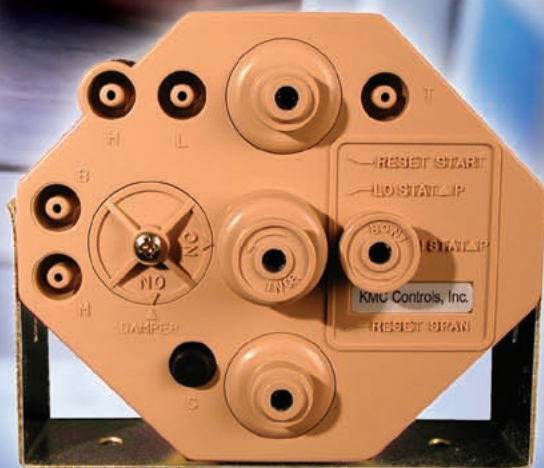




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building your comfort zone®

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Electronic and Pneumatic Controls

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Sections and products by section are in alphabetical order wherever feasible. This includes categories of sections (e.g., Actuator Accessories and Repair Parts, Actuators, Enclosures, Fan Speed and Fan Coil Unit Controls) and product model numbers within their respective sections (e.g., CME-1000, CME-2001/2002, CME-2003). Also, all electronic products are followed by all pneumatic products.

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SEE ALSO: The *Abbreviations, Codes, and Definitions* section.

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Introduction





Finding Information in this Catalog

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SEE ALSO: The interactive *KMC Desktop* in the Products and Solutions section of the *KMC web site* for quick and easy downloading of brochures, data sheets, installation guides, and other information.

Products in this Catalog

Electronic and pneumatic controls for heating, air conditioning, and ventilation shown in this catalog are available worldwide from KMC Controls authorized wholesalers.

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SEE ALSO: The interactive *Valve Selection Tool* in the Products and Solutions section of the *KMC web site*.

SEE ALSO: The interactive *Actuator Selection Tool* in the Products and Solutions section of the *KMC web site*.



SP-071



About KMC Controls

KMC Controls (formerly Kreuter Manufacturing Company) has been designing and manufacturing building automation solutions, HVAC control products, and energy management solutions since 1970. KMC remains the only privately held US controls manufacturer with a full line of digital, electronic, and pneumatic products in the USA.

KMC is dedicated to developing and maintaining controlled processes to competitively service our world-wide customer base, with building control products that meet government regulations, international standards, and customers requirements. KMC has an ISO 9001:2000 registered quality system in place. We meet the highest quality standards and can still quickly make changes dictated by the needs of the market. Our quality and quick response have led to reliable production of a complete line of pneumatic, analog electronic, and digital controls.

KMC maintains regional sales offices throughout the U.S. and distributes its solutions and products through value-added, authorized installing contractors, wholesalers, and OEMs throughout North America as well as authorized distributors worldwide.

KMC's intellectual property includes dozens of patents, but even the very best widgets would be worthless without proper support. Our Customer Service representatives excel at establishing personal relationships with their assigned customers. They know our product



lines, have real-time inventory information at their fingertips, and can advise on product cross-reference information as well as all shipping options. The responsiveness of our team is unsurpassed, and they are available via toll-free telephone/fax and email.

For technical support, authorized installing contractors have unlimited free access to our knowledgeable team of Technical Support representatives from 8 AM to 8 PM (Eastern Standard Time) every business day. Our representatives are experienced in field operations, are fully trained in KMC product lines, have a wealth of product and system information available to them, and have ready access to design and software engineers as needed.

KMC Web Site and Publications

The purpose of the award-winning www.kmccontrols.com is to support you, our valued partners in your KMC-related endeavors. Once you log in, general and product-specific information will be at your fingertips.

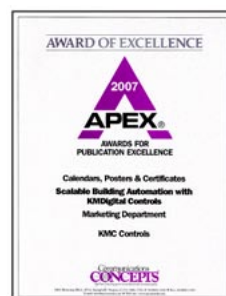
To get the most from the site, log in using your current user name and password. Your rep login determines what information you can access. The "Portal" button will allow you to go to the "Manage Account" page where you can edit your profile and specify preferences for receiving automatic information updates.

Most product information is available through the "Products" button or the Product Search field. In the Product Wizard, our product line has been organized into major product categories and subcategories. Follow these branches to find specific products. You may also enter model numbers or key words into the search box for immediate access to the specific product you seek. While the public can view basic product information, you must be logged in to see product pricing and other associated information.

The "Support > Downloads" button offers access to numerous files that are organized into Marketing/Sales Information and Technical Support information. You can also download and print groups of data sheets from the catalog files.

Besides product data, you can also find information about KMC as a company, contacts, training, sales tools, upcoming events, press releases, and other information.

We are constantly striving to improve the quality of the information we provide. This quest for quality is reflected in the web site and a number of our publications having won awards for publication excellence in recent years.



SEE ALSO: The interactive [KMC Desktop](#) in the Products and Solutions section of the [KMC web site](#) for quick and easy downloading of brochures, data sheets, installation guides, and other information.



KMC Terms and Conditions of Sale

Contact Information

Customer Service

- Phone: 866.302.4562
- Fax: 800.276.5555
- Email: customerservice@kmccontrols.com

Technical Support

- Phone: 866.303.4562
- Fax: 800.276.5555

Standard Terms & Conditions of Sale

All sales by KMC Controls, Inc. ("KMC") to Customer are governed by and subject to the following Standard Terms & Conditions of Sale. "Customer" refers to the original purchaser of KMC products. These Standard Terms & Conditions of Sale form a binding agreement between KMC and Customer, and this agreement incorporates by reference all additional terms and conditions stated in quotations, pricelists, invoices, order acknowledgements and other documentation furnished by KMC to Customer. Any proposal for additional or different terms, or any attempt by Customer to vary in any degree any of the terms of these Standard Terms & Conditions of Sale shall be rejected by KMC. These Standard Terms & Conditions of Sale may be amended from time to time at the sole and exclusive discretion of KMC without any obligation to notify customer of such changes. All such changes shall be effective on the earlier of (i) written notice of such change(s) to Customer, or (ii) such change(s) as modified on the Standard Terms & Conditions of Sale published on KMC's website. Any changes to the KMC Standard Terms & Conditions of Sale are binding and enforceable only if made in writing and signed by an authorized officer of KMC. If Customer has not otherwise agreed to these terms, Customer's acceptance of delivery of, or full or partial payment for, the products will constitute Customer's acceptance of these Standard Terms & Conditions.

Any cause of action arising from these Standard Terms & Conditions of Sale, or breach hereof, must be commenced within thirty (30) calendar days after the cause of action occurs, and in any event within one (1) year from the delivery of the product to Customer, provided that this limitation shall not apply to actions by KMC to recover the purchase price of products sold hereunder. These Standard Terms & Conditions of Sale and any description in KMC's price (listing) manual constitute a complete and exclusive statement of the terms and conditions of the sale of the products by KMC to Customer. There are no other promises, conditions, understandings, representations or warranties. No waiver of any right will be effective against KMC unless supported by consideration and expressly stated in writing signed by a duly authorized officer of KMC. The failure of KMC to enforce any right will not be construed as a waiver of KMC's right to performance in the future. Customer may not assign any right to, or delegate any performance owed under, these Terms & Conditions of Sale without the written consent of an authorized officer of KMC. KMC shall have the right to credit any sums which may now or hereafter be owed by KMC to Customer toward the payment of any monies that may become due by KMC hereunder.

Customer is encouraged to visit the KMC website at www.kmccontrols.com to obtain the current version of the Standard Terms & Conditions of Sale.

Orders; Acknowledgements

Any purchase order form may be used by Customer to send an order to KMC. Orders may be submitted to KMC via email, facsimile or US Mail. Partial orders will be invoiced as shipped. Customer should specify at time of order if partial shipments are unacceptable. KMC will issue Customer, via email or facsimile, an order acknowledgement for each purchase order received by KMC from Customer providing the anticipated ship date.

Product Availability

Product lead times (order entry to shipment) vary based upon the two product designations below and current demand for each item. Please refer to order acknowledgements for specific dates assigned to each order or contact your Customer Service Representative for specific details. Items noted below are subject to change without notice.

- All items, except noted in item #2 below, (including a select range of ball valves up to 1") will have an approximate lead time of no more than five (5) business days
- Most valves, special order items, lighting panels, energy & power meters will have an approximate lead time of ten (10) days to six (6) weeks

Non-Cancellable Non-Returnable Items

Some items have been designated as "NCNR" for Non-Cancellable and Non-Returnable. A list of these items is available to Customer at www.kmccontrols.com. KMC reserves the right to modify this list without prior notification to Customer.

Cancellation/Restocking Fee

Any order over \$25,000 is subject to a cancellation fee at KMC's discretion based on product mix.

- Cancellation eleven (11) or more days prior to scheduled ship date will be assessed a fee equal to 25% of the items total value.
- Cancellation ten (10) days or less prior to scheduled ship date will be assessed a fee equal to 40% of the items total value.

In addition, standard restocking fees may apply for order line items that are cancelled per the above schedule.

Storage Fee

Storage fees will be assessed to all orders in which KMC must hold a shipment more than five (5) business days pending such items as delivery address or shipping method.

- Orders with a total value of less than \$10,000 will be assessed a fee of \$50.00 per day.
- Orders with a total value of more than \$10,000 will be assessed a fee of \$100.00 per day.



Expedited Delivery and Fee

An order with a requested ship date less than the normal lead time will be assessed an Expedite Fee. This fee will be equal to the greater of \$25.00 Net or 5% of the net value of the expedited products.

An order will only be expedited if:

- Customer account is in good standing
- Order is received by 12:30 PM Eastern Time for same day shipment
- Customer Service agrees that the products can be expedited

If the products are not in stock and cannot be shipped on the requested ship date, notification of the anticipated ship date will be made. The Expedite Fee will apply if the Customer requested ship date is earlier than five (5) business days after receipt of order by KMC.

Advanced warranty replacement parts will not be assessed the Expedite Fee. The RMA Number assigned by Customer Service must be specified on the purchase order.

Minimum Order

Our minimum order is \$100.00 Net. A handling fee of \$30 will be applied to any orders under this Net value.

COD Fee

A COD Fee of \$25.00 will be assessed to any shipment requiring Cash On Delivery. COD orders cannot be expedited and may require an extension of the normal lead time for shipment.

Shipping

All products shall be shipped *F.O.B. Point of Origin and/or Vendor's Facility* (dependent upon the location of the products at the time of loading for shipment to Customer) by the method of shipment and routing determined by KMC, except as otherwise specifically agreed in writing by KMC and Customer. Shipments are subject to the standard limitations on loss or liability imposed by the carrier, except to the extent Customer submits an advance written request for higher loss coverage as available from the carrier at Customer's cost.

Providing inaccurate shipping account numbers to KMC will result in a separate billing of your freight and a \$50 penalty fee.

For shipments via truck line, damage claims must be handled directly with the truck line. Customer shall be responsible for any and all claims for damage during truck line shipment.

Customer shall inspect ALL shipments immediately upon receipt for damages caused during shipment, and Customer shall notify both the carrier and KMC of any damage immediately. Product furnished by KMC in all events will be deemed to have been accepted by Customer within thirty (30) days after receipt by Customer. Any claim for credits and/or charge backs related to damage during shipment will be considered by KMC only if (a) received by KMC within thirty (30) days of the shipping date and (b) submitted to KMC in writing with a complete description identifying the specific product and the reason that Customer is claiming a credit and/or chargeback for damage during shipment. Credits and/or charge backs may be denied by KMC in KMC's sole discretion.

Credit Terms; Credit Hold

Terms of sale are determined by KMC. Terms begin the date of the shipment, which is also the invoice date. All invoices paid after the due date listed on the invoice will be assessed the late payment service charge the lesser of eighteen percent (18%) per annum or the maximum amount allowed by applicable law. If, in the sole discretion of KMC, the financial condition of Customer at the time products are ready for shipment does not justify the terms specified, KMC reserves the right to change the terms or to require full or partial payment in advance of shipment. KMC may, at any time, suspend performance of any order or require payment in cash, security or other adequate assurances satisfactory to KMC. All sales are subject to the approval of KMC's credit department. Service charges are not optional. Any unpaid invoice will result in Customer being placed on credit hold, as determined by KMC. Orders will not be released to production if Customer's account is on credit hold.

Returned Check Fee

A Returned Check Fee will be charged to accounts when a check is returned to KMC Controls for nonpayment by the issuing bank. The returned check fee is \$50 and is charged for each returned check. KMC Controls reserves the right to refuse to accept checks as payment and may, at our discretion, accept only credit card or COD payments.

When a check is returned, the account is still considered due and is subject to Credit Hold under the policy stated above.

Returns Policy

This returns policy applies to all products returned to KMC from Customers in the United States or Canada within the respective warranty period applicable to the returned product. The warranty period begins on the date stated on the product date code.

NOTE: In markets outside of the United States and Canada, the Company reserves the right to further limit our factory warranty coverage due to the cost of trans-shipment of warranty goods between countries. Customers in these countries should consult directly with KMC to establish the warranty policies that will be in effect in their markets.

Products may be returned to KMC by contacting your Customer Service Representative and requesting a Return Material Authorization (RMA). Customer will be provided with a RMA number and Customer must include this assigned RMA number on the shipping label of the product to be returned. Products should be returned (transportation prepaid) to:

KMC Controls
Attn: Returns
19514 Industrial Drive
New Paris, IN 46553

Returned products must be adequately packaged to protect from damage during transportation. This will enable KMC to more accurately evaluate returned products and continuously achieve quality improvement. KMC will not be responsible for any damage to returned product resulting from improper packaging or damage during return shipment to KMC. Customer shall be solely responsible for the packaging and protection of returned product during return shipment to KMC..



When returned products are received, KMC will notify Customer of KMC's receipt. Replacement product, if required, will be shipped within three (3) business days when possible. KMC reserves the right to replace any defective or damaged product with a functional equivalent if available. KMC shall provide Customer with a Returns Summary no later than two (2) weeks after receipt of the return.

Failure to follow these product return requirements or return of product that is out of warranty will result in a thirty (30) calendar day in-house storage of Customer's product, pending disposition and no further reconciliatory action on our part. Should Customer fail to provide instruction regarding the disposition of product to KMC after the expiration of the thirty (30) day periods set forth herein, the product shall become the property of KMC and KMC shall dispose of such products in any manner as KMC deems appropriate.

Product being returned for restocking must be (i) no older than six (6) months from the date of shipment of the product, (ii) new, (iii) unused, and (iv) in the original packaging in which the product was received by Customer from KMC. A 25% restocking fee will be assessed for all products.

Limited Warranty

(See also the separate warranty section on the next page.)

KMC provides a limited warranty on its products. KMC warrants that its product sold hereunder will, for sixty (60) months from the product date code, be free and clear of all liens and encumbrances and will be free from defects in material and workmanship and will conform to KMC's applicable specifications, all as set forth in KMC's Limited Warranty. To obtain a copy of the complete KMC Limited Warranty, Customer is encouraged to (i) visit www.kmccontrols.com, (ii) contact Customer's KMC Customer Service at (574) 831-5250, or (iii) submit a written request to obtain a copy of the KMC Limited Warranty to KMC Customer Service via facsimile at (574) 831-5252.

CUSTOMER ACKNOWLEDGES AND DECLARES THAT THESE LIMITATIONS AND WAIVERS HAVE BEEN BROUGHT TO CUSTOMER'S ATTENTION AND EXPLAINED, THAT CUSTOMER HAS READ AND UNDERSTANDS ALL TERMS AND AGREES TO BE SO BOUND, AND THAT CUSTOMER'S RECEIPT OF THE STANDARD TERMS & CONDITIONS OF SALE, LIMITED WARRANTY AND PRODUCTS, AND ANY PAYMENT FOR THESE, SIGNIFIES THAT CUSTOMER HAS VOLUNTARILY AND KNOWINGLY CONSENTED TO ALL TERMS, INCLUDING THE WAIVERS AND LIMITATIONS CONTAINED HEREIN.

NOTE: In markets outside of the United States and Canada, the KMC reserves the right to further limit its factory warranty coverage due to the cost of trans-shipment of warranted products between countries. Customers in these countries should consult directly with KMC to establish the warranty policies that will be in effect in their markets.

Force Majeure Clause

Fulfillment of any order is contingent upon the availability of materials. KMC shall not be liable for any delay in delivery or for non-delivery in whole or in part caused by the occurrence of any contingency beyond the control of either KMC or suppliers to KMC including but not limited to war, sabotage, acts of civil disobedience, failure or delay in transportation, act of any government or agency or subdivision thereof, judicial action, labor dispute, fire, accident, explosion, epidemic, quarantine, restrictions, storm, flood,

earthquake or acts of God, shortage of labor, fuel, raw material or machinery or technical failure where KMC has exercised ordinary care in the prevention thereof. If any contingency occurs, KMC may allocate production and deliveries among KMC's customers. If the KMC, in its sole discretion, determines that KMC's performance hereunder would result in a loss to KMC on this sale, as computed under KMC's normal accounting procedures because of causes beyond KMC's control, then KMC may terminate Customer's order in whole or in part without liability for any delay in the delivery of or failure to deliver the goods sold hereunder.

Confidential Information

All drawings, diagrams, specifications, pricing and other materials furnished by KMC and identified as confidential, relating to the use and service of products furnished and the information therein, are proprietary property of KMC. Such materials have been developed at great expense and they contain trade secrets of KMC. Customer may not reproduce or distribute such materials. All such materials relating to the products supplied directly by KMC (except information as may be established to be in the public domain or disclosed pursuant to judicial or government action) shall be received in confidence and Customer shall exercise reasonable care to hold such information in confidence.

Prices

The Customer's purchase price for products shall be the price in effect at the time of receipt of the purchase order by KMC. KMC shall notify Customer of any change in the price of products through the order acknowledgement. If there is a delay in completion of shipment of an order due to any change requested by the Customer or as a result of any delay on Customer's part in furnishing information required for completion of the order, the price agreed upon at the time of acceptance of the order is subject to change. Prices are F.O.B. Point of Origin and/or Vendor's Facility and are exclusive of all taxes.

Governing Law

These Terms & Conditions of Sale shall be considered to have been made in the State of Indiana and shall be governed by and interpreted according to Indiana law, without giving effect to conflict of law principles. Except as provided below, any action or claim arising out of or relating to these Standard Terms & Conditions of Sale may be brought only in a state court in Elkhart County, Indiana, or a federal court in the Northern District of Indiana, South Bend Division, having jurisdiction over the subject matter, and Customer irrevocably consents that such court shall have personal jurisdiction over Customer and waives any objection that the court is an inconvenient forum. Alternatively, and at KMC's sole election, any dispute arising out of or relating to these Standard Terms & Conditions of Sale shall be submitted to binding arbitration in Elkhart, Indiana in accordance with the rules of the American Arbitration Association. Any award ordered in such arbitration shall be enforceable in any court of competent jurisdiction. In the event any claim, lawsuit or demand for damages is brought against KMC by Customer for any reason, including but not limited to any claims, lawsuits or demands for damages relating in any way to KMC's products, claims of violation of these Standard Terms & Conditions of Sale, or claims waived or released under these Standard Terms & Conditions of Sale, Customer agrees to pay KMC's attorney, paralegal fees and KMC's expenses and costs to defend such suit.



KMC Limited Warranty

To the original purchaser, KMC Controls, Inc. ("KMC") warrants its products for sixty (60) months from the product date code (i) to be free and clear of all liens and encumbrances, (ii) to be free from defects in material and workmanship and (iii) to be in conformity with KMC's applicable specifications. THE FOREGOING WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES NOT EXPRESSLY SET FORTH HEREIN, WHETHER EXPRESSED OR IMPLIED BY OPERATION OF LAW OR OTHERWISE INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PURPOSE OR USE. THE REMEDY OF REPAIR, REPLACEMENT OR REFUND PROVIDED UNDER THIS WARRANTY IS EXCLUSIVE TO KMC AND IN LIEU OF ALL OTHER REMEDIES. KMC WILL, AT ITS ELECTION, REPAIR, REPLACE OR MAKE APPROPRIATE ADJUSTMENTS WHERE KMC INSPECTION DISCLOSES ANY SUCH DEFECTS OCCURRING IN NORMAL USAGE WITHIN SIXTY (60) MONTHS FROM THE PRODUCT DATE CODE. KMC IS NOT RESPONSIBLE FOR REMOVAL OR INSTALLATION COSTS. KMC SHALL HAVE NO LIABILITY TO THE CUSTOMER OR ANY OTHER THIRD PARTY FOR CONSEQUENTIAL, SPECIAL, INCIDENTAL, INDIRECT, EXEMPLARY OR PUNITIVE DAMAGES OF ANY KIND WHATSOEVER, INCLUDING WITHOUT LIMITATION PERSONAL INJURY, DEATH, PROPERTY DAMAGE, LOST PROFITS, LABOR COSTS, OR ANY OTHER PECUNIARY DAMAGE, WHETHER DUE TO ANY DEFECT IN THE PRODUCT, BREACH OF KMC'S STANDARD TERMS & CONDITIONS OF SALE, DELAY, NON-DELIVERY, NON-PERFORMANCE, RECALL OR ANY OTHER REASON. ALL CLAIMS IN TORT, STRICT LIABILITY, AND FAILURE OF ESSENTIAL PURPOSE ARE WAIVED, RELEASED, AND EXCLUDED, INCLUDING CLAIMS OF KMC'S NEGLIGENCE. KMC SHALL NOT BE LIABLE TO THE CUSTOMER IN TORT, STRICT LIABILITY, OR ANY OTHER

LEGAL OR EQUITABLE THEORY FOR ANY DEFECT IN THE DESIGN OR MANUFACTURE OF THE PRODUCTS, OR FOR THE OMISSION OR ALLEGED INADEQUACY OF THE WARNINGS OR INSTRUCTIONS ACCOMPANYING THE GOODS. EXCEPT FOR THE LIMITED WARRANTY HEREIN, THE CUSTOMER ACCEPTS THE GOODS "AS IS" WITH ALL FAULTS AND ASSUMES THE RISK OF LOSS FOR ANY DEFECTS OR NONCONFORMITY. CUSTOMER WAIVES, RELIEVES AND RELEASES KMC FROM ANY AND ALL CLAIMS, CAUSES OR RIGHTS OF ACTION, AND LIABILITY FOR ANY PATENT OR LATENT DEFECTS IN THE PRODUCTS, EXCEPT AS SPECIFICALLY PROVIDED IN THIS LIMITED WARRANTY. UNDER NO CIRCUMSTANCES SHALL KMC'S LIABILITY FOR ANY DEFECT IN THE PRODUCTS, WHETHER BASED ON CONTRACT, TORT, WARRANTY, STRICT LIABILITY, OR ANY OTHER THEORY, EXCEED THE PURCHASE PRICE OF THE DEFECTIVE GOODS.

NOTE: In markets outside of the United States and Canada, the KMC reserves the right to further limit coverage of the KMC Limited Warranty due to the cost of trans-shipment of warranted products between countries. Customers in these countries should consult directly with KMC to establish the warranty policies that will be in effect in Customers' respective markets.

Some states/provinces do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of special, incidental or consequential damages, so these limitations and exclusions may not apply to the Customer. This limited warranty provides Customer with specific legal rights. Customer may also have other rights which vary from state/province to state/province.



Returns Policy

Material Return Form

Doc.: GN-0042

Page 2 of 2

Revised 4-15-09

Form must be entirely completed to expedite the material return process.
Incomplete forms or inaccuracies will cause delays.

Submitted by: _____ Date: _____

Company: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Tel. No.: _____ Fax No.: _____ Email: _____

Reason for Return:

☐
☐
☐

Credit: New & Unused

Warranty Repair Request

Shipping Error

Please provide 1 of the following:

Customer PO #: _____

KMC Sales Order #: _____

KMC Invoice #: _____

► Return Product to: ☐ Address Above or ☐ Address Below

Company: _____ Attn.: _____

Address: _____

City: _____ State: _____ Zip Code: _____

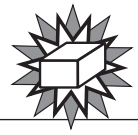
Tel. No.: _____ Fax No.: _____ Email: _____

Qty.:	Model No.:	Date Code:	Specific Reason for Return:	KMC Use:

Please carefully package and ship product returns prepaid to:

KMC Controls
Return Material
19514 Industrial Drive
New Paris, IN 46553

RMA No.: _____ (Factory Assigned)



Featured Products



BAC-10000 Series

FlexStat™ BACnet Programmable Thermostats



SB-049 BAC-10000 Series
FlexStat Brochure

This series of intelligent temperature/humidity-sensing, wall-mounted, thermostat/controllers are native BACnet Advanced Application Controllers (B-AAC) for use in a BACnet system. The FlexStat simplifies networked zone control for common packaged HVAC equipment, such as packaged roof top units, fan coil units, heat pumps, and other similar applications. In addition, applications such as pressure-dependent VAV, terminal reheat, and medium-sized central-station air-handling-equipment applications may also be addressed through the libraries of programs built into the devices.

The on-board library of programs permits rapid configuration of a wide range of HVAC control applications, including, for example, single- and multi-stage packaged, unitary, and split systems, factory-packaged economizers, field-applied economizers, water-source and air-to-air heat pumps, fan coil units, and central-station air handling units.

Standard hardware options include a mix of output configurations (relays and analog outputs), on-board humidity and occupancy sensing, and inputs for additional analog and binary type remote external sensors, such as outside air temperature sensors, duct temperature sensors, and air differential air pressure switches.

SEE: The [\(Electronic\) Thermostat](#) section.

STE-6000 Series

Room Temperature Sensors



STE-6010/6011

STE-6013/6015

STE-6012/6016



STE-6014

STE-6017/6019

STE-6018/6020



SB-041 STE-6000 Series Room
Temperature Sensors Brochure

These compact, stylish, and economical room temperature sensors are designed for use in KMC Digital controllers or other building automation systems. They incorporate a 10,000 ohm (@ 77° F) thermistor for precise, stable temperature sensing and offer a variety of features. The durable, low-profile, thermostat-style cover is visually appealing. These sensors may be surface mounted on a hollow wall or to a 2 x 4 in. electrical box.

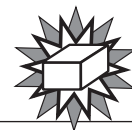
An STE-6014/6017/6019/6018/6020 includes a **rotary setpoint dial** that **now has universal warmer/cooler icons instead of degrees F or C**.

An STE-6013/6015/6017/6019/6018/6020 allows selection of an **override** condition by pushing the **button** on the front. A **green status LED** (not on the STE-6017/6019) illuminates according to the user-defined controller configuration (e.g., during setback/setup or during normal/override modes).

An STE-6012/6016 includes an **LCD display** for the room temperature and setpoint. The temperature display can be toggled between Fahrenheit and Celsius scales. The **setpoint is adjustable via the up and down arrow buttons** on the front panel. If the system is in normal/override mode, pressing a button will raise or lower the setpoint. When either button is pushed, the display will toggle from room temperature to the setpoint. When the button is released, the number displayed is the new setpoint, and the display will return to room temperature after ten seconds. If the system is in setback/setup (for heating/cooling) mode, pressing either button selects override mode.

An STE-6010/6014/6015/6016/6017/6018 includes a four-pin EIA-485 (formerly RS-485) **data port** on the cover's underside for easy temporary computer connection to the network. (Access with a KMD-5624 cable.)

SEE: The [\(Electronic\) Sensors and Transmitters](#) section for more information.



Featured Products

CTE-5201-16 Electronic Room Thermostat



The KMC CTE-5201 is a single setpoint, direct-acting electronic room thermostat. Use the CTE-5201 with actuators with high impedance inputs (10K ohms or higher) that require a 0–10 VDC input.

It has adjustable minimum and maximum limits. The large, LCD display with backlighting for easy viewing can display space temperature in either degrees Fahrenheit or degrees Celsius.

Connections are through a six-wire modular jack (RJ-12 connector) for quick installation.

SEE: The [\(Electronic\) Thermostat](#) section.

KIT-1000 Series Pneumatic Repair Kits



KIT-1004



KIT-1005

Get parts for popular pneumatic applications in one convenient kit. Kits include:

- CSC-3011-10 reset volume controller (all but KIT-1005)
- CTC-1621 DA two-pipe thermostat (all but KIT-1005)
- MCP-8031-3101 damper actuator (all but KIT-1005)
- CCE-1001 pneumatic-electric relay (KIT-1003/1004 only)
- VCZ-41 series two-way, NPT, control zone valve (KIT-1003/1004 only)
- SSS-1000 series air flow sensors (KIT-1005 only)
- HMO-5500 universal thermostat upgrade kit (all but KIT-1005)
- Tube assemblies (from HFO-0028) with eyelets and 1/4" adapters (all but KIT-1005)

For more information about individual products in the kit, see the Index for the appropriate page reference.

Models

KIT-1001	Kit, Cooling Only
KIT-1002	Kit, Electric Reheat and Fan Powered
KIT-1003	Kit, HW Reheat and Fan Powered, 22.3K BTU
KIT-1004	Kit, HW Reheat and Fan Powered, 55.8K BTU
KIT-1005	Kit, Air Flow Sensing

SEE: [KIT-1000 Series Pneumatic Kits](#) in the [Compressed Air Accessories](#) section.



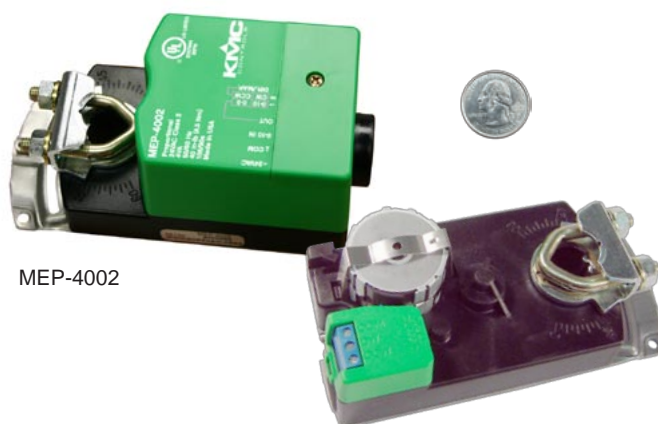
SB-031 Pneumatics
Overview Brochure



SB-055 Pneumatic
Kits Brochure

MEP-4000/4800 Series

Direct-Coupled, ControlSet® Actuators (40 or 80 in.-lbs.)



MEP-4002

MEP-4003 (Only)



SB-039 MEP-4000 Series
ControlSet Actuators Brochure

SEE: The [\(Electronic\) Actuators](#) section for more information.

The compact but powerful MEP-4000/4800 series direct-coupled actuators provide tri-state or proportional control for small dampers in HVAC systems. A minimum torque of 40 or 80 in.-lbs. is now available over the 95° angular rotation.

The MEP-4002/4022/4802/4822 **proportional** actuator models accept a 0–10 volts DC control signal input from a thermostat, controller, or building automation system. A user-initiated, **auto-mapping feature** provides better equipment control by reassigning the 0–10 volts DC input signal range over a reduced rotation range (from 45 to 95°). These models also feature a switch-selectable, 0–5 or 0–10 volts DC **voltage feedback output** that is proportional to the actuator position.

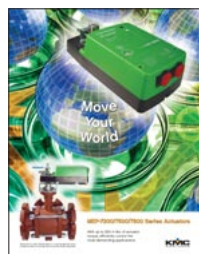
The MEP-4001/4013/4021/4801/4813/4821 **tri-state** models are designed for use with **floating** thermostats, controllers, or building automation systems. The MEP-4013/4813 models feature a 10,000 ohm (+/- 10%), three-wire **potentiometer feedback output**. (Functionally like the MEP-4001, the economical new **MEP-4003** does not have the large green top enclosure.)

The MEP-4021/4022/4821/4822 models also have a fully adjustable, built-in SPDT **auxiliary switch**, for remote position indication or controller and equipment interface.

All MEP-4000/4800s mount directly to 1/4- to 5/8-inch (6 to 16 mm) round shafts or 1/4- to 7/16-inch (6 to 11 mm) square shafts, eliminating the need for expensive and complicated linkages. A non-rotation bracket, to prevent lateral movement, is included with each actuator. A gear disengagement feature allows manual positioning of the actuator. Some models are also available on the VEP/VEG/VEV series ball valves.

MEP-7200/7500/7800 Series

Direct-Coupled, ControlSet® Actuators (120/180/320 in.-lbs.)



SB-009 MEP-7200/7500/7800
Series Actuators Brochure

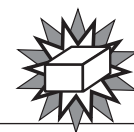
These powerful, efficient, durable, direct-coupled actuators provide tri-state or proportional control for large control air dampers or valves in HVAC systems. A minimum torque of 120, 180, or 320 in.-lbs. is available over the 94° angular rotation. Capacitor-driven fail-safe models provide efficient operation with switch-selectable fail direction.

The **proportional** actuator models accept a 0–10 VDC or 4–20 mA **control signal** input from a thermostat, controller, or building automation system. “**Anti-jitter**” circuitry significantly reduces hunting and needless wear on the actuator and valve packing or damper components (from unnecessary miniscule position changes caused by undamped analog input signals). A user-initiated, **auto-mapping feature** provides better equipment control by reassigning the (0–10 VDC or 4–20 mA) input signal range over a reduced rotation range (from 45° to 94°). These models also feature a switch-selectable, 0–5 or 0–10 VDC **voltage feedback output** that is proportional to the actuator position.

The **tri-state** models are designed for use with **floating** thermostats, controllers, or building automation systems. They feature a 10,000 ohm (±10%), three-wire **potentiometer feedback output**.

All actuators mount directly on 3/8" up to 1.05" round or 5/16" up to 5/8" square shafts, eliminating the need for expensive and complicated linkages. A non-rotation bracket, to prevent lateral movement, is included with each actuator. A gear disengagement button allows manual positioning of the damper and/or gear train without energizing the actuator. Removable terminals and 1/2" NPS conduit fittings make wiring easier. The actuators are protected against overloading and do not require end or limit switches.

SEE ALSO: The interactive [Actuator Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).



Featured Products

VCB-41/42 Series and VCB-46 Series 2-Way and 3-Way, NPT, Pneumatic, Control Ball Valves



SB-021 KMC Control Ball
Valves Brochure

These innovative pneumatic valves give a new level of flexible control in pneumatic applications. They are the industry's only pneumatic control ball valves.

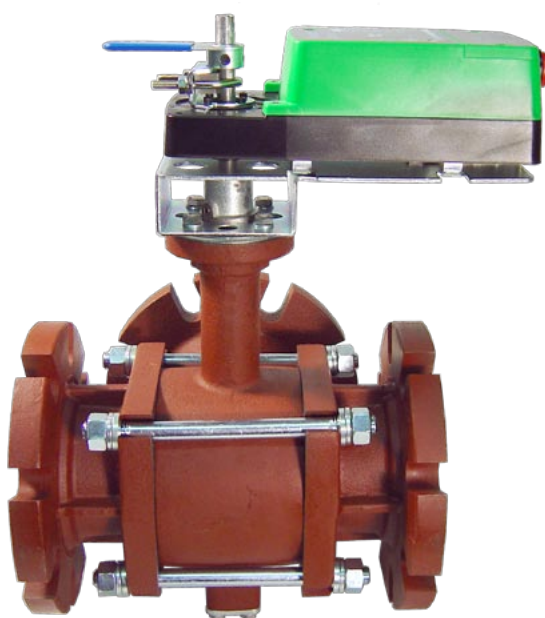
The **VCB-43 series two-way**, NPT, ball valves are designed for the precise control of hot or chilled water in pneumatic HVAC applications. Valves range in size from 1/2 to 3 inches and feature an optimizing insert (except for indicated models), which reduces and characterizes the ball opening for equal percentage flow. This design allows the output at the coil to be linear when compared to the open area of the ball.

The **VCB-46 series**, NPT, **three-way, mixing or diverting**, control ball valves are designed for the precise control of hot or chilled water in pneumatic HVAC applications. Valves range in size from 1/2 to 2-1/2 inches and feature an optimizing insert (except for indicated models), which reduces and characterizes the ball opening for equal percentage flow. This design allows the output at the coil to be linear when compared to the open area of the ball.

The valve's dual Teflon ball and stem seals and EPDM O-rings provide leak-proof shut off and meet both "packed" and "packless" construction specifications. The reduced torque seals and O-rings eliminate the need for high torque actuators. KMC's MCP-3631 series actuators work on all valve sizes. The actuator can easily be flipped over in the field to change the fail direction.

SEE: The [\(Pneumatic\) Valves](#) section.

VEB-53 Series and VEB-56 Series 2-Way and 3-Way, Flanged, Control Ball Valves



The **VEB-53 series** control ball valves are **two-way** flanged valves, designed for control of hot water or chilled water. These valves range in size from 4 to 6 inches with equal-percentage flow characteristics. Leak-proof, blow-out-proof stems, and stainless steel ball and stem make these valves ideal for many applications.

The **VEB-56 series** control ball valves are **three-way mixing or diverting** flanged valves, designed for control of hot water or chilled water. These valves range in size from 4 to 6 inches with equal-percentage flow characteristics. Leak-proof, blow-out-proof stems, and stainless steel ball and stem make these valves ideal for many applications.

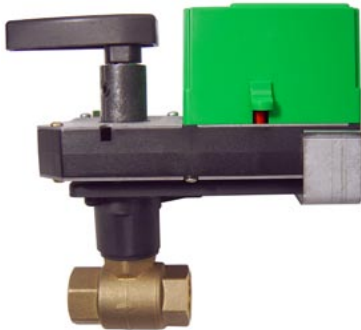
These valves use KMC MEP-7200/7500 Series ControlSet® actuators with **proportional or tri-state inputs**. Proportional models accept a 0–10 VDC or 4–20 mA control signal input from a thermostat, controller, or building automation system.

SEE: The [\(Electronic\) Valves, Flanged](#) section.

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

VEB-4303*SDL Series

2-Way, Steam-Rated, NPT, Control Ball Valves (3/4")



SEE: The [\(Electronic\) Valves, NPT](#) section.

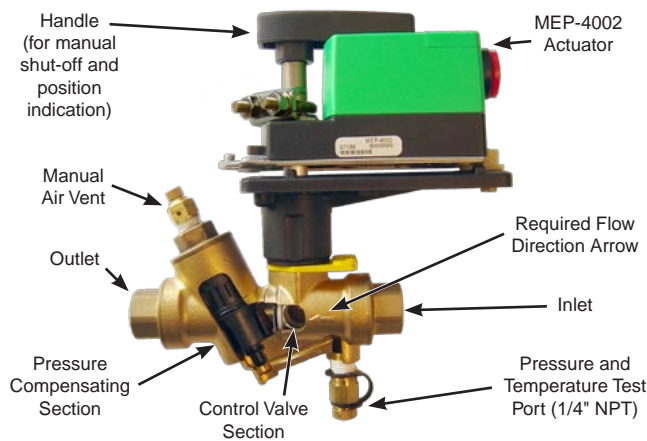
These two-way, 3/4" NPT, ball valves are designed for the control of hot or chilled water in HVAC applications. They can also control low-pressure (up to 30 psi) steam applications. Valves produce equal percentage flow, allowing the heat output at the coil to be linear when compared to the open area of the ball.

The MEP-5372 proportional actuators may be controlled via a 2–10 VDC control signal from a thermostat, controller, or building automation system. Actuators are factory-calibrated for a 2–10 VDC input signal (or 4–20 mA with an external 500 ohm resistor) and 90° clockwise rotation. Counterclockwise rotation is obtained by simply toggling a switch.

Capacitor-driven fail-safe provides efficient operation with switch-selectable fail direction. A gear disengagement button allows manual positioning of the valve without energizing the actuator.

VEV-43 Series

Pressure-Independent, 2-Way, NPT, Control Ball Valves



SEE: The [\(Electronic\) Valves, NPT](#) section.

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

The VEV-43 series pressure-independent, two-way, NPT, control ball valves provide precise control of hot or chilled water in HVAC applications—in spite of fluid pressure fluctuations or reduced load conditions. They also eliminate separate balancing valves and the balancing process. Valves range in size from 1/2 to 2 inches.

The valve's dual Teflon ball and stem seals and an EPDM O-ring provide leak-proof shut off and meet both "packed" and "packless" construction specifications. The reduced torque seals and O-rings eliminate the need for high torque actuators. The VEV-43 is designed to work with KMC's low-torque MEP-4000/5000 series actuators on all valve sizes with various control and fail-safe options.

SB-021 KMC Control Ball Valves Brochure

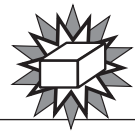


HTO-1001 Conduit Wrench, 1/2 and 3/4"



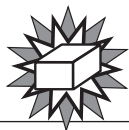
This KMC-designed wrench simplifies the tightening of (1/2 and 3/4-inch) locknuts at conduit boxes and other similar applications. It saves the technician's knuckles!

SEE: [\(Electronic\) Actuators Accessories and Repair Parts](#) section.



Brochures and Promotional Items

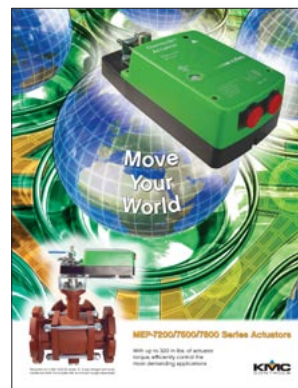




SB-052 KMC Corporate Capabilities Brochure



SB-048 Green Buildings (LEED) Controls Brochure



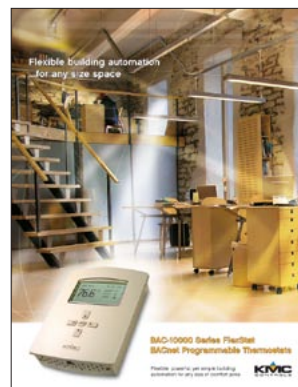
SB-009 MEP-7200/7500/7800 Series Actuators Brochure



SB-021 KMC Control Ball Valves Brochure



SB-039 MEP-4000 Series ControlSet Actuators Brochure



SB-049 BAC-10000 Series FlexStat Brochure



SB-037 Product Overview

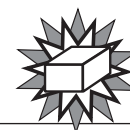


SB-041 STE-6000 Series Room Temperature Sensors Brochure

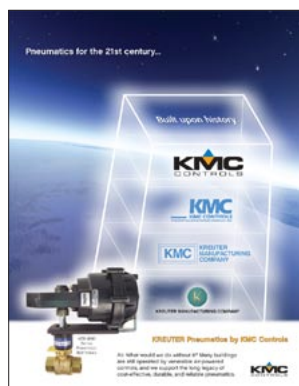


SB-023 FirstWatch (SLE-1001, IEI-1110) Refrigerant Monitor Brochure

These documents may be downloaded from the KMC web site in Adobe Acrobat PDF format.
For more detailed product information, see the individual data sheets on the web site.



Brochures and Promotional Items



SB-031 Pneumatics Overview Brochure



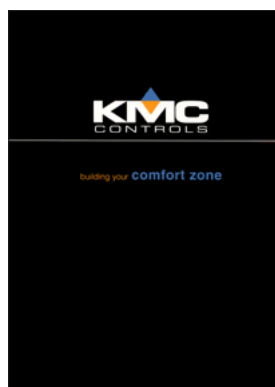
SB-055 Pneumatic Kits Brochure



SB-046 Green Building and Controls Glossary (pocket-sized booklet of industry terms)



SB-053 Corporate Capability DVD



SB-029 Literature Folder



SB-033 Proposal/Submittal Cover with 3/8" Spine



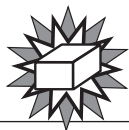
SP-019 (Electronic and Pneumatic) Product Catalog*



SP-001 Screwdriver, flat blade and hex ends, with KMC logo

SEE ALSO: The interactive [KMC Desktop](#) in the Products and Solutions section of the [KMC web site](#) for quick and easy downloading of brochures, data sheets, installation guides, and other information.

NOTE: Catalogs and other non-brochure items have SP numbers, not SB.



SP-013 KMC Authorized *Distributor*
Door/Window Decal (9 x 6 inches)



SP-066 KMC Authorized *Representative*
Truck Decal (22 x 12 inches)



SP-045 KMC Counter Mat
(24 x 18 inches, rubber back)



SP-012 KMC Banner
(6 x 2 feet)



Electronic Products





Actuator Accessories and Repair Parts

CME-1000 Series Rotary Cam Auxiliary Switches



The CME-1000 series switches are designed to start and stop auxiliary items such as electric heat or fans in terminal unit applications. Models are available with one or two SPDT switches and mount to certain KMC controller actuators, electric actuators or directly to damper shafts. Switches are actuated by independently adjustable cams allowing for a trip point anywhere within the angular rotation of the driving actuator. Field application to existing actuators is easy with a snap-on feature. For field mounting to damper shafts, order required kit HMO-4509.

Mounts on any MEP-1500/5000 series actuator, any CEP/CSP series controller/actuator, or any TSP series sensor/actuator

Specifications

Switch Action	SPDT
Switch Ratings	15 Amp; 1/2 hp @ 125/250 VAC 1/2 Amp @ 125 VDC 1/4 Amp @ 250 VDC
Adjustment Range	120° per cam
Material	Black Polycarbonate
Regulatory	Switches are UL Recognized
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Models

CME-1001	Single SPDT switch: 45 to 60° actuators
CME-1002	Single SPDT switch: 100° actuators
CME-1003	Dual SPDT switches: 45 to 60° actuators
CME-1004	Dual SPDT switches: 100° actuators

Accessories

HMO-4509	Kit to mount CME-1000 series and CME-2001/2002 onto extended damper shafts. (See under CME-2001/2002 below.)
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CME-2001/2002 Rotary Feedback Potentiometers



The CME-2001/2002 rotary feedback potentiometers indicate the angular position of VAV terminal dampers and AHU dampers. Models are available in two ranges and mount to certain controller actuators, electric actuators or directly to damper shafts.

Potentiometers are gear driven from the CEP or MEP output drive or by the AHU damper shaft. Field installation to existing actuators is easy with a snap-on feature. For field mounting to damper shafts, order required kit HMO-4509.

These units are intended for use with the CEP-4000 series, CSP-4000 series, and MEP-1500 series controllers/actuators.

Specifications

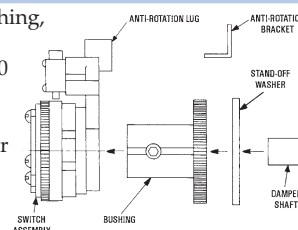
Power Rating	1 Watt
Linearity	±1%
Material	Black Polycarbonate
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Models

CME-2001	10 K ohm (7500 Ω change through 90° rotation)
CME-2002	1 K ohm (750 Ω change through 90° rotation)

Accessories

HMO-4509	Kit (bracket, bushing, and washer) to mount CME-1000 series and CME-2001/2002 onto extended damper shafts. (Will not work with the CME-2003.)
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CME-2003

Rotary Feedback Potentiometer (MEP-5000)



The CME-2003 rotary feedback potentiometer indicates the angular position of VAV terminal dampers and AHU dampers.

Specifications

Power Rating	1/3 watt
Resistance	10K ohm

The MEP-5065 comes with a factory-installed CME-2003. The CME-2003 field-mounts on the following (tri-state, non-fail-safe) actuators ONLY:

- MEP-5061
- MEP-5063
- MEP-5071
- MEP-5073
- MEP-5223
- MEP-5233

CME-2003s are **NOT** for the MEP-5062/5072/5372/5373/5374 or any other actuators.

CME-7001/7002

Auxiliary Switches



The CME-7000 series switches are designed to start and stop auxiliary items such as electric heat or fans in terminal unit applications. Models are available with single or double switches and mount to KMC Controls MEP-7000 series actuators. Switches are independently adjustable for a trip point anywhere within the angular rotation of the driving actuator.

Specifications

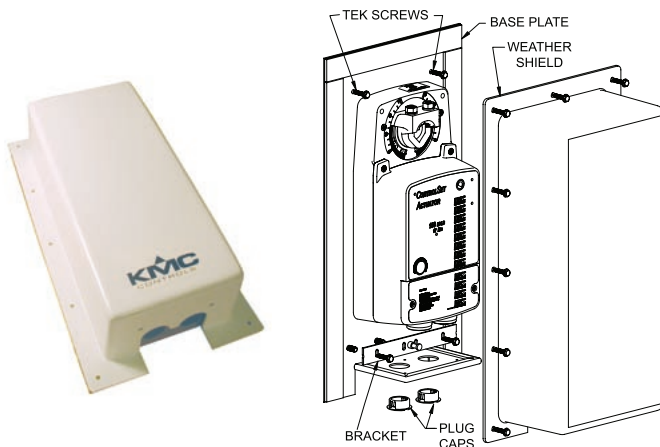
Switch Rating	12 A @ 250 VAC 1/3 hp @ 250 VAC 1/4 hp @ 125 VAC
Switching Point	Fully adjustable over 0–90° actuator rotation
Electrical Connection	3 ft. 18 gauge cable
Temperature Limits	
Operating	–5 to 120° F (–21 to 49° C)
Shipping	–40 to 140° F (–40 to 60° C)
Material	Black flame-retardant plastic

Models

CME-7001	Single auxiliary switch, 1 SPDT
CME-7002	Double auxiliary switch, 2 SPDT

HCO-1151/1152

Weather Enclosures



HCO-1152 (with installed actuator shown in installation view)

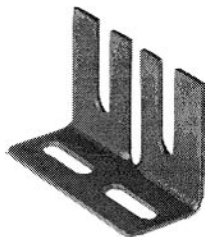
The HCO-1151/1152 enclosures, consisting of a metal mounting plate, plastic cover, non-rotation bracket, plug caps, and screws, are designed to shield actuators from inclement weather.

Models

HCO-1151	12-7/16 x 7 x 3-1/4" NEMA 3R enclosures (for MEP-4000/4800, MEP-425, and MEP-5000 series actuators)
HCO-1152	15-3/8 x 8-1/4 x 4-1/16" NEMA 3R enclosures (for MEP-1200, MEP-455, and MEP-7000 series actuators)



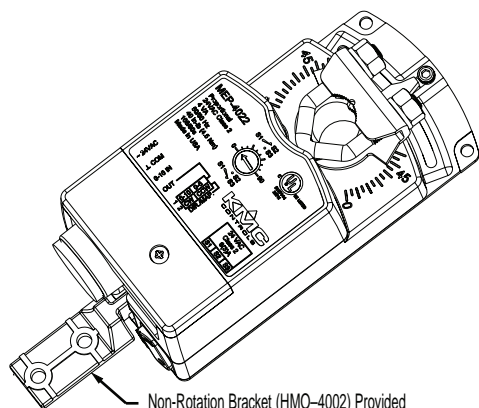
MEP Series Brackets



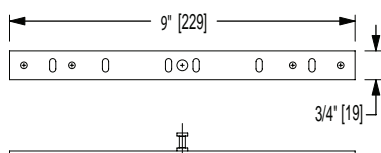
HMO-1003 Replacement non-rotation bracket for MEP-1500 and MEP-5000 series actuators



HMO-4531 Non-rotation bracket for any MEP-5000 series actuators (supplied with MEP-5223/5233)



Non-Rotation "T" Bracket (HMO-4001) Order Separately



HMO-4001 Non-rotation "T" bracket for MEP-4000/4800 series actuators

HMO-4002 Replacement non-rotation bracket for MEP-4000/4800 series actuators



HMO-4519 Replacement non-rotation bracket for MEP-1200 series actuators

HMO-4535 Replacement non-rotation bracket for MEP-7000 series actuators



HMO-4517 Front mounting bracket for MEP-1200 series actuators (for use when actuator must be mounted remote of the damper shaft)—includes hardware to mount bracket to actuator

MEP Series Connectors



HMO-4520 Compression connector for plenum cable for MEP-1200 and MEP-5000 series actuators



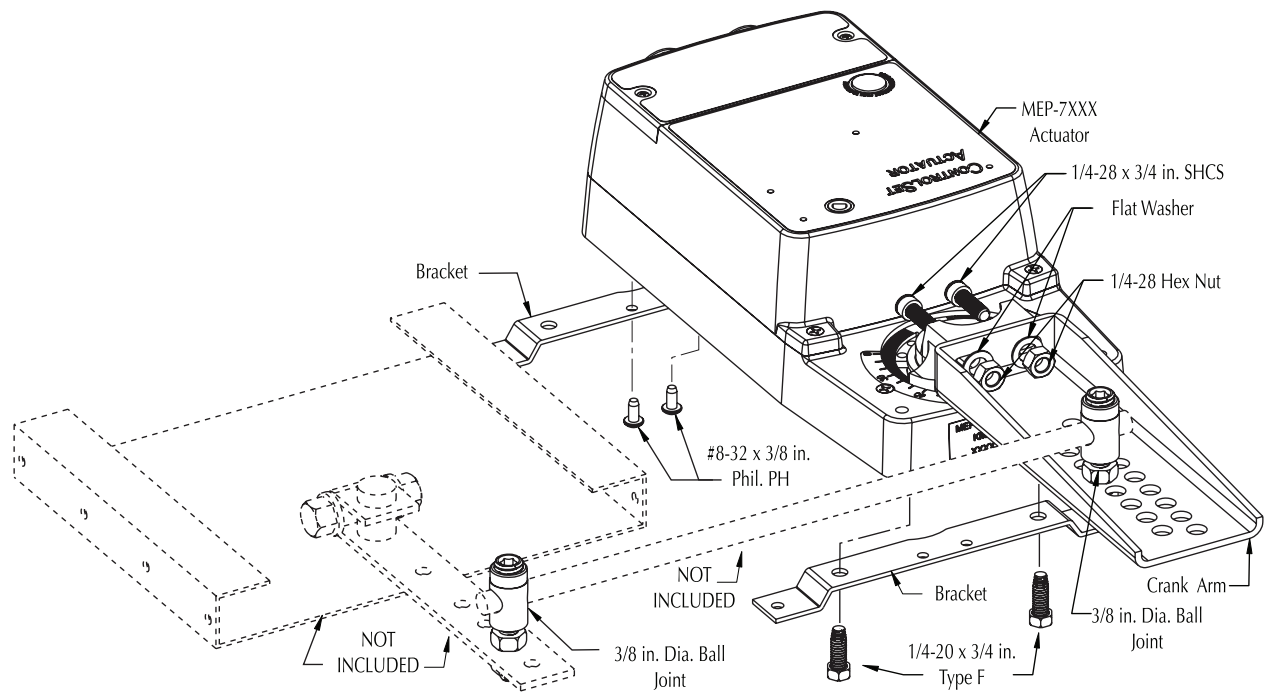
HMO-4526 Female connector for 1/2" conduit for MEP-1200 and MEP-5000 series actuators



HMO-4518 Snap-in connector for 1/2" flexible metal conduit for MEP-1200 and MEP-5000 series actuators

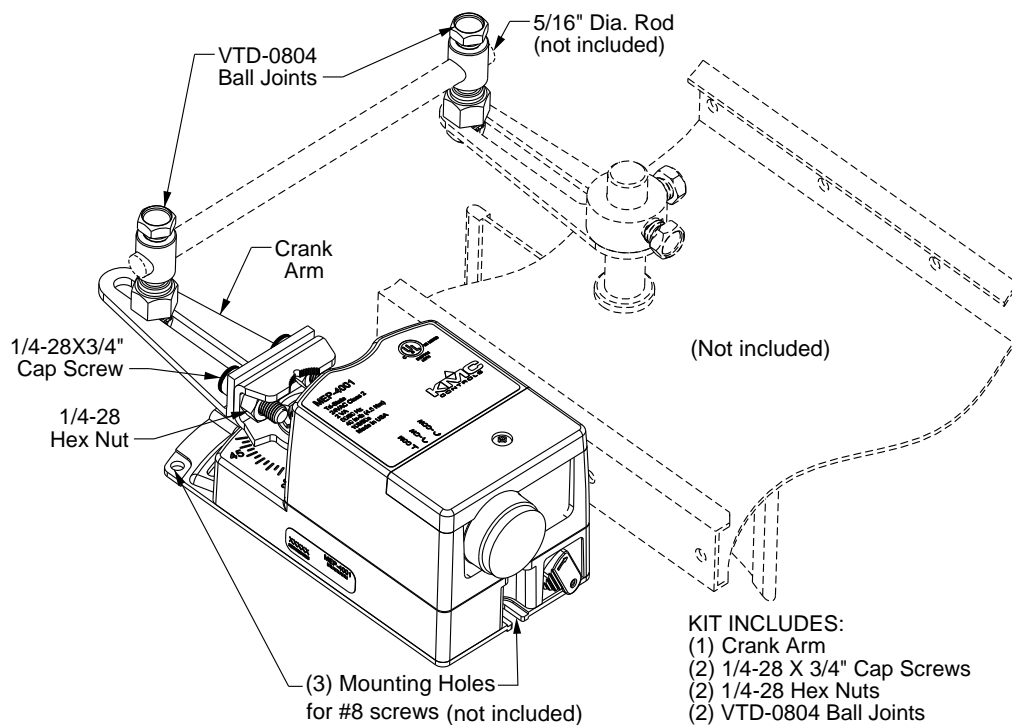


MEP Series Crank/Damper Arms and Linkage



HLO-1020

Linkage kit for MEP-7000 series.



HLO-4001

Linkage kit for MEP-4000 series



- VTD-1403 Slotted crank/damper arm, short for 3/8" shafts
- VTD-1404 Slotted crank/damper arm, short for 1/2" shafts
- VTD-1405 Slotted crank/damper arm, long for 1/2" shafts
- VTD-1406 Slotted crank/damper arm, long for 3/8" shafts



- VTD-1414 Three-hole crank/damper arm for 3/8" shafts
- VTD-1415 Three-hole crank/damper arm for 1/2" shafts

NOTE: In the VTD-1403/1404 (short) arms, a ball joint can be adjusted from 3/4" (minimum) from the center of the shaft to 2-7/8" (maximum) from the center. In VTD-1405/1406 (long) arms, the maximum is 4-5/8".



- VTD-0803 Ball joint, 1/4-20 male x 5/16-24" female for use on end of actuator shafts



- VTD-0804 Ball joint, 1/4-20 male x 1/4-20" female for use with VTD-1400 series crank arms

MEP Series Miscellaneous Hardware



- HFO-0011 Reducer bushing, for allowing MEP-1500 or MEP-5000 series to be mounted on 3/8" diameter shafts.



- HPO-0062 Motor and clutch assembly for MEP-1500 and CEP/CSP-4000 series actuators.



- HMO-4528 Replacement "V" bolt and nuts for MEP-1200 and MEP-700x/705x/770x/775x series.



- HMO-4536 Adjustable stop kit for MEP-7000 series



- HTO-1001 Conduit wrench, 1/2 and 3/4" (simplifies the tightening of locknuts at conduit boxes and other similar applications)



Actuators

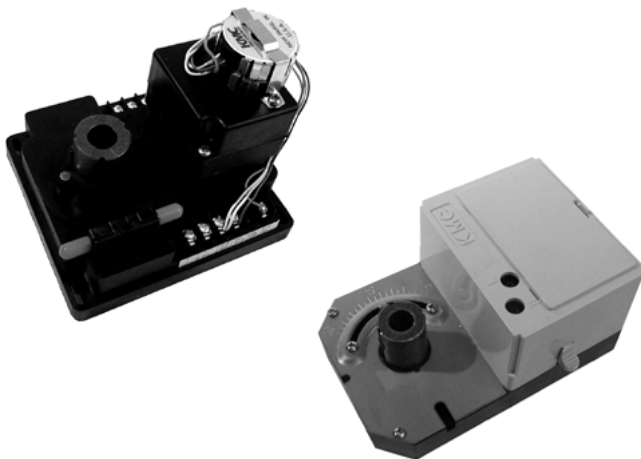
SEE ALSO: The interactive [Actuator Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

SEE ALSO: [Actuator \(MEP Series\) Selection Guides](#) and [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.

SEE ALSO: [\(Electronic\) Actuators Accessories](#) section.

SEE ALSO: [TSP-5000 Series](#) and [TSP-6001/6051](#) air-flow transducer-actuators in the [Transducers](#) section.

CEP-4000 Series, CSP-4000 Series, and CSP-5001/5002 VAV Controller-Actuators



SEE: [CEP-4000 Series](#), [CSP-4000 Series](#), and [CSP-5001/5002](#) controller actuators in the [\(Electronic\) Controllers and Switches](#) section.



MEP-1200 Series Cross-Reference

Obsolete Model Number	Torque (in-lb)	Control	Replacement Model Number	Torque (in-lb)	Control
MEP-1201/1261	135/100	Tri-State	MEP-7201	120	Tri-State
MEP-1202/1262	135/100	2–10 VDC or 4–20mA	MEP-7202	120	0–10 VDC or 4–20mA
MEP-1203/1263	135/100	Tri-State	MEP-7203	120	Tri-State
MEP-1221/1271	135/100	Tri-State	MEP-7251	120	Tri-State
MEP-1222/1272	135/100	2–10 VDC or 4–20mA	MEP-7252	120	0–10 VDC or 4–20mA
MEP-1223/1273	135/100	Tri-State	MEP-7253	120	Tri-State

MEP-1200 Series Accessories and Repair Parts

HCO-1152	15-3/8 x 8-1/4 x 4-1/16" weather enclosure
HMO-4517	Front mounting backplate
HMO-4518	Snap-in connector for 1/2" flexible metal conduit
HMO-4519	Replacement non-rotation bracket
HMO-4520	Compression connector for plenum cable
HMO-4526	Female connector for 1/2" conduit
HMO-4528	Replacement "V" bolt and nuts
VTD-0804	Ball joint
VTD-1404	Short crank arm
VTD-1405	Long crank arm

SEE ALSO: The [\(Electronic\) Actuators Accessories and Repair Parts](#) section.

SEE ALSO: [Actuator \(MEP Series\) Selection Guides](#) and [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.

SEE ALSO: The interactive [Actuator Selection Tool](#) in the [Products and Solutions](#) section of the [KMC web site](#).

MEP-1500 Series

Actuators with Magnetic Clutch (35 in-lbs., up to 360°)



The MEP-1500 series rotary electric actuators are designed to operate variable volume or other small dampers in HVAC systems. They provide 35 in-lbs. or greater torque in models with rotational ranges from 45 up to 360°.

To accommodate normal damper arrangements, the units are available in four different stroke options and can be shipped fully stroked to the clockwise or counterclockwise position. The internal magnetic clutch allows the units to be stalled at either end of stroke with no heat rise from the actuator.

An optional reducer bushing allows them to be used directly with 3/8" damper shafts. Switch assemblies or feedback pots may be field added to the actuator output bushing.

SEE ALSO: The [\(Electronic\) Actuators Accessories and Repair Parts](#) section.

SEE ALSO: [Actuator \(MEP Series\) Selection Guides](#) and [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.

SEE ALSO: The interactive [Actuator Selection Tool](#) in the [Products and Solutions](#) section of the [KMC web site](#).

Specifications

Supply Voltage	24 VAC, +20%/–15%
Input Power	2 VA
Torque	35 to 55 in-lbs. (4 to 6 N•m)
Angular Rotation	45°, 60°, 100°, and 360°
Stroke Time	18°/minute
Material	Glass-filled nylon
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: –40 to 140° F (–40 to 60° C)

Models

MEP-1501	100° shipped CW
MEP-1502	60° shipped CW
MEP-1503	45° shipped CW
MEP-1504	360°, no stops
MEP-1505	100° shipped CCW
MEP-1506	60° shipped CCW
MEP-1507	45° shipped CCW

Accessories and Repair Parts

CME-1000	Rotary cam switches
CME-2000	Rotary feedback potentiometers
HFO-0011	3/8" shaft adapter
HMO-1003	Replacement non-rotation bracket
HPO-0062	Motor and clutch assembly



MEP-4000/4800 Series

Direct-Coupled ControlSet® Actuators (40 or 80 in.-lbs.)



MEP-4002

MEP-4003 (Only)

The compact but powerful MEP-4000/4800 series direct-coupled actuators provide tri-state or proportional control for small dampers in HVAC systems. A minimum torque of 40 or 80 in.-lbs. is available over the 95° angular rotation.

The MEP-4002/4022/4802/4822 **proportional** actuator models accept a 0–10 volts DC control signal input from a thermostat, controller, or building automation system. A user-initiated, **auto-mapping feature** provides better equipment control by reassigning the 0–10 volts DC input signal range over a reduced rotation range (from 45 to 95°). These models also feature a switch-selectable, 0–5 or 0–10 volts DC **voltage feedback output** that is proportional to the actuator position.

The MEP-4001/4013/4021/4801/4813/4821 **tri-state** models are designed for use with **floating** thermostats, controllers, or building automation systems. The MEP-4013/4813 models feature a 10,000 ohm (+/– 10%), three-wire **potentiometer feedback output**. (Functionally like the MEP-4001, the **MEP-4003** does not have the larger green top enclosure.)

The MEP-4021/4022/4821 models also have a fully adjustable, built-in SPDT **auxiliary switch**, for remote position indication or controller and equipment interface.

All MEP-4000/4800s mount directly to 1/4- to 5/8-inch (6 to 16 mm) round shafts or 1/4- to 7/16-inch (6 to 11 mm) square shafts, eliminating the need for expensive and complicated linkages. A non-rotation bracket, to prevent lateral movement, is included with each actuator. A gear disengagement feature allows manual positioning of the actuator.

Accessories

HCO-1151	Weather enclosure
HLO-4001	Crank arm kit
HMO-4001	Non-rotation "T" bracket
HMO-4002	Non-rotation bracket (included)

SEE ALSO: [MEP-425 Series](#) and [MEP-455 Series](#).
 SEE ALSO: The [\(Electronic\) Actuators Accessories and Repair Parts](#) section.
 SEE ALSO: [Actuator \(MEP Series\) Selection Guides](#) and [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.
 SEE ALSO: The interactive [Actuator Selection Tool](#) in the [Products and Solutions](#) section of the [KMC web site](#).

Specifications

Supply Voltage	24 VAC, +20%/–15%
Supply Power	Tri-state, 2 VA Proportional, 4 VA
Control Signal	Tri-state, 24 VAC Proportional, 0 to 10 VDC
Feedback Output	Tri-state, 10K ohm ±10% Proportional, 0 to 5 VDC or 0 to 10 VDC (switch selectable)
Auxiliary Switch	Adjustable 0 to 95°, SPDT 6A resistive load (3A motor load) @ 24 VAC
Angular Rotation	0 to 95°; fully adjustable with mechanical stop
Motor Timing	90 seconds for 90° @ 60 Hz 108 seconds for 90° @ 50 Hz
Torque	(MEP-40xx) 40 in.-lbs. (4.5 N•m) (MEP-48xx) 80 in.-lbs. (9 N•m)
Mounting	Direct to 1/4 to 5/8 inches (6–16 mm) round or 1/4 to 7/16 inches (6–11 mm) square shaft by adjustable "V" bolt and non-rotational bracket HMO-4002 (supplied); minimum recommended damper shaft length is 1-5/8 inches
Connections	Wire clamp type; 14 to 22 AWG
Dimensions	5.3 x 2.6 x 2.5 inches (135 x 66 x 63.5 mm)
Weight	1.1 lb. (0.50 kg)
Enclosure	Flame-retardant plastic
Noise Level	< 35 dBA max. at 1 meter
Approvals	UL 873 Temperature Indicating and Regulating Equipment FCC Class B, Part 15, Subpart B
Humidity	5 to 95% RH (non-condensing)
Temperature Limits	Operating –22 to 131° F (–30 to 55° C) Shipping –40 to 176° F (–40 to 80° C)

Models

Model Number	Torque		Control		Built-in Options		
	40 in.-lbs. min. (4.5 N•m)	80 in.-lbs. min. (9 N•m)	Tri-state (Floating)	0 to 10 VDC Proportional	Feedback: 0–5 or 0–10 VDC	Feedback: 10k ohm Potentiometer	Auxiliary Switch (Adjustable, SPDT)
4001/4003	X		X				
4002	X			X	X		
4013	X		X			X	
4021	X		X				X
4022	X			X	X		X
4801		X	X				
4802		X		X	X		
4813		X	X			X	
4821		X	X				X
4822		X		X	X		X

MEP-425 Series

Fail-Safe, Spring-Return Actuators (62 in-lbs.)



These direct-coupled, spring-return actuators are designed to control small-sized dampers and valves requiring fail-safe operation. The MEP-425 series actuators mount to 1/4 to 3/4 inch diameter shafts or 1/4 to 1/2 inch square shafts. The actuators produce 62 inch-pounds of torque, running and spring return minimum, over a maximum 95° rotation. They come with removable pre-cabled wiring and integrated conduit adapter.

Models

MEP-425100	2-position, 24 VAC/VDC
MEP-425300	2-position, 120 VAC
MEP-425500	Tri-state, 24 VAC/VDC
MEP-425502	Tri-state, w/ dual auxiliary switches
MEP-425503	Tri-state, w/ feedback
MEP-425600	0-10 VDC
MEP-425602	0-10 VDC, w/ feedback and dual auxiliary switches

Specifications

Supply Voltage	24 V Units	VAC ±20% / VDC ±15%
	120 V Units	VAC ±10%
Current Input	24 V Units	5 VA (AC) / 3.5 W (DC)
	120 V Units	7 VA (AC) / 5 W (DC)
Control Input	2-position, 24 VAC/VDC	MEP-425100
	2-position, 120 VAC	MEP-425300
	Tri-state, 24 VAC/VDC	MEP-425500/425502/425503
	0 to 10 VDC	MEP-425600/425602
Feedback	1K ohm pot.	MEP-425503
	0 to 10 VDC	MEP-425600/425602
Torque		62 in-lbs. (7 N•m)
Angular Rotation		90° nominal (95° Max.)
Motor Timing		90 seconds
Spring Return Time		15 sec. typical
Connectors		Pre-cabled, 18 AWG, 3 foot (0.9 m)
Enclosure		Die cast aluminum alloy, NEMA 1
Temperature Limits	Operating	-25 to 130° F (-32 to 55° C)
	Shipping	-40 to 158° F (-40 to 70° C)
	Humidity	95% RH (non-condensing)
Agency Listing		UL60730 (replaces UL873) C-ULC22.2 No.24-93

Accessories

HCO-1151	12-7/16 x 7 x 3-1/4" weather enclosure
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MEP-455 Series

Fail-Safe, Spring-Return Actuators (142 in-lbs.)



These direct-coupled, spring-return actuators are designed to control dampers and valves requiring fail-safe operation. The MEP-455 series actuators mount to 3/8 to 1 inch diameter shafts or 1/4 to 3/4 inch square shafts. The actuators produce 142 inch-pounds of torque, running and spring return minimum, over a maximum 95° rotation. They come with removable pre-cabled wiring and integrated conduit adapter.

Models

MEP-455100	2-position, 24 VAC/DC
MEP-455300	2-position, 120 VAC
MEP-455500	Tri-state, 24 VAC/VDC
MEP-455600	0–10 VDC, w/ feedback
MEP-455602	0–10 VDC, w/ feedback and dual auxiliary switches

Specifications

Supply Voltage	
24 V Units	VAC \pm 20%, 50/60 Hz
120 V Units	VAC \pm 10, 50/60 Hz
Current Input	9 VA
Control Input	
2-position, 24 VAC/VDC	MEP-455100
2-position, 120 VAC	MEP-455300
Tri-state, 24 VAC/VDC	MEP-455500
0 to 10 VDC	MEP-455600/455602
Feedback	
1K ohm pot.	MEP-455500
0 to 10 VDC	MEP-455600/455602
Torque	142 in-lbs. (16 N•m)
Angular Rotation	90° nominal (95° Max.)
Motor Timing	90 seconds
Spring Return Time	15 sec. typical
Connectors	Pre-cabled, 18 AWG, 3 foot (0.9 m)
Enclosure	Die cast aluminum alloy, NEMA 1
Temperature Limits	
Operating	-25 to 130° F (-32 to 55° C)
Shipping	-40 to 140° F (-40 to 60° C)
Humidity	95% RH (non-condensing)
Agency Listing	UL873, C-ULC22.2 No. 24-93

Accessories

HCO-1152	15-3/8 x 8-1/4 x 4-1/16" weather enclosure
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MEP-5061/5071

Direct Coupled, Tri-State, ControlSet® Actuators (50 in-lbs.)



Specifications

Supply Voltage	24 VAC, +20%/–15%, Class 2
Control Input	Tri-state (see Supply Voltage)
Maximum Power	2 VA
Torque	50 in-lbs. (5.7 N•m) minimum
Angular Rotation	0 to 95°, stop adjustable, both ends
Motor Timing	
MEP-5061	18°/minute @ 60 Hz; 15°/minute @ 50 Hz
MEP-5071	60°/minute @ 60 Hz 50°/minute @ 50 Hz
Material	Flame retardant plastic
Approvals	UL 873 Temperature Indicating and Regulating Equipment
Environmental Limits	
Operating	0 to 120° F (–18 to 49° C)
Shipping	–40 to 140° F (–40 to 60° C)
Humidity	5 to 95% RH (non-condensing)

SEE ALSO: [MEP-5223/5233](#) and [MEP-5372/5373/5374](#).
 SEE ALSO: The [\(Electronic\) Actuators Accessories and Repair Parts](#) section.
 SEE ALSO: [Actuator \(MEP Series\) Selection Guides](#) and [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.
 SEE ALSO: The interactive [Actuator Selection Tool](#) in the [Products and Solutions](#) section of the [KMC web site](#).

These tri-state ControlSet Actuators are designed to control small dampers, such as air terminal unit dampers. The MEP-5061 is an 18°/minute actuator, and the MEP-5071 is a 60°/minute actuator. A minimum of 50 in-lbs. of torque over the maximum angular rotation of 95° is provided.

The actuator mounts to a 1/2-inch or 3/8-inch diameter damper shaft, eliminating the need for expensive and complicated linkages. When mounting to a 3/8-inch diameter shaft, the HFO-0011 shaft adapter is required and must be ordered separately.

These bidirectional motors may be controlled via an SPDT floating thermostat or building automation system. Both minimum and maximum end stops are standard to limit the rotation. A non-rotation bracket, to prevent lateral movement, is included with each actuator. A gear disengagement button allows manual positioning of the damper and/or gear train without energizing the actuator.

The actuators are protected against overloading. An optional feedback potentiometer and/or a (single or double) auxiliary switch can be field installed.

Models

MEP-5061	18°/minute actuator
MEP-5071	60°/minute actuator

Accessories

CME-1002	Single SPDT, rotary cam auxiliary switch
CME-1004	Dual SPDT, rotary cam auxiliary switch
CME-2003	Rotary feedback, three-wire pot. (10K ohm)
HFO-0011	3/8" shaft adapter
HMO-1003	Replacement non-rotation bracket
HCO-1151	12-7/16 x 7 x 3-1/4" weather enclosure

MEP-5000 Series Cross-Reference

Obsolete Model Number	Torque (in-lb)	Timing (sec/90°)	Control	Replacement Model Number	Torque (in-lb)	Timing (sec/90°)	Control
MEP-5001	50	300	Tri-State	MEP-5061	50	300	Tri-State
				MEP-4003	40	90	Tri-State
MEP-5021	50	90	Tri-State	MEP-5071	50	90	Tri-State
				MEP-4003	40	90	Tri-State
MEP-5002/5062	50	300	2–10 VDC	MEP-4002	40	90	0–10 VDC
MEP-5003/5063	50	300	Tri-State	MEP-4001	40	90	Tri-State
MEP-5005/5065	50	300	Tri-State	MEP-4013	40	90	Tri-State
MEP-5022/5072	50	90	2–10 VDC	MEP-4002	40	90	0–10 VDC
MEP-5023/5073	50	90	Tri-State	MEP-4001	40	90	Tri-State

**MEP-5223/5233****Direct-Coupled Replacement Damper Actuators for Residential Zone Dampers**

MEP-5223/5233s, with fast, 15-second closures/openings, are replacement damper actuators designed for residential dampers. The 24 VAC direct-coupled actuator provides smooth and quiet performance. These actuators are intended for replacement on series B and C style dampers only; not the A series dampers. The MEP-5223 is intended for replacement on round dampers with a fully closed blade angle of 45 degrees. The MEP-5233 is intended for replacement on rectangular dampers with a fully closed blade angle of 90 degrees.

Accessories

CME-1001	Single SPDT switch for MEP-5223
CME-1002	Single SPDT switch for MEP-5233
CME-1003	Dual SPDT switches for MEP-5223
CME-1004	Dual SPDT switches for MEP-5233
CME-2003	Rotary feedback potentiometer
HCO-1151	12-7/16 x 7 x 3-1/4" weather enclosure
HFO-0011	3/8" shaft adapter
HMO-1003	Replacement non-rotation bracket
HMO-4518	Snap-in connector for 1/2" flexible metal conduit
HMO-4520	Compression connector for plenum cable
HMO-4526	Female connector for 1/2" conduit

Specifications

Control Input	24 VAC, +20%/–15%, tri-state
Supply Power	2 VA maximum, tri-state
Motor Timing	
MEP-5223	15 seconds/60 Hz, 18 seconds/50 Hz
MEP-5233	15 seconds/60 Hz, 18 seconds/50 Hz
Angular Rotation	
MEP-5223	45 degrees
MEP-5233	90 degrees
Minimum Output Torque	
	10 in.-lbs. (1.1 N•m) running
Connections	Plated screw terminals for 14–22 AWG copper
Enclosure	Flame-retardant plastic
Weight	2 lbs. (0.9 kg)
Dimensions	6-7/64 H x 4 W x 3-3/16" D (155 x 102 x 81 mm)
Temperature Limits	
Operating	32 to 140° F (0 to 60° C)
Shipping	–40 to 150° F (–40 to 65° C)

Models

MEP-5223	15 second/ 45 degree; replaces: Carrier DAMPACT45DEG and 33CC500621, KMC MEP-5203-30
MEP-5233	15 second/ 90 degree; replaces: Carrier DAMPACT90DEG and 33CC500623, KMC MEP-5213-30, Johnson M9101-AGA-2N2

SEE ALSO: [\(Electronic\) Actuators Accessories](#) section.

MEP-5300 Series Cross-Reference

Obsolete Model Number	Replacement Model Number
MEP-5322	MEP-5372
MEP-5323	MEP-5373
MEP-5324	MEP-5374

SEE ALSO: The [\(Electronic\) Actuators Accessories and Repair Parts](#) section.

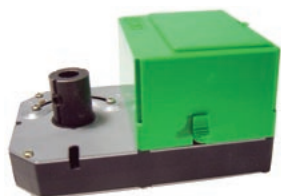
SEE ALSO: [Actuator \(MEP Series\) Selection Guides](#) and [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.

SEE ALSO: The interactive [Actuator Selection Tool](#) in the [Products and Solutions](#) section of the [KMC web site](#).



MEP-5372/5373/5374

Direct-Coupled, Fail-Safe ControlSet® Actuators (50 in-lbs.)



These ControlSet Actuators are designed to control small dampers such as air terminal unit dampers or specific VEP/VEG/VEP series valves. They mount directly to a 1/2" or 3/8" diameter damper shaft, eliminating the need for expensive and complicated linkage. When mounting to a 3/8" diameter shaft, the HFO-0011 shaft adapter is required and must be ordered separately. A minimum of 50 in-lbs. of torque over the maximum angular rotation of 95° is provided. Both minimum and maximum end stops are standard to limit the rotation. A gear disengagement feature allows positioning of the damper and/or gear train without energizing the actuator.

The bidirectional **tri-state** models may be controlled via an SPDT floating thermostat or building automation system. The MEP-5374 incorporates a 10K ohm feedback potentiometer for use if remote indication of actuator position is desired. An optional auxiliary switch can be field added.

In the MEP-5372 **proportional** model, a 1–5 VDC feedback voltage output is provided that is proportional to the control signal. This feedback can be used for remote indication of damper position. An 18 VDC auxiliary power supply output is also supplied for powering CTE-5100 series thermostats or other control devices in the system.

Models

MEP-5372	Proportional
MEP-5373	Tri-state without feedback potentiometer
MEP-5374	Tri-state with feedback potentiometer

SEE ALSO: The [\(Electronic\) Actuators Accessories and Repair Parts](#) section.

SEE ALSO: [Actuator \(MEP Series\) Selection Guides](#) and [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.

SEE ALSO: The interactive [Actuator Selection Tool](#) in the [Products and Solutions](#) section of the [KMC web site](#).

Specifications

Supply Voltage	24 VAC, +20%/–15% or 22–35 VDC
Supply Power	6 VA/19 VA peak inrush
Proportional Model	
Control Input	2 to 10 VDC
Feedback	1 to 5 VDC
Tri-State Models	
Control Input	(See Supply Voltage)
Feedback	10 K ohm, 1/3 watt potentiometer (MEP-5374 only)
Torque	50 in-lbs. (5.7 N•m) minimum
Angular Rotation	0 to 95°, stop adjustable, both ends
Motor Timing	45 to 60 seconds, load dependent for 95° rotation
Fail Safe	
Direction	Switch selectable
Charge Time Delay	One minute delay allows full charge before normal operation
Timing	35–50 seconds load dependent for 95° rotation
Material	Flame-retardant plastic
Approvals	UL Recognized
Temperature Limits	Operating: 0 to 120° F (–18 to 49° C) Shipping: –40 to 140° F (–40 to 60° C)

Accessories

CME-1002	Single SPDT, rotary cam auxiliary switch
CME-1004	Dual SPDT, rotary cam auxiliary switch
HCO-1151	12-7/16 x 7 x 3-1/4" weather enclosure
HFO-0011	3/8" shaft adapter
HMO-1003	Replacement non-rotation bracket
HMO-4518	Snap-in connector for 1/2" flexible metal conduit
HMO-4520	Compression connector for plenum cable
HMO-4526	Female connector for 1/2" conduit



MEP-7200/7500/7800 Series

Direct-Coupled, ControlSet® Actuators (120/180/320 in.-lbs.)



These powerful, efficient, durable, direct-coupled actuators provide tri-state or proportional control for large control air dampers or valves in HVAC systems. A minimum torque of 120, 180, or 320 in.-lbs. is available over the 94° angular rotation. **Capacitor-driven fail-safe models provide efficient operation with switch-selectable fail direction.**

The **proportional** actuator models accept a **0–10 VDC or 4–20 mA control signal** input from a thermostat, controller, or building automation system. “**Anti-jitter**” circuitry significantly reduces hunting and needless wear on the actuator and valve packing or damper components (from unnecessary miniscule position changes caused by undamped analog input signals). A user-initiated, **auto-mapping** feature provides better equipment control by reassigning the (0–10 VDC or 4–20 mA) input signal range over a reduced rotation range (from 45° to 94°). These models also feature a switch-selectable, **0–5 or 0–10 VDC voltage feedback** output that is proportional to the actuator position.

The **tri-state** models are designed for use with **floating** thermostats, controllers, or building automation systems. They feature a 10,000 ohm ($\pm 10\%$), three-wire **potentiometer feedback output**.

All actuators mount directly on 3/8" up to 1.05" round or 5/16" up to 5/8" square shafts, eliminating the need for expensive and complicated linkages. A non-rotation bracket, to prevent lateral movement, is included with each actuator. A gear disengagement button allows manual positioning of the damper and/or gear train without energizing the actuator. Removable terminals and 1/2" NPS conduit fittings make wiring easier. The actuators are protected against overloading and do not require end or limit switches.

Models

Model # MEP-	Torque			Control		Built-in Options		
	120 in-lbs. min. (13.5 N•m)	180 in-lbs. min. (20 N•m)	320 in-lbs. min. (36 N•m)	Tri-state (Floating)	0–10 VDC or 4–20 mA Proportional	Feedback: 10k ohm Potentiometer	Feedback: 0–5 or 0–10 VDC	Fail Safe (Switch Selectable Direction)
7x01	7200 series (x=2)	7500 series (x=5)	7800 series (x=8)	•				
7x02					•		•	
7x03				•		•		
7x51				•				•
7x52					•		•	•
7x53				•		•		•
MEP-7200 series (120 in-lbs.) replaces MEP-1200 series (100 in-lbs.) MEP-7500 series (180 in-lbs.) replaces MEP-7000 series (150 in-lbs.) MEP-7800 series (320 in-lbs.) replaces MEP-7700 series (300 in-lbs.)								

Specifications

Supply Voltage	24 VAC (+20%/–15%) Class 2, or 22–35 VDC
Supply Power	
MEP-720x/750x	6 VA
MEP-725x/755x	8 VA normal (25 VA peak while initializing)
MEP-780x	8 VA
MEP-785x	10 VA normal (40 VA peak while initializing)
Control Input	
Tri-state	(See Supply Voltage)
Proportional	0–10 VDC or 4–20 mA
Feedback	
Tri-state	10K ohm potentiometer (MEP-7xx3 models only)
Proportional	0–5 VDC or 0–10 VDC (switch selectable)
Angular Rotation	94°; fully adjustable with HMO-4536 stop kit
Motor Timing	(Powered)
MEP-72xx	75–90 seconds, load dependent
MEP-75xx/78xx	90–115 sec., load dependent
Fail-Safe Timing	(Switch-selectable clockwise, counter-clockwise, or off; up to 40 second delay while charging capacitor after initial connection to power)
MEP-725x	65–100 sec., load dependent
MEP-755x/785x	80–115 sec., load dependent
Torque	
MEP-72xx	120 in.-lb. (13.5 N•m)
MEP-75xx	180 in.-lb. (20 N•m)
MEP-78xx	320 in.-lb. (36 N•m)
Connections	Wire clamp type; 14–22 AWG, copper
Mounting	Direct mounting on 3/8" to 1.05" round or 5/16" to 5/8" square shaft by adjustable “V” bolt and non-rotational bracket HMO-4535 (supplied); minimum recommended damper shaft length is 2.5"
Dimensions	10-1/8 x 5 x 3 inches (257 x 127 x 76 mm)
Weight	MEP-7x0x: 5 lb. (2.3 kg); MEP-7x5x: 5.4 lb. (2.5 kg)
Enclosure	Flame-retardant polymer
Noise Level	< 45 dbA max. at 1 meter
Approvals	UL 873 Temperature Indicating and Regulating Equipment FCC Class B, Part 15, Subpart B

Environmental Limits

Operating	–22 to 131° F (–30 to 55° C)
Shipping	–40 to 176° F (–40 to 80° C)
Humidity	5 to 95% RH (non-condensing)

Accessories and Repair Parts

CME-7001	Rotary aux. cam switch, single
CME-7002	Rotary aux. cam switch, double
HCO-1152	Weather shield kit
HLO-1020	Crank arm kit
HMO-4535	Replacement non-rotation bracket
HMO-4536	Adjustable end stop kit

SEE ALSO: The [\(Electronic\) Actuators Accessories and Repair Parts](#) section.

SEE ALSO: [Actuator \(MEP Series\) Selection Guides](#) and [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.

SEE ALSO: The interactive [Actuator Selection Tool](#) in the [Products and Solutions](#) section of the [KMC web site](#).



MEP-7000/7700 Series Cross-Reference

Obsolete Model Number	Torque (in-lb)	Control	Replacement Model Number	Torque (in-lb)	Control
MEP-7001/7011	150	Tri-State	MEP-7501	180	Tri-State
MEP-7002/7012	150	2–10 VDC or 4–20mA	MEP-7502	180	0–10 VDC or 4–20mA
MEP-7003/7013	150	Tri-State	MEP-7503	180	Tri-State
MEP-7051/7061	150	Tri-State	MEP-7551	180	Tri-State
MEP-7052/7062	150	2–10 VDC or 4–20mA	MEP-7552	180	0–10 VDC or 4–20mA
MEP-7053/7063	150	Tri-State	MEP-7553	180	Tri-State
MEP-7701/7711	300	Tri-State	MEP-7801	320	Tri-State
MEP-7702/7712	300	2–10 VDC or 4–20mA	MEP-7802	320	0–10 VDC or 4–20mA
MEP-7703/7713	300	Tri-State	MEP-7803	320	Tri-State
MEP-7751/7761	300	Tri-State	MEP-7851	320	Tri-State
MEP-7752/7762	300	2–10 VDC or 4–20mA	MEP-7852	320	0–10 VDC or 4–20mA
MEP-7753/7763	300	Tri-State	MEP-7853	320	Tri-State

SEE ALSO: The [\(Electronic\) Actuators Accessories and Repair Parts](#) section.

SEE ALSO: [Actuator \(MEP Series\) Selection Guides](#) and [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.

SEE ALSO: The interactive [Actuator Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

TSP-5000/6000 Series

Air Flow Transducer-Actuator for VAV Systems



SEE: [TSP-5000 Series](#) and [TSP-6001/6051](#) air-flow transducer-actuators in the [Transducers](#) section.



Controllers and Switches

CEP/CSP Accessories

CME-1002/1004 Auxiliary cam switches—see *CME-1000 Series* in the *(Electronic) Actuators Accessories and Repair Parts* section for more information

CME-2001/2002 Rotary feedback potentiometers (see *CME-2001/2002* in the *(Electronic) Actuators Accessories and Repair Parts* section for more information)

HFO-0011 Reducer bushing to allow CEP/CSP controllers to drive 3/8" diameter shafts

HFO-0034 In-line 5 micron filter for use on "Hi" sensor connection of CSP-4000 series. Not required for CSP-5001/5002.

HMO-1003 Non-rotation bracket, 1 each furnished with each CEP/CSP. Can be ordered separately.

HMO-4518 Snap-in connector for 1/2" flexible metal conduit



HMO-4526 Female connector for 1/2" conduit



HMO-4520 Compression connector for plenum cable



HPO-0062 Replacement electric motor/gearbox for CEP/CSP-4000 (with date codes after 9225)



HSO-5001 Test leads



SSE-1000/2000 Air flow sensors—see the *SSE-1000/2000 Series* in the *(Electronic) Sensors and Transmitters* section for more information)



CEP-4000 Series

VAV Flow Controller-Actuator (Electronic Analog)



The CEP-4000 series is a pressure-independent combination controller-actuator designed primarily for use on variable air volume terminal units. Cooling and heating air flow is sensed by a **temperature-compensated hot-wire anemometer**. Velocity sensing is unaffected by changes in the duct air temperature.

The CEP-4000 series offers full-range flow control of VAV terminal units when used with the CTE-1000/1100/5000 series room thermostats. Air-velocity flow control limits are set at the room thermostat or remotely with the REE-1012 remote-limits accessory module. The actuator section provides a magnetic clutch that allows the actuator to be stalled at either end of stroke, eliminating the requirement for mechanical stops or end switches. The controller-actuator is available with (100°, 60°, and 45°) built-in stops or (360°) no stops.

Accessories

Thermostats/Controllers

CEE-1100 series	Thermostats, remote
CTE-1000 series	Thermostats
CTE-1100 series	Thermostats
CTE-5000 series	Thermostats
REE-1012	Relay module, min. and max. limit

Feedback and Auxiliary Switches

CME-1000	Rotary cam auxiliary switches
CME-2001	10K ohm potentiometer
CME-2002	1K ohm potentiometer

Mounting Adapter

HFO-0011	For 3/8" shaft
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Standard Air Flow Sensors

SSE-1001/1002	4"/8" insertion
SSE-2001/2002	4"/8" insertion, with thermistor

Conformal Coated Air Flow Sensors

SSE-1011/1012	4"/8" insertion
SSE-2011/2012	4"/8" insertion, with thermistor

NOTE: For operation principles, model history and replacement issues, adjustment/calibration/troubleshooting procedures, and sample applications, see the CEP-4000 Series VAV Flow Controller-Actuators Applications Guide. It is available for download from the CEP-4000 page on the KMC Controls web site.

Specifications

Operating Voltage	24 VAC, -15%/+20%, 50/60 Hz
Input Power	9 VA
Output Supply	9.1 VDC (22 mA)
Output Torque	45 ±10 in.-lbs. (5 ±1 N•m)
Velocity Range	0–3000 fpm (15.24 m/s)
Velocity Dead Band	±50 fpm
Velocity Output	1–5 VDC (0–3000 fpm)
Reset Voltage	3–6 VDC (0–3000 fpm)
Angular Rotation	45°, 60°, 100°, 360°
Stroke Time	18° per minute
Mounting	Direct to 1/2" (13 mm) diameter shaft or 3/8" (10 mm) diameter with HFO-0011 adapter
Material	Glass-filled nylon
Weight	1.75 lb. (0.79 kg)
Connections	Plated screw terminals
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Models

CEP-4 X Y Z

1	SSE-1001 sensor
2	SSE-1002 sensor
3	SSE-2001 sensor
4	SSE-2002 sensor
5	No sensor
0	CCW to close*
1	CW to close
6	CW to close—special ±100 fpm deadband
0	100° rotation
2	60° rotation
4	45° rotation
6	360° rotation

***NOTE:** The default rotation direction can easily be reversed by swapping the red and blue motor wires.

When replacing an older model, the CEP-4995 (100° rotation, CW to close, no sensor) is a "universal replacement" for most applications and will replace **MOST** CEP-1000/3000/4000 series controllers. If replacing a CEP-1000 or CEP-3000 series controller, the REE-1000 series relay may also need to be replaced with the equivalent REE-4000 series module. See the CEP-4000 Applications Guide for more information.

SEE ALSO: The [CEP/CSP Accessories](#) section, [\(Electronic\) Actuators Accessories and Repair Parts](#) section, the [\(Electronic\) Relays](#) section, and the [\(Electronic\) Thermostat](#) section.



CSE-1102/1103

Differential Pressure Switches



The KMC CSE-1102/1103 Differential Pressure Switches are used to remotely sense low pressure or differentials of pressure.

Typical applications include sensing fan or blower operation in ducted ventilation systems, sensing pressure drop across filters, and sensing frost build-up on coils. The SPDT switch allows remote status or alarm indication or operation of electrical circuits to other control devices.

Model CSE-1102 (shown) has barbed tubing connections, while the CSE-1103 is furnished with compression connectors for use with copper tubing. Both models are UL Recognized and CSA Approved.

Models

CSE-1102	Differential Pressure Switch with barbed connections
CSE-1103	Differential Pressure Switch with compression connections

Specifications

Setpoint Range	0.05" \pm 0.02 wc to 12" \pm 0.01" wc, adjustable (0.012 kPa \pm 0.005 kPa to 3 kPa \pm 0.02 kPa)
Differential	0.02" wc (0.005 kPa) rising to 0.8" wc (0.02 kPa) @ highest setting
Max Pressure	0.5 psi (3.4 kPa)
Electrical Ratings	
Inductive	1/4 hp @ 125 VAC, 1/2 hp @ 250 VAC, 0.50 amp @ 125 VDC, 0.25 amp @ 250 VDC
Pilot Duty	300 VA @ 115 to 277 VAC
Resistive	15 amps @ 125 to 277 VAC
Approvals	UL Recognized, File MH6213 CSA Approved, File LR18754
Temperature Limits	Operating: -40 to 180° F (-40 to 82° C) Shipping: -40 to 180° F (-40 to 82° C)

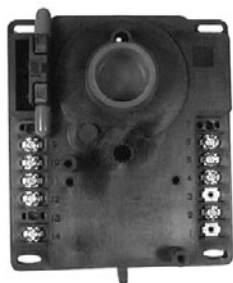
Accessories

HFO-0015	4" (102 mm) long sensing tube
HFO-0016	6" (152 mm) long sensing tube



CSE-4840 Series

VAV Flow Controller w/o Actuator (Electronic Analog)



These controllers have the control function of the CSP-4000 Series VAV Flow Controller-Actuators but **without the attached actuators**. See the CSP-4000 Series section for more information.

Models

CSE-4846	0-2" wc velocity range (1-6 VDC)
CSE-4847	0-2" wc velocity range (0-5 VDC)
CSE-4848	0-1" wc velocity range (1-6 VDC)



CSP-4000 Series

VAV Flow Controller-Actuator (Electronic Analog)



The KMC CSP-4000 VAV Flow Controller-Actuator are pressure-independent combination controller-actuators designed primarily for use on variable air volume terminal units. They use a multi-point or single-point **differential (velocity) pressure measuring station or pitot tube** for sensing airflow. Designed with a passive mass airflow sensor utilizing two Wheatstone bridges, each measures dynamic differential pressure which corresponds linearly to reset.

These units afford full range flow control of VAV terminal units when used with the CTE-1000/1100 or CTE-5000 series room thermostats. Minimum and maximum flow control limits are set at the wall thermostat. Available control options include proportional or on/off wet or electric reheat, dual minimum, fan induction, dual duct, and computer interface. The internal magnetic clutch assures that excessive torque will not be applied to the gear train.

Models

CSP-4 X Y Z	
X	6: 0-2" wc Velocity Range 8: 0-1" wc Velocity Range
Y	0: CCW to Close 1: CW to Close
Z	0: 100° Rotation 2: 60° Rotation 4: 45° Rotation 6: 360° Rotation

SEE ALSO: The [CEP/CSP Accessories](#) section, the [\(Electronic\) Actuators Accessories and Repair Parts](#) section, the [\(Electronic\) Relays](#) section, and the [\(Electronic\) Thermostat](#) section.

Specifications

Supply Voltage	24 VAC -15%/+20%
Input Power	3 VA
Output Supply	9.1 VDC (22 mA)
Output Torque	45 ±10 in.-lbs. (5 ±1 Nm)
Velocity Range	1" wc (249 Pa) or 2" wc (498 Pa)
Angular Rotation	45°, 60°, 100°, or 360°
Stroke Time	18° per minute
Control Action	PI
Proportional Band	0.012" (1" range) 0.024" (2" range)
Integral Time	23.5 seconds
Mounting	Direct to 1/2" (13 mm) diameter shaft or 3/8" (10 mm diameter with adapter
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Accessories and Repair Parts

Thermostats/Controllers

CEE-1100 series	Thermostats, remote
CTE-1000 series	Thermostats
CTE-1100 series	Thermostats
CTE-5000 series	Thermostats

Feedback and Auxiliary Switches

CME-1000 series	Rotary cam auxiliary switches
CME-2001	10K ohm potentiometer
CME-2002	1K ohm potentiometer

Standard Air Flow Sensors

SSS-1002	Airflow sensor, 1 sensing point, 3-5/32" length (80 mm)
SSS-1003	Airflow sensor, 2 sensing points, 5-13/32" length (137 mm)
SSS-1004	Airflow sensor, 3 sensing points, 7-21/32" length (195 mm)
SSS-1005	Airflow sensor, 4 sensing points, 9-29/32" length (252 mm)

Other Accessories

HFO-0034	In-line 5 micron filter for use on "Hi" sensor connection
HFO-0011	Adapter for 3/8" shaft
HPO-0062	Replacement electric motor/gearbox (for date codes after 9225)
HSO-5001	Test leads



CSP-5001/5002

VAV Flow Controller-Actuator (Electronic Analog)



The electronic analog KMC CSP-5001/5002 VAV Flow Controller-Actuators are pressure-independent combination controller-actuators, designed primarily for use on variable-air-volume terminal units. Airflow is sensed by using a single or multi-point differential (velocity) pressure measuring station or pitot tube (such as an SSS-1000 series airflow sensor). Designed with an onboard flow-through sensor using twin platinum resistance temperature detectors, these models are capable of controlling a velocity setpoint from 0 to 3,300 fpm with an accuracy of 3%.

The CSP-5001/5002 offers full-range flow control of VAV terminal units when used with the CTE-5100 series room thermostats. Air velocity flow control limits may be set at the thermostat or internal to the CSP-5001/5002. The actuator section provides adjustable stops, magnetic clutch, and a gear disengagement button. Internal status LEDs indicate green for opening and red for closing.

Available control options include proportional or two position wet or electric reheat, changeover, dual minimums, fan induction, dual duct, and automation interface.

Models

CSP-5001	CCW to close
CSP-5002	CW to close
(Factory-set rotation direction on both can be reversed by changing the position of a jumper.)	

Specifications

Supply Voltage	24 VAC -15/+20%, 50/60 Hz
Input Power	4 VA
Output Supply	16 VDC (22 mA)
Output Torque	50 in-lbs. min., 70 in-lbs. max. (5.6 N•m min., 7.9 N•m max.)
Velocity Range	0 to 3300 fpm (16.76 m/s), dependent on DP pickup, tubing size/length, and connections
Velocity Output	0 to 10 VDC (0 to 100% flow)
Angular Rotation	0 to 95°, both end stops adjustable
Stroke Time	18° per minute @ 60 Hz 15° per minute @ 50 Hz
Reset Voltage	0 to 10 VDC
Reset Limits	Adjustable, 0 to 100%
Mounting	Direct to 1/2" (13 mm) diameter shaft or 3/8" (10 mm diameter with adapter)
Connections	Wire clamp type, 14 to 22 AWG
Material	Flame-retardant polymer, UL94-5V plenum-rated, black housing with white cover
Weight	2.4 lbs. (1 kg.)
Temperature Limits	Operating: 32 to 120° F (0 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Accessories

CME-1002	Single SPDT auxiliary cam switch
CME-1004	Dual SPDT auxiliary cam switch
CME-2001	Rotary feedback pot., 10 kΩ (7.5 kΩ at 90°)
CME-2002	Rotary feedback pot., 1 kΩ (750 Ω at 90°)
CTE-5100 series	Room temperature thermostats
HFO-0011	Adapter for 3/8" shaft
HMO-4518	Snap-in connector for 1/2" flexible metal conduit
HMO-4520	Compression connector for plenum cable
HMO-4526	Female connector for 1/2" conduit
HSO-5001	Test leads
SSS-1000 series	Airflow sensors

NOTE: For operation principles, calibration/troubleshooting procedures, and sample applications, see the CSP-5001/5002 Series VAV Flow Controller-Actuators Applications Guide. It is available for download from the CSP-5001/5002 page on the KMC Controls web site.

SEE ALSO: The [CEP/CSP Accessories](#) section, the [\(Electronic\) Actuators Accessories and Repair Parts](#) section, the [\(Electronic\) Relays](#) section, and the [\(Electronic\) Thermostat](#) section.



CTE-3006/3007 Low Limit Controller



The KMC CTE-3006/3007 Low Limit Controllers are designed for use on HVAC equipment requiring low-temperature control and/or indication.

Available in both manual or automatic reset versions, the units are responsive to the lowest temperature sensed along any 1-foot span of the 20-foot-long element. Setpoint indication is visible through the front cover and adjustments are made from the top. Both models have a manual test lever.

The CTE-3006 is an automatic reset version and will automatically reset when the sensed temperature rises 5° above setpoint. The CTE-3007 is a manual reset and cannot be reset until the sensed temperature is at least 5° above setpoint.

Specifications

Range	35 to 68° F (1.7 to 20° C)
Differential	4.5° F fixed (2.5° C)
Switch Action	SPDT, 1–4 opens on fall, 1–2 closes on fall
Element	20-foot (610 cm) tin-plated copper capillary, maximum temperature 300° F (149° C)
Electrical Ratings	
Inductive	24 FLA @ 120 VAC, 240 VAC 144 LRA @ 120 VAC, 240 VAC 2 hp @ 120 VAC, 3 hp @ 240 VAC
Pilot Duty	720 VA max @ 120–600 VAC 144 VA, max @ 24 VAC
Temperature Limits	Operating: –60 to 160° F (–51 to 71° C) Shipping: –60 to 160° F (–51 to 71° C)

Models

CTE-3006	Automatic reset
CTE-3007	Manual reset

Accessories

HMO-4523	Capillary clip for CTE-3006/3007/3017
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CTE-3017 Low Limit Controller, DPDT



The KMC CTE-3017 Low Level Controller is a DPDT device designed for use on HVAC equipment requiring low-temperature control and/or indication in duct work or on heating/cooling coils.

On a decrease in sensed temperature, the unit will actuate at its setpoint and will not reset until the reset button is pushed. A reset cannot be accomplished until the sensed temperature is at least 5° above the setpoint. A test lever, located under the cover, allows the unit to be manually actuated to facilitate system checkout.

In order to be used in stratified airstreams, the unit will respond to the lowest temperature sensed in any one foot section of the sensing element.

To facilitate installation of the 20-foot capillary, five HMO-4523 capillary mounting clips are shipped with each model.

Specifications

Range	34 to 70° F (1.1 to 21° C)
Differential	4.5° F fixed (2.5° C)
Switch Action	DPDT
Element	20 foot (610 cm) tin-plated copper capillary, maximum temperature 300° F (149° C)
Electrical Ratings	
Inductive	14 FLA @ 120 VAC 12 FLA @ 240 VAC 84 LRA @ 120 VAC 72 LRA @ 240 VAC 3/4 hp @ 120 VAC 2 hp @ 240 VAC
Pilot Duty	720 VA max @ 120–600 VAC 144 VA, max @ 24 VAC
Approvals	UL, CSA
Ambient Limits	Operating: –60 to 160° F (–51 to 71° C) Shipping: –60 to 160° F (–51 to 71° C)

Accessories

HMO-4523	Capillary clip for CTE-3006/3007/3017
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**CTE-6001****Manual Reset High Limit Control****Specifications**

Switch Action	SPST
Element Length	1-1/2" (191 mm)
Adjustment Range	100 to 250° F (38 to 121° C)
Electrical Ratings	9.8 FLA @ 115 VAC
	58.8 LRA @ 115 VAC
	4.9 FLA @ 230 VAC
	29.4 LRA @ 230 VAC
	2,000 VA maximum connected
Approval Listing	UL
Temperature Limits	Operating: 40 to 120° F (4 to 49° C)
	Shipping: -40 to 140° F (-40 to 60° C)

The KMC CTE-6001 is a push-button Manual Reset limit control. It is designed for installation in supply air ducts to shut down heating/air conditioning equipment or ventilating fans when the duct air temperature exceeds a preset limit.

The "cut-out" temperature setpoint is field adjustable in a range of 100° F to 250° F (38° C to 121° C). Once set, the temperature setpoint can be "locked in place" by tightening the screw in the setpoint lever.

This device is shipped with the "cut-out" temperature preset at 135° F (57° C). It can be manually reset without removing the cover. The helix bimetal sensing element is protected from damage by a rigid outer shield. The insertion length is 7-1/2" (191 mm).

SSE-1000/2000 Series Duct Sensors for VAV Systems

SEE: [SSE-1000/2000 Series](#) in the [Sensors and Transmitters](#) section.

SSS-1000 Series Differential Pressure Flow Sensors for VAV Systems

SEE: [SSS-1000 Series](#) in the [Sensors and Transmitters](#) section.

TSP-5000/6000 Series Air Flow Transducer-Actuator for VAV Systems

SEE: [TSP-5000 Series](#) and [TSP-6001/6051](#) air-flow transducer-actuators in the [Transducers](#) section.



Enclosures

Enclosure Accessories



HCO-1020A Replacement lock and keys, fits all “current” and most “old” lockable panels. Mounts with large hex nut.



HPO-1315 KMC Label, 4" L x 8" W, durable, polycarbonate material

HCO-1008/1009 Relay/Transducer Enclosures



HCO-1008



HCO-1009

Models

HCO-1008	Holds 1 or 2 REE-3100 series relays, 3.125 W x 5 H x 2.5" D
HCO-1009	Holds up to 8 relays, 9.5 W x 5 H x 2.5" D

HCO-1037 Steel Control Panel Enclosure Cross-Reference

Use HCO-1034 instead.

Accessories and Repair Parts

HCO-1020A	Replacement lock and keys
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HCO-1034/1035/1036

Steel Control Panel Enclosures



These enclosures provide a convenient method of surface mounting and protecting pneumatic and electrical devices. The cabinet is easily mounted on the wall, while the subpanel with the control devices, may be added later.

Cabinet doors can open to the right or left. If more than one enclosure is necessary, they are easily mounted next to each other and/or joined by removing the required knockouts which are on all four sides. Fastened with appropriate fittings and locknuts, these enclosures provide a neat, flexible installation.

Specifications

Mounting	Keyhole/surface
Approvals	UL Listed/NEMA 1
Weight	

HCO-1034: 23 lbs. (10 kg)
HCO-1035: 36 lbs. (16 kg)
HCO-1036: 75 lbs. (34 kg)

Materials

Cabinet: 16 gauge steel (HCO-1034 14 gauge)
Subpanel: 18 gauge perforated steel, 1/8" (3 mm) holes on 1" (51 mm) centers

Finish

Textured dark blue PMS 288

Knockouts

Provided on all 4 sides

Door

Welded piano hinge, key operated latch, tamper-resistant outputs

Models

HCO-1034	16 W x 18 H x 6" D (406 x 457 x 152 mm)
HCO-1035	20 W x 24 H x 6" D (508 x 610 x 152 mm)
HCO-1036	24 W x 36 H x 6" D (610 x 914 x 152 mm)

Accessories

HCO-1020A	Replacement lock and keys
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HCO-1101

Control Panel Enclosure



This economical enclosure made of flame retardant plastic can contain a variety of different control devices. It is 10-1/2" long x 4-3/4" wide x 3-1/8" deep. Base incorporates 3-1/4" snap track. Cover includes communications port door. Can hold three XEC-300x transducers (gauges cannot be used with XEC-300x).

NOTE: The HCO-1101 consists of the HCO-1121 and the HCO-1120 assembled together.

Accessories



HCO-1121: Enclosure cover

HCO-1120: Enclosure base

HCO-1102

Controller Enclosure



HCO-1102 (shown with a KMD-7401 controller mounted inside)



The HCO-1102 is a two-part enclosure that features:

- Made of 18-gauge (base) and 22-gauge (cover) steel
- Black electrocoated finish
- 10.1 W x 2.4 H x 7.1" D (257 x 62 x 181 mm)
- Cover snaps onto base and is secured by a single screw
- Screw bosses provided for mounting one of any of the KMD-5801/5802 controllers, KMD-7300/7400 series controllers, BAC-5801/5802 controllers, BAC-7300/7400 series controllers, or KMD-5540 series CommTalk protocol interfaces
- Optional HMO-1102 perforated sub-panel mounts on screw bosses and allows other devices (with different mounting holes) to be installed in the enclosure

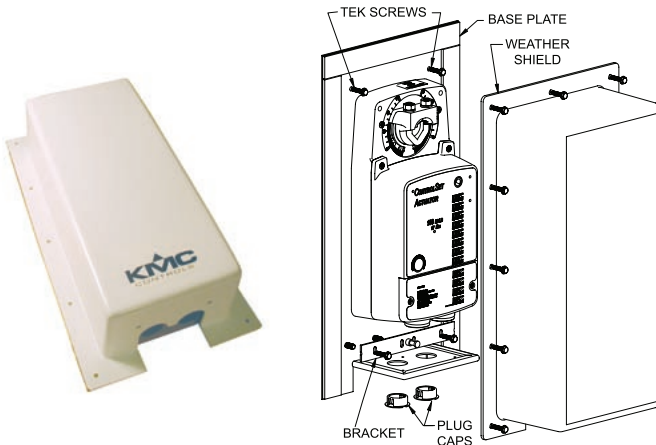
Accessories

HMO-1102	5-7/8 x 7" perforated sub-panel, 18-gauge steel, black electrocoated finish
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HCO-1151/1152 Weather Enclosures



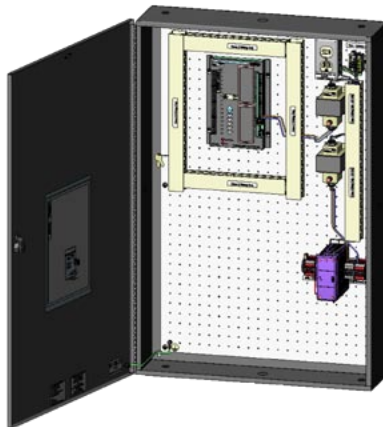
HCO-1152 (with installed actuator shown in installation view)

The HCO-1151/1152 enclosures, consisting of a metal mounting plate, plastic cover, non-rotation bracket, plug caps, and screws, are designed to protect actuators from inclement weather.

Models

- HCO-1151: 12-7/16 x 7 x 3-1/4" NEMA 3R enclosures (for MEP-4000/4800, MEP-425, and MEP-5000 series actuators)
- HCO-1152: 15-3/8 x 8-1/4 x 4-1/16" NEMA 3R enclosures (for MEP-1200, MEP-455, and MEP-7000 series actuators)

HCO-2424/2436 Series Enclosures/Assemblies



HCO-2436-4 Shown (Controller Not Included)

These control enclosures provide a convenient method of surface mounting and protecting control devices. The cabinet is easily mounted on the wall, while the sub-panel contains spaced holes for easy mounting of controllers. The enclosure is designed for such KMC controllers (purchased separately) as the KMD/BAC-5801/5802, KMD/BAC-5831, and BAC-A1616BC.

If more than one enclosure is necessary, they are easily mounted next to each other and/or joined by removing the required knockouts which are on all four sides. Fastened with appropriate fittings and locknuts, these enclosures provide a neat, flexible installation.

Options include two different heights and different combinations of included transformers, power supply, switched receptacle, wire ducts, terminal blocks, and other accessories.

Accessories and Repair Parts

- HCO-1020A Replacement lock and keys
XEE-6112-075 Replacement transformer

Models

Model #	Dimensions (inches)	Interior Electrical Options*		
		24 VDC Power Supply	24 VAC Transformers	Terminal Blocks
HCO-2424	24 x 24 x 6 (61 x 61 x 15 cm)			
HCO-2424-1			1	1
HCO-2424-2			2	2
HCO-2424-3		1	1	2
HCO-2424-4		1	2	3
HCO-2436	24 x 36 x 6 (61 x 91 x 15 cm)			
HCO-2436-1			1	1
HCO-2436-2			2	2
HCO-2436-3		1	1	2
HCO-2436-4		1	2	3

*HCO-24xx-x models with interior electrical options have an accessories package installed that includes a switched receptacle, 1-1/2 inch wire duct, and a spare parts kit (two replacement fuse bulbs, five replacement 2-pin jumpers, and six 249 ohm resistors). (The resistors can be used for converting a 4-20 mA input into a voltage that KMC controllers can read.) Controllers are **not** included.

Specifications

Approvals	NEMA 1
	UL Listed Enclosed Industrial Control Panel (UL 508A)
Materials	Gray, 14 gauge steel
	White, 16 gauge perforated steel with 1/8" (3 mm) holes on 1" (51 mm) centers
Door	Tamper resistant, with welded piano hinge and key-operated latch
Mounting	Keyhole/surface
Knockouts	Provided on all four sides



Power Supplies and Transformers

XEE-4002/5002 Power Supplies



The KMC XEE-4002 and XEE-5002 power supplies are designed to provide the CTE-1000/1100/5000 and CTE-5100 room thermostats with the appropriate supply voltage from a 24 VAC power source. VAV applications use the appropriate CEP/CSP VAV controller to provide the thermostat power supply. These power supplies allow these thermostats to be used in non-VAV applications.

Specifications

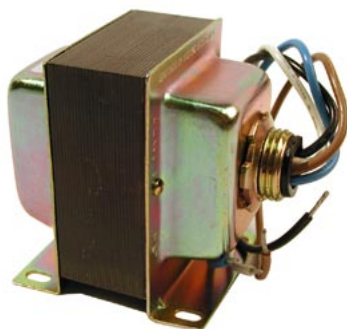
Supply Voltage	24 VAC @ 1 VA, +20/-15%
Output Voltage	XEE-4002: 9.1 VDC @ 22 mA, $\pm 5\%$ XEE-5002: 16 VDC @ 25 mA, $\pm 5\%$
Temperature Limits	Operating: 0 to 120° F (-18 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Models

XEE-4002	9.1 VDC for CTE-1000/1100/5000 series thermostats
XEE-5002	16 VDC for CTE-5100 series thermostats



XEE-6000 Series Transformers



XEE-6000 series transformers (single hub shown above) can be mounted using either the mounting base pad or the threaded hub(s). Models are available to provide power for UL Listed or UL Recognized applications. All XEE-6100 series transformers 75 VA and higher and all XEE-6300 series multi-tap transformers have a manual reset circuit breaker on the secondary output.

Specifications

Secondary Voltage	24 VAC
Configuration	Split bobbin design, steel end bells
Wiring	18 AWG leads, 7.5 to 9.5" (191 to 241 mm) long, stripped and tinned
Weight	2.4 to 5.3 lbs. (1.09 to 2.4 kg)
*UL Certification	R C 2 = UL Recognized Class 2 L C 2 = UL Listed Class 2 UUKL** = Approved for use in smoke control systems REC*** = UL Recognized (<i>not for use with Class 2 devices</i>)

Models

Model Selection Guide								
24 VAC Secondaries—all circuits are non-supervised and all secondaries (except for XEE-6111-150) are power limited								
Model #	Primary Voltage	Power Rating	Circuit Breaker	Threaded Hub	UL*	Dimensions (w/o hubs) (inches/millimeters)	Mounting Hole Dimensions	
XEE-6111-040	120 VAC 60 Hz	40 VA	None	Single	R C 2	2.7 W x 2.9 H x 2.2" D (68.6 x 73.7 x 55.9 mm)	2.0 W x 1.8" D (50.8 x 45.7 mm)	
XEE-6112-040				Dual	L C 2			
XEE-6111-050		50 VA		Single	R C 2	2.8 W x 2.9 H x 2.2" D (71.1x 73.7 x 55.9 mm)	2.0 W x 1.8" D (50.8 x 45.7 mm)	
XEE-6112-050				Dual	L C 2			
XEE-6211-050	Single			R C 2	2.8 W x 2.9 H x 2.2" D (71.1x 73.7 x 55.9 mm)	2.0 W x 1.8" D (50.8 x 45.7 mm)		
XEE-6212-050	Dual			L C 2				
XEE-6311-050	120/240/ 277/480 VAC 50/60 Hz			Included	Dual	L C 2	3.5 W x 3.1 H x 2.5" D (88.9 x 78.7 x 63.5 mm)	1.9 W x 2.0" D (48.3 x 50.8 mm)
XEE-6111-075	120 VAC 60 Hz				Single	R C 2	3.9 W x 3.1 H x 2.5" D (99.1 x 78.7 x 63.5 mm)	2.3 W x 2.0" D (58.4 x 50.8 mm)
XEE-6112-075		Dual	L C 2		3.9 W x 3.1 H x 2.5" D (99.1 x 78.7 x 63.5 mm)	2.3 W x 2.0" D (58.4 x 50.8 mm)		
XEE-6311-075	120/208/ 240/480 VAC 50/60 Hz	Single	R C 2		3.9 W x 3.0 H x 2.5" D (99.1 x 76.2 x 63.5 mm)	2.3 W x 2.0" D (58.4 x 50.8 mm)		
XEE-6111-100	120 VAC 60 Hz	Single	R C 2		4.1 W x 3.1 H x 2.5" D (104.1 x 78.7 x 63.5 mm)	2.5 W x 2.0" D (63.5 x 50.8 mm)		
XEE-6112-100**		Dual	L C 2 UUKL**					
XEE-6311-100	120/240/ 277/480 VAC 50/60 Hz	96 VA	Dual		L C 2	4.3 W x 3.1 H x 2.5" D (109.2 x 78.7 x 63.5 mm)	2.6 W x 2.0" D (66.1 x 50.8 mm)	
XEE-6111-150***	120 VAC 60 Hz		150 VA		Single	REC***	3.5 W x 3.3 H x 3.8" D (88.9 x 83.8 x 96.5 mm)	2.5 W x 3.2" D (63.5 x 81.3 mm)



Relays

SEE ALSO: The [\(Electronic\) Controllers and Switches](#) section and the [Transducers](#) section.

REE-1004 Relay Module Constant Volume w/ Override

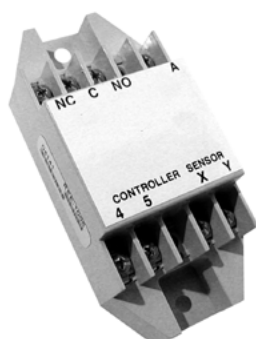


The KMC REE-1004 Relay Module is designed for constant volume control of VAV terminal units in HVAC systems. Used in conjunction with specific CEP/CSP series of controller-actuators, it is capable of controlling a terminal at a constant setting, but has the ability to drive it fully open or closed with a contact closure. Since the desired air flow setting is made at the relay module, no room thermostat is required.

Specifications

Supply Voltage	9.1 to 18 VDC (2 mA)
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

REE-1005 Relay Module Heat/Cool Changeover



The KMC REE-1005 Relay Module is designed primarily for automatic heating /cooling changeover applications on single duct VAV terminal units in HVAC systems.

Used in conjunction with the SSE-2000 series sensors, they have the ability to change the action of the VAV terminal to either heating or cooling based on the temperature of the supply air to the VAV terminal.

Specifications

Supply Voltage	9.1 to 18 VDC (2 to 4 mA)
Setpoint	77° F \pm 4° F (25° C \pm 2° C)
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)



REE-1012

Relay Module with Min. and Max. Limit



The KMC REE-1012 relay modules are designed for use with the CTE series room thermostats. They provide the capability for setting minimum and maximum limits remote from the thermostat.

When used with the CTE thermostat in a VAV system, the REE-1012 maintains the minimum and maximum cfm setpoints to the CEP/CSP series flow controller.

Specifications

Supply Voltage	9.1 to 18 VDC (2 to 4 mA)
Material	Flame retardant plastic
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

REE-1016/1022

Computer Interface Relay Modules



KMC Computer Interface Relay Modules are designed for interfacing an energy management system signal to reset specific CEP/CSP series controller-actuators on VAV terminal units in HVAC systems. Various inputs are converted to an output signal, which is linear over the adjusted "LO" and "HI" air velocity limit setpoints. The low adjustment may be set at 0 and the high at 6 VDC to allow the flow limits to be set directly by a building automation system.

Specifications

Supply Voltage	9.1 VDC (3 mA) $\pm 5\%$
Input Signal	See Models list
Output	0 to 6 VDC, adjustable, linear
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Models

REE-1016	4 to 20 mA input
REE-1022	2 to 10 VDC input



REE-2004 Solid State Relay



REE-2004 solid-state relays are rugged, single-phase devices with ratings of 25 amps. They are optically isolated with 4000 V_{RMS} isolation. They accept a DC logic control input and provide precise zero-crossing on-off control in a panel mounted package.

Rugged internal snubber circuitry attenuates most industrial noise. The high dv/dt and "blocking voltage" provide excellent immunity to voltage spikes. A new, fast-responding input circuit allows the REE-2004 to survive high-energy, non-repetitive power-line surges and continue normal operation.

Relay status can be seen via the built-in LED status indicator under the clear plastic safety cover. The clear safety cover includes test probe holes.

A current-limited DC input (4 to 32 VDC) allows a wider selection of control devices and simplifies integration with PLCs and other externally powered circuits.

The REE-2004 relay provides an effective replacement for electromechanical contactors. An excellent application for this relay is switching electric resistance heating elements. The fast switching reduces the thermal cycling of the heating elements resulting in longer element life. In addition, the elimination of mechanical contacts reduces both maintenance costs and downtime.

Models

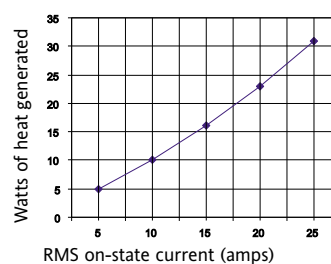
REE-2004-10	(Obsolete, use REE-2004-25)
REE-2004-25	25 amperes _{RMS} *

*With proper heat sinking. No heat sink is required for loads up to 4 amperes. **Loads greater than 4 amperes require a heat sink (HPO-4611) and thermal pad (HPO-4612).**

Specifications

Max. Recommended Resistive Heater Loads		
@ 120 VAC	@ 240 VAC	@ 480 VAC
2400 W	4800 W	9600 W
Max. Recommended Single Phase Motor Control		
@ 120 VAC	@ 240 VAC	@ 480 VAC
1/3 hp	1 hp	2 hp

REE-2004-25 Derating Curve



Output Voltage Rating Output Over Voltage Control Input

24 VAC to 330 VAC
800 V peak
Min. Turn-on: 4 V @ 5.4 mA
Max. Turn-on: 32 V @ 10 MA
Max. Turn-off: 1 VDC
Impedance: 1500 ohms

Input Reverse Voltage Protection Connections

-75 VDC
Screw terminals for 12 to 22 AWG copper inputs/outputs

Temperature Limits

Operating: 32 to 104° F (0 to 40° C)
Shipping: -40 to 140° F (-40 to 60° C)
2 oz. (57 grams)

Weight

Accessories

HPO-4611	Heat sink
HPO-4612	Thermal pad

SEE ALSO: [REE-2002 E-E/I Converter and Power Supply](#) and [REE-2005 Voltage to Current Converter](#) in the [\(Electronic\) Transducers](#) section.



REE-2101/2102

Solid State Relays



The KMC REE-2101/2102 Solid State Relays provide zero-crossing triac switching for use in building automation systems or any system where transients may pose a problem.

The REE-2101 relay provides four separate outputs while the REE-2102 provides a single output. A status LED is associated with the output of each relay to indicate when the output is switched on. An Auto-Manual-Off jumper is provided so the output may be overridden.

Specifications

Output Rating	12 VAC min. to 30 VAC max, 20 mA min. to 1 A max.
Control Input Power	10–14 VDC, 18–30 mA
Auxiliary Power*	
REE-2101	10–14 VDC, 72–120 mA
REE-2102	10–14 VDC, 18–30 mA
	* Auxiliary Power is only required to enable manual-override functions
Temperature Limits	Operating: 0 to 120° F (–18 to 49° C) Shipping: –40 to 140° F (–40 to 60° C)

Models

REE-2101	Four triac output with zero-crossing switching
REE-2102	Single triac output with zero-crossing switching

REE-2103/2104

Solid State Relays



These solid-state relays provide zero-crossing triac switching (optically isolated with 4000 V_{RMS} isolation) for use in Energy Management Systems, and where transients may pose a problem.

The KMC REE-2103 has four separate outputs, while the 2104 has one. Each output has an associated red LED for indicating the output is switched on. An Auto-Manual-Off jumper is provided to override the output.

Specifications

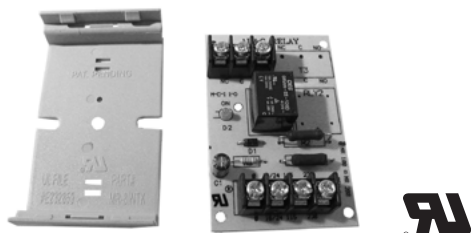
Output Rating	(47 to 63 Hz @ 25° C)													
	<table><tr><th>Parameter</th><th>Min.</th><th>Max.</th></tr><tr><td>Load Voltage</td><td>24 VAC</td><td>280 VAC</td></tr><tr><td>Load Current</td><td>0.05 A</td><td>5 A</td></tr><tr><td>Horsepower Rating (@ 240 VAC)</td><td></td><td>1/2 hp</td></tr></table>	Parameter	Min.	Max.	Load Voltage	24 VAC	280 VAC	Load Current	0.05 A	5 A	Horsepower Rating (@ 240 VAC)		1/2 hp	
Parameter	Min.	Max.												
Load Voltage	24 VAC	280 VAC												
Load Current	0.05 A	5 A												
Horsepower Rating (@ 240 VAC)		1/2 hp												
Control Input Power	24 VDC, 1.6 VA max. 6 to 40 VDC, 4 to 56 mA													
Auxiliary Power*														
REE-2103	24 VAC, 6.4 VA max. or 6 to 40 VDC, 16 to 224 mA													
REE-2104	24 VAC, 1.6 VA max. or 6 to 40 VDC, 4 to 56 mA													
	*Auxiliary Power is only required to enable manual-override functions													
Connections	Input/Output: Screw terminals for 18 to 22 AWG copper Auxiliary Power: Screw Terminals for 18 to 22 AWG copper or 2.5 mm female connector													
Mounting	Provided with 3.25" (83 mm) snap-track; not position sensitive (2.75" wide for 2103, 1.875" wide for 2104)													
Temperature Limits	Operating: 0 to 120° F (–18 to 49° C) Shipping: –40 to 140° F (–40 to 60° C)													

Models

REE-2103	Four triac output with zero-crossing switching
REE-2104	One triac output with zero-crossing switching



REE-3100 Series Multi-Voltage Relays



The KMC REE-3100 series relays are ideal for applications where local or remote contacts are required for system status, control of electrical loads and general all-purpose switching. They are suitable for use in systems such as HVAC, temperature control, fire, security, lighting control, etc.

These devices offer SPDT or DPDT 10 amps contacts which may be operated by one of four input control voltages. A single relay may be energized from a voltage source of 24 VDC/VAC, 115 VAC, or 230 VAC by wiring to the appropriate input terminals.

Each relay module is associated with a red light emitting diode (LED) to indicate the relay coil is energized. Standard 4-module relay assemblies may be snapped apart for independent use.

Accessories

HCO-1008	Holds 1 or 2 relays, 3.125 W x 5 H x 2.5" D
HCO-1009	Holds up to 8 relays, 9.5 W x 5 H x 2.5" D

Specifications

Power Requirements

SPDT Relay 0.015 amps @ 24 VAC/VDC;
115 VAC; 230 VAC

DPDT Relay 0.035 amps @ 24 VAC/VDC;
115 VAC; 230 VAC

Contact Rating

Approvals

UL recognized

Operating Limits

-58 to 185° F (-50 to 85° C)

Models

REE-3101	Single SPDT relay with LED and track mounting hardware
REE-3102	Single SPDT relay with LED mounted in enclosure
REE-3103	Four SPDT relays with LEDs and track mounting hardware
REE-3104	Four SPDT relays with LEDs mounted in enclosure
REE-3105	Single DPDT relay with LED and track mounting hardware
REE-3106	Single DPDT relay with LED mounted in enclosure
REE-3107	Four DPDT relays with LEDs and track mounting hardware
REE-3108	Four DPDT relays with LEDs mounted in enclosure

REE-3110 Series 12/24 VDC Multi-Voltage Relays



The KMC REE-3110 Series are ideal for applications where local or remote contacts are required for system status, control of electrical loads and general all-purpose switching. Suitable for use in systems such as HVAC, temperature control, fire, security, lighting control, etc.

These devices offer SPDT 10 amps contacts which may be operated by one of two input control voltages. A single relay may be energized from a voltage source of 12 VDC or 24 VDC by wiring to appropriate input terminals.

Each relay module has a red LED to indicate the relay coil is energized. Standard 4 or 8-module relay assemblies may be snapped apart for independent use.

Specifications

Contact Rating

10 amps @ 115 VAC

Power Requirements

SPDT Relay 0.017 amps @ 12/24 VDC

Approvals

UL Recognized

Operating Limits

-58 to 185° F (-50 to 85° C)

Models

REE-3111	Single SPDT relay with LED and standoffs
REE-3112	Single SPDT relay with LED and track mounting hardware
REE-3113	Four SPDT relays with LED and standoffs
REE-3114	Four SPDT relays with LED and track mounting hardware
REE-3115	Eight SPDT relays with LED and standoffs
REE-3116	Eight SPDT relays with LED and track mounting hardware

Accessories

HCO-1008	Holds 1 or 2 relays, 3.125 W x 5 H x 2.5" D
HCO-1009	Holds up to 8 relays, 9.5 W x 5 H x 2.5" D



REE-3211/3212/3213/3221 Encased Multi-Voltage Relays



The KMC REE-3200 Series UL Listed relays are packaged in a small protective case for panel or conduit mounting.

The multi-voltage relay coils and relay contact outputs have color-coded wires for simplified installation.

Specifications

Coil Inputs

REE-3211/3221	10 to 30 VAC/VDC and 120 VAC
REE-3212	24 to 30 VAC/VDC and 120 VAC
REE-3213	10 to 30 VAC/VDC and 208-277 VAC

Contact Ratings

Resistive	10 A @ 277 VAC/ 28 VDC
Pilot Duty	480 VA @ 240/277 VAC
Ballast	480 VA @ 277 VAC
Tungsten	600 W (NO) @ 120 VAC 240 W (NC) @ 120 VAC
Horsepower	1/3 (NO) @ 120/240 VAC 1/4 (NO) @ 277 VAC 1/6 (NC) @ 120/240 VAC 1/8 (NC) @ 277 VAC

Models

REE-3211/3212/3213	SPDT
REE-3221	2-SPDT

REE-3214/3222 Encased Multi-Voltage Relays With Override Switch



KMC REE-3214/3222 Multi-Voltage Relays are UL Listed relays packaged in a small protective case that can be either panel or conduit mounted. The multi-voltage relay coils and relay contact outputs have color-coded wires for simplified installation. The relays also have visible LEDs that indicate when the relays are energized.

The REE-3214 has a true manual override Hand-Off-Auto switch, and the REE-3222 has a true manual override Hand-Off-Auto switch on relay #1. Both models have built-in transient protection.

Specifications

Coil Inputs	10 to 30 VAC/VDC and 120 VAC
Contact Ratings	10 A Resistive, 125/250 VAC

Models

REE-3214	SPST (NO) w/override
REE-3222	1-SPST (NO) w/override, 1-SPDT

REE-3231 Encased DPDT Relay



The KMC REE-3231 UL listed relay is packaged in a small protective case that can be either panel or conduit mounted.

The relay coil and relay contact outputs have color-coded wires for simplified installation. The relay also has a visible LED that indicates when the relay is energized. Built-in transient protection is also provided.

Specifications

Coil Inputs	24 VAC/VDC
Contact Output	DPDT
Coil Current	40 mA @ 20 VDC, 50 mA @ 24VDC, 65 mA @ 20 VAC, 75 mA @ 24 VAC

Contact Ratings

Resistive	13A @ 28 VDC, 20A @ 15 VDC, 20A @ 300 VAC
Pilot Duty	480 VA @ 240/277 VAC
Horsepower	1 hp @ 120 VAC 1.5 hp @ 208/240 VAC 1 hp @ 480/600 VAC

**REE-4001****Relay Module 3-Stage Reheat**

KMC REE-4001 relay modules are designed for use with VAV terminal units in HVAC systems. When used in conjunction with CTE series room thermostats, up to three stages of reheat may be controlled.

Each output circuit is capable of handling contactors of up to 10 VA @ 24 VAC. The three circuits are calibrated to actuate at equally spaced intervals across the thermostat's proportional band. By using the REE-4001, the heating requirements of a particular VAV terminal may be actuated in three separate steps affording more precise temperature control.

Specifications

Supply Voltage	24 VAC, +20%/-15% @ 1 VA plus output loads
Input Signal	0 to 6 VDC
Output Capacity	10 VA per stage @ 24 VAC
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

REE-4002**Relay Module Fan Box Control, 2-Stage Reheat**

The KMC REE-4002 relay module is designed for use with VAV fan powered induction boxes. When used in conjunction with a direct acting CTE series room thermostat, the unit mounted fan and two stages of reheat can be controlled.

Each output circuit is capable of handling contactors of up to 10 VA @ 24 VAC. The "FAN" output circuit may be adjusted to start the unit fan at an air flow setting of 0 to 3,000 fpm. The two reheat circuits are factory set to sequentially actuate after the fan starts if the room temperature continues to fall. Using the REE-4002 allows full adjustment of the unit fan starting point so that optimum use can be made of the warm air in the return air plenum before actuating reheat coils.

Specifications

Supply Voltage	24 VAC, +20%/-15% @ 1 VA plus output loads
Input Signal	0 to 6 VDC
Output Capacity	10 VA per stage @ 24 VAC
Fan Setpoint	3 VDC, adjustable 2-6 VDC
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

**REE-4006****Relay Module with Proportional Reheat for NC Valves**

The KMC REE-4006 relay module is designed primarily for time proportioning control of electrical hot water valves on VAV terminal units in HVAC systems. The percent on-time of the electric hot water valve will vary in direct relation to the CTE-1103/1004/1103 room thermostat signal. As the thermostat signal increases, the percent on-time of the water valve increases.

The REE-4006 must be used in conjunction with the VEP series 2-way and 3-way hot water valves. Up to three VEP valves may be powered from a single REE-4006. It is intended for use with the CEE/CSP/CSE/CSP-4000 series controllers/actuators.

Specifications

Supply Voltage	24 VAC, +20%/–15% @ 1 VA
Input Signal	0–6 VDC
Output Capacity	10 VA max. @ 24 VAC
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	–40 to 140° F (–40 to 60° C)

REE-4011/4015**Relay Module, Thermostat Output Scaling**

The KMC REE-4011/4015 scaling relay modules are designed for the proportional control of electric hot water valves or SCR controllers on VAV terminal units in HVAC systems.

These relays output a signal in direct proportion to the CTE series room thermostat signal. As the thermostat signal increases, the scaling relay output signal increases.

Specifications

Supply Voltage	24 VAC, +20%/–15%
Input Signal	0 to 6 VDC, 20 VDC maximum
Output Signal	
REE-4015	0 to 10 VDC @ 6 mA
REE-4011	0 to 20 VDC @ 25 mA
Temperature Limits	
Operating:	40 to 120° F (4 to 49° C)
Shipping:	–40 to 140° F (–40 to 60° C)

Models

REE-4011	0 to 20 VDC
REE-4015	0 to 10 VDC

REE-4017**Relay Module Fan and Proportional Reheat for NC Valves**

The KMC REE-4017 relay module is designed primarily for use with VAV fan powered induction boxes requiring proportional control of electric hot water valves in HVAC systems.

The “FAN” output circuit is capable of handling contactors up to 10 VA @ 24 VAC. This circuit may be adjusted to start the unit fan on a requirement for heat prior to the valve opening, or when the valve begins to open. The “VALVE” output circuit is time proportional providing 24 VAC output to a VEP series valve. This provides complete modulation of the valve over the proportional band of the CTE-1103/1004/1103 thermostat’s heating setpoint.

The REE-4017 allows full adjustment of the unit fan starting point so that optimum use can be made of the warm air in the return air plenum before opening the hot water valve. It is intended for use with the CEE/CSP/CSE/CSP-4000 series controllers/actuators.

Specifications

Supply Voltage	24 VAC @ 1 VA, +20%/–15% plus output loads
Input Signal	0–6 VDC
Output Capacity	10 VA per output @ 24 VAC
Fan Setpoint	0–3 VDC, adjustable
Temperature Limits	
Operating:	40 to 120° F (4 to 49° C)
Shipping:	–40 to 140° F (–40 to 60° C)

**REE-4019****Relay Module 3-Stage Refrigeration**

This relay module is designed primarily for use with VAV terminal units in HVAC systems. When used in conjunction with CTE-5003/5017 series room thermostats, up to three stages of refrigeration may be controlled by averaging multiple thermostats.

Each output circuit is capable of handling contactors of up to 10 VA @ 24 VAC. The three circuits are calibrated to actuate at equally spaced intervals across the thermostat's proportional band. By using the REE-4019, the refrigeration requirements of a roof top unit may be actuated in three separate steps affording more precise temperature control.

Specifications

Supply Voltage	24 VAC @ 1 VA, +20%/-15% plus output loads
Input Signal	0-6 VDC
Output Capacity	10 VA per stage @ 24 VAC
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

REE-4023**Relay Module Proportional Reheat for NO Valves**

The KMC REE-4023 relay module is designed for the proportional control of electric hot water valves on VAV terminal units in HVAC systems. The percent on-time of the electric hot water valve varies indirectly to the CTE series room thermostat signal. As the thermostat signal increases, the percent on-time of the electric hot water valve decreases, thereby opening the valve.

The REE-4023 must be used in conjunction with the VEP series 2-way and 3-way hot water valves. Up to three VEP valves may be powered from an individual REE-4023.

Specifications

Supply Voltage	24 VAC, +20%/-15% @ 1 VA
Input Signal	0 to 6 VDC
Output Capacity	10 VA max. @ 24 VAC
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

REE-4024**Relay Module, Fan, and Proportional Reheat for NO Valves**

The KMC REE-4024 relay is designed for use with fan powered induction units requiring proportional control of electric hot water valves on VAV terminal units in HVAC systems.

Adjustment of the unit fan starting point is allowed so that optimum use is made of the warm air in the return air plenum before opening the hot water valve.

The "FAN" output circuit is capable of handling contactors of up to 10 VA @ 24 VAC. It may be adjusted to start the unit fan on requirement for heat prior to the valve opening, or when the valve begins to open. The "VALVE" output circuit provides a 24 VAC output for time proportional control. Both "FAN" and "VALVE" are controlled by the CTE thermostat's heating setpoint.

The REE-4024 must be used in conjunction with the VEP series 2-way and 3-way hot water valves. Each relay may power up to three VEP valves. The REE-4024 is intended for use with the CEE/CEP/CSE/CSP-4000 series controllers/actuators and the CEE-1102/CTE-1004/CTE-1103 thermostats.

Specifications

Supply Voltage	24 VAC, +20%/-15% @ 1 VA plus output loads
Input Signal	0 to 6 VDC
Output Capacity	10 VA max. @ 24 VAC
Fan Setpoint	Adjustable, 0 to 3 VDC
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

**REE-4106****Relay Module, Proportional Reheat for NC Valves w/ Thermostat Supply**

The KMC REE-4106 relay module is designed primarily for the proportional control of electric hot water valves on VAV terminal units in HVAC systems.

The percent on-time of the electric hot water valve varies in direct proportion to the CTE series room thermostat signal. As the thermostat signal increases, the percent on-time of the electric hot water valve increases.

The REE-4106 must be used in conjunction with the VEP series 2-way and 3-way hot water valves. Up to three VEP valves may be powered from an individual REE-4106.

Each module contains a built-in 9.1 VDC power supply which can be used to power any CTE room thermostat (except CTE-5100 Series) when a VAV box flow controller is not used. The REE-4106 is intended for use with the CEE/CEP/CSE/CSP-4000 series controllers/actuators and the CEE-1102/CTE-1004/CTE-1103 thermostats.

Specifications

Supply Voltage	24 VAC, +20%/–15% @ 1 VA
Input Signal	0 to 6 VDC
Output Capacity	10 VA max. @ 24 VAC
Thermostat Power Supply	9.1 VDC, ±10%
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: –40 to 140° F (–40 to 60° C)

REE-4123**Relay Module, Proportional Reheat for NO Valves w/ Thermostat Power Supply**

The KMC REE-4123 relay module is designed for the proportional control of electric hot water valves on VAV terminal units in HVAC systems.

The percent on-time of the electric hot water valve varies in indirect proportion to a CTE-1000/1100/5000 series room thermostat signal. As the signal increases, the percent on-time of the electric hot water valve decreases.

The REE-4123 must be used in conjunction with the VEP series 2-way and 3-way hot water valves. Up to three VEP valves may be powered from an individual REE-4123.

Each module contains a built-in 9.1 VDC power supply which can be used to power any CTE-1000/1100/5000 series room thermostat when a CEP/CSP controller/actuator is not used. The REE-4123 is intended for use with the CEE-1102, CTE-1004, CTE-1103 thermostats.

Specifications

Supply Voltage	24 VAC, +20%/–15%
Input Signal	0 to 6 VDC
Output Capacity	10 VA max. @ 24 VAC
Thermostat Power Supply	9.1 VDC, ±10%
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: –40 to 140° F (–40 to 60° C)

**REE-5001****Relay Module 3-Stage Reheat**

KMC REE-5001 relay modules are designed primarily for use with VAV terminal units in HVAC systems. When used in conjunction with CTE-5100 series (particularly the CTE-5104) room thermostats, up to three stages of reheat may be controlled.

Each output circuit is capable of handling contactors of up to 10 VA @ 24 VAC. The three circuits are calibrated to actuate at equally spaced intervals across the thermostat's proportional band.

By using the REE-5001, the heating requirements of a particular VAV terminal may be actuated in three separate steps affording more precise temperature control.

Specifications

Supply Voltage	24 VAC, +20%/-15% @ 1 VA plus output loads
Input Signal	0 to 10 VDC
Output Capacity	10 VA per stage @ 24 VAC
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

REE-5002**Relay Module Fan with 2-Stage Reheat**

The REE-5002 reverse acting relay module is designed primarily for use with VAV fan powered induction boxes. When used in conjunction with a direct acting CTE-5100 series room thermostat, the unit mounted fan and two stages of reheat can be controlled.

Each output circuit is capable of handling contactors of up to 10 VA @ 24 VAC. The "FAN" output circuit may be adjusted to start the unit fan at an air flow setting of 0 to 3,000 fpm. The two reheat

circuits are factory set to sequentially actuate after the fan starts if the room temperature continues to fall.

Using the REE-5002 allows full adjustment of the unit fan starting point so that optimum use can be made of the warm air in the return air plenum before actuating reheat coils. The REE-5002 is intended for use with the CSP-5001 controller/actuator and the CTE-5101/5103/5105 thermostats.

Specifications

Supply Voltage	24 VAC, +20%/-15% @ 1 VA plus output loads
Input Signal	0 to 10 VDC
Output Capacity	10 VA per stage @ 24 VAC
Fan Setpoint	4.0 VDC, adjustable 3-8 VDC
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

REE-5017**Relay Module, Fan and Proportional Reheat for NC Valves**

The KMC REE-5017 relay module is designed primarily for use with VAV fan powered induction boxes requiring proportional control of electric hot water valves in HVAC systems.

The "FAN" output circuit is capable of handling contactors up to 10 VA @ 24 VAC. This circuit may be adjusted to start the unit fan on a requirement for heat prior to the valve opening, or when the valve begins to open. The "VALVE" output circuit is time proportional

providing 24 VAC output to a VEP series valve. This provides complete modulation of the valve over the proportional band of the CTE-5100 series thermostat's heating setpoint.

The REE-5017 allows full adjustment of the unit fan starting point so that optimum use can be made of the warm air in the return air plenum before opening the hot water valve. The REE-5017 is intended for use with the CSP-5001 controllers/actuators and the CTE-5104 thermostat. Associated valves (with MEP-3001 actuators) are the 2-way VEP-12/22 series and 3-way VEP-34/37 series.

Specifications

Supply Voltage	24 VAC @ 1 VA, -15/+20% plus output loads
Input Signal	0 to 10 VDC
Output Capacity	10 VA per output @ 24 VAC
Fan Setpoint	0 to 5 VDC, adjustable
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)



REE-5024

Relay Module, Fan and Proportional Reheat for NO Valves



The KMC REE-5024 relay module is designed primarily for use with fan powered induction units requiring proportional control of electric hot water valves on VAV terminal units in HVAC systems.

Adjustment of the unit fan starting point is allowed so that optimum use is made of the warm air in the return air plenum before opening the hot water valve.

The "FAN" output circuit is capable of handling contactors of up to 10 VA @ 24 VAC. It may be adjusted to start the unit fan on

requirement for heat prior to the valve opening, or when the valve begins to open. The "VALVE" output circuit provides a 24 VAC output for time proportional control. Both "FAN" and "VALVE" are controlled by the CTE-5100 thermostat's heating setpoint.

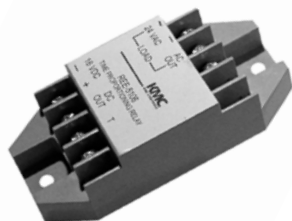
The REE-5024 must be used in conjunction with the VEP series 2-way and 3-way hot water valves. Each relay may power up to three VEP valves. The REE-5024 is intended for use with the CSP-5001 controller/actuator and the CTE-5104 thermostat.

Specifications

Supply Voltage	24 VAC, +20%/–15% @ 1 VA plus output loads
Input Signal	0 to 10 VDC
Output Capacity	10 VA per output @ 24 VAC
Fan Setpoint	0 to 5 VDC, adjustable
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: –40 to 140° F (–40 to 60° C)

REE-5106

Relay Module Proportional Reheat for NC Valves With Thermostat Power Supply



The KMC REE-5106 relay module is designed with an AC control signal output for time proportional control of VEP series valves using the PTC thermal element actuator and a DC control signal output for time proportional control of solid state relays typically used in VAV terminal unit reheat applications.

The percent on-time of the VEP series valves, or the solid state relay, varies in direct proportion to the CTE-5100 series room thermostat signal. Therefore, as the thermostat signal increases, the percent on-time of the valve, or solid state relay, increases. The REE-5106 can control up to three VEP series valves or one solid-state relay.

The REE-5106 also has a built in 16 VDC power supply that can be used to power a CTE-5100 series room thermostat when a CSP-5100 series VAV terminal unit controller is not used. The REE-5106 is intended for use with the CSP-5001 controller/actuator and the CTE-5104 thermostat.

Specifications

Supply Voltage	24 VAC, +20%/–15% @ 1 VA
Input Signal	0 to 10 VDC
Output Capacity	AC Terminal: 10 VA max. @ 24 VAC DC Terminal: 10 mA @ 14 VDC
Thermostat Power Supply	16 VDC, ±10%
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: –40 to 140° F (–40 to 60° C)

REE-5123

Relay Module Proportional Reheat for NO Valves With Thermostat Power Supply



The KMC REE-5123 relay module is designed primarily for the proportional control of electric hot water valves on VAV terminal units in HVAC systems.

The percent on-time of the electric hot water valve varies in indirect proportion to a CTE-5100 series room thermostat signal. As the signal increases, the percent on-time of the electric hot water valve decreases.

The REE-5123 must be used in conjunction with the VEP series 2-way and 3-way hot water valves. Up to three VEP valves may be powered from an individual REE-5123.

Each module contains a built-in 16 VDC power supply which can be used to power any CTE-5100 series room thermostat when a CSP-5001 controller/actuator is not used. The REE-5123 is intended for use with the CTE-5104 thermostat.

Specifications

Supply Voltage	24 VAC, +20%/–15% @ 1 VA
Input Signal	0 to 10 VDC
Output Capacity	10 VA max. @ 24 VAC
Thermostat Power Supply	16 VDC, ±10%
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: –40 to 140° F (–40 to 60° C)



Sensors and Transmitters

CAE-1003/1103 Duct Smoke Detectors



CAE series duct smoke detectors provide early detection of smoke and products of combustion in air moving through HVAC ducts in commercial, industrial, and residential applications. These detectors are designed to prevent the circulation of smoke by the air handling systems, fans, and blowers. Complete systems can be shut down in the event of smoke detection. Ionization and photoelectric modes are available.

Both models include two alarm contacts, trouble contact and outputs for remote accessories such as horns, strobes, remote status indicators and test/reset switches or push buttons.

Additional key features include round duct or flat surface duct mounting, smoke tested with cover on, cover removed trouble indicator, magnet test capability (magnet included), reset and test are same switch that is accessible with cover on, and front loading sample tubes.

The intake sampling and the 7 in. (178 mm) long exhaust tubes are front loaded and extend into the duct. The intake sampling tube is available in three different lengths and must be ordered separately.

SEE ALSO: The [\(Electronic\) Transducers](#) section.

Specifications

Power Requirements

	Standby	Alarm
24 volts AC	9.4 mA	128.7 mA
24 volts DC	39.5 mA	59.3 mA
115 volts AC	13.8 mA	27.0 mA
230 volts AC	7.9 mA	16.0 mA

Relay Contact Rating

Alarm Contacts	2 SPDT rated 10 A @ 115 volts resistive 1 SPST @ 2 A
Trouble Contacts	1 SPDT rated 10 A @ 115 V resistive

Radioactive Element

(CAE-1003 only)
Americium 241; 0.9 microcuries
300 to 4000 fpm (1.5 to 20.3 mps)

Air Velocity

Temperature Limits

Temperature	32 to 100° F (0 to 38° C)
Humidity	10 to 85% Relative humidity, (non-condensing, non-freezing)

Dimensions

13.5 x 4.5 x 2.25 in.
342.9 x 114.6 x 57.2 mm
UL 268A

Approval

Models

Detectors

CAE-1003	Ionization duct smoke detector
CAE-1103	Photoelectric duct smoke detector

Intake sampling tube (one required)

SAA-1030	Duct width 12 to 36 inch
SAA-1060	Duct width 36 to 60 inch
SAA-1120	Duct width 60 to 120 inch

Accessories

IEE-1000	Remote control and indicator plates
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IEE-1000 Series

Remote Accessory Plates (for CAE-1003/1103)



The IEE-1000 series are designed for use with the CAE 1003/1103 Duct Smoke Detectors to provide remote status indication and control functions.

Each 24 VDC device is constructed of stainless steel with a brushed finish. The units mount on standard single gang electrical boxes except for the IEE-1008 which mounts in a 4" x 4" box.

Alarm indication is provided by a red alarm LED with normal indication provided by a green pilot LED. A momentary push-button or key switch is used for remote test and reset of the detector. Testing is performed by operating the switch, energizing all alarm relays and outputs in the detector. Once the detector is in alarm, it is reset by operating and releasing the switch. Reset is automatic on release of the switch. The alarm horn produces 78 dB @ 10 feet and can be supplied individually or with IEE-1006 components in a double gang plate.

Specifications

Power Supply

Alarm LED	15 mA at 24 VDC
Trouble LED	15 mA at 24 VDC
Pilot LED	15 mA at 24 VDC
Alarm Horn	20 mA at 24 VDC

Wiring

LEDs/Horn	6" 24 AWG pigtails
Switches	6" 22 AWG pigtails

Dimensions

IEE-1001 to 1007	2.75 x 4.5" (70 x 114 mm)
IEE-1008	4.5" x 4.5" (114 x 114 mm)

Sound Pressure

78 dB at 10 feet

Finish

Brushed stainless steel

Mounting

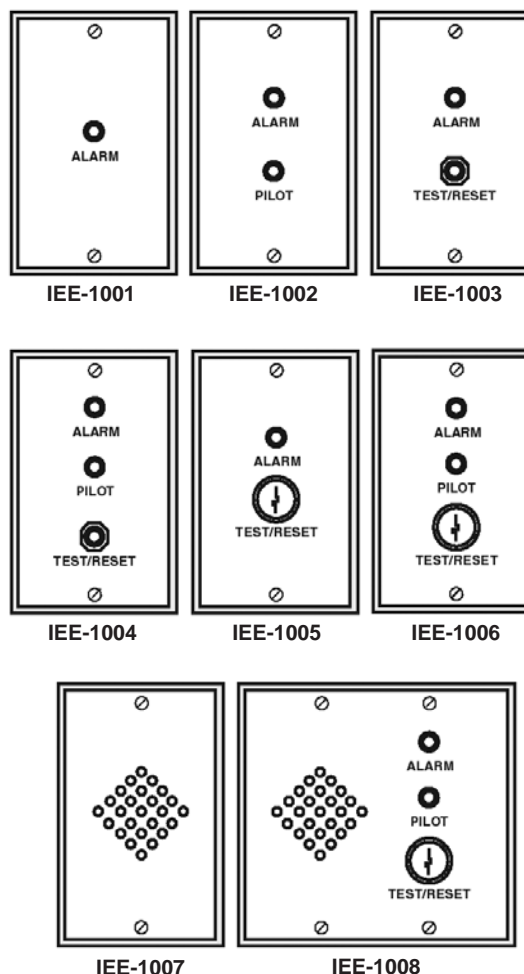
Standard single gang box except IEE-1008 which requires a 4 x 4 box

Approvals

UL listed, MEA approved and CSFM listed

Models

IEE-1001	Remote alarm LED (red)
IEE-1002	Remote alarm LED (red) and pilot LED (green)
IEE-1003	Remote alarm LED (red) and push-button test/reset switch
IEE-1004	Remote alarm LED (red), pilot LED (green) and push-button test/reset switch
IEE-1005	Remote alarm LED (red), key operated test/reset switch
IEE-1006	Remote alarm LED (red), pilot LED (green) and key operated test/reset switch
IEE-1007	Alarm horn
IEE-1008	Alarm horn, remote alarm LED (red), pilot LED (green) and key operated test/reset switch





IEI-1110

Refrigeration Alarm Monitor (for SLE-1001 FirstWatch)



The IEI-1110 Refrigeration Alarm Monitor (RAM-1) is a stand-alone operator interface for the SLE-1001 FirstWatch Refrigerant Monitor. Use the IEI-1110 to:

- Monitor and display flash gas and moisture signals from FirstWatch.
- Set flash gas and moisture alarm levels.
- Display visual and sound audible alarms when predefined alarm limits are exceeded.

The IEI-1110 uses nine-function buttons, a bright, four-character display, and an audible alarm to provide critical information and convenient operation. An auxiliary input for closed-switch contacts suspends IEI-1110 operation during system service or when the system is not operating.

Accessories

HMO-5022	4 x 4 inch adapter plate, almond
XEE-6111-40	120 volt transformer, single-hub
XEE-6112-40	120 volt transformer, dual-hub
SLE-1101	Refrigeration Alarm Monitoring Kit, includes SLE-1001, IEI-1110, and 40 VA transformer

Specifications**Operation Buttons**

Flash Alarm Level	Displays and sets the flash gas alarm level.
Flash	Displays the current corrected flash gas level.
H ₂ O Alarm Level	Displays and sets the moisture alarm level.
H ₂ O	Displays the current corrected moisture level.
Base Set	Displays and sets the current uncorrected flash gas or moisture level.
Delay	Displays and sets the flash gas alarm delay setting.
Mute	Silences audible alarms.
Λ and V	Increments or decrements the displayed value.

Display Views

Power On	ON
Flash Gas Alarm	FLSH
Moisture Alarm	H ₂ O
Override	HOLD

Display

Red LED, four-character, seven-segment, 0.37 inch high

Mounting

HMO-5040 backplate (supplied) to 2 x 4 in. vertical standard electrical handy box

Connections

Six-inch, four-conductor, 22 AWG cable for flash gas, moisture, power and ground

Two, six-inch, 22 AWG wires for auxiliary input

Material**Power Supply**

Light almond flame retardant plastic
24 volt AC (+20, -15%) 1.5 VA, 50-60 Hz

Approvals**Environmental Limits**

Operating	32 to 140° F (0-60° C)
Shipping	-40 to 140° F (-40 to 60° C)
Humidity	0-95% relative humidity (non-condensing)



SAE-1000 Series Carbon Dioxide (CO₂) Detectors



SAE-1001/1002 (Space)



SAE-1051 (Duct)

These detectors are designed to sense and transmit CO₂ levels to any compatible electronic analog control or DDC automation system for the control of ventilation equipment in industrial and commercial applications. Such information is crucial to demand controlled ventilation that ensures adequate indoor air quality while minimizing the energy costs of conditioning outside air.

These self-calibrating detectors use the sensor's on-board microprocessor to remember the lowest CO₂ concentration measured in a 24 hour period. The sensor assumes this low point is at outside levels. (The smart sensor discounts periodic elevated readings that might occur if, for example, a space was used 24 hours per day over a few days.)

After collecting 14 days worth of low concentration points, the sensor performs a statistical analysis comparing sensor readings to background levels. If there have been any small changes that could be attributable to sensor drift, a small correction factor is made to the sensor calibration to adjust for this change.

If a space does not experience a periodic drop to outside levels (e.g., where occupancy is 24 hours, 7 days/week), the self-calibration software should be deactivated. If the software has been deactivated (via menu buttons), calibration may be required every two to three years.

The SAE-1000 series is designed to meet ventilation requirements specified in the ASHRAE Standard 62.1-2007 *Ventilation for Acceptable Indoor Air Quality*.

Models

SAE-1001*	Space CO ₂ sensor
SAE-1002	Space CO ₂ sensor, with LCD display and form "C" relay
SAE-1051*	Duct CO ₂ sensor

*NOTE: An LCD display module (IEI-1001) can be added to the SAE-1001/1051 models for set-up and testing.

Accessories

IEI-1001	LCD Display Module (replacement in SAE-1002 or retrofit for SAE-1001/1051)
XEE-6111-040	Transformer, 120-to-24 VAC, 40 VA, single -hub
XEE-6112-040	Transformer, 120-to-24 VAC, 40 VA, dual -hub



Specifications

Gas Detected	Carbon Dioxide (CO ₂)
Monitor Range	0–2000 ppm (factory default), programmable from 0–1500 up to 0–10,000 ppm (in 500 ppm increments)
Sample Method	Diffusion or flow-through, sample tube for duct
Standard Accuracy	±50 ppm or +3% of reading @ 72° F (22° C) when compared to certified calibration gas
Sensing Element	Non-Dispersive Infrared (NDIR)
Operation Conditions	32–122° F (0–50° C), 0–95% RH non-condensing
Temperature Dependence	< 0.2% full scale per °C
Stability	< 2% full scale over life of sensor (15 years typical)
Pressure Dependence	0.13% of reading per mm Hg
Altitude Correction	Programmable from 0 to 5000 feet in 500 foot increments
Response Time	2 minutes for 90% step change
Warm-up Time	2 minutes
Power Supply	20–28 VAC/VDC (non-isolated half-wave rectified)
Consumption	140 mA max. @ 24 V, 40 mA average @ 24 V
Input Voltage Effect	Negligible over specified operating range
Protection Circuitry	Reverse voltage protected and output limited
Programming and Selection	Via internal push-buttons and jumper
Wiring Connections	Screw terminal block (14–22 AWG)
Output Signal	
SAE-1001/1002	4–20 mA active (sourcing) or 0–5 VDC, jumper selectable
SAE-1051	4–20 mA active (sourcing), 0–5 VDC, or 0–10 VDC, jumper selectable
Output Drive Capability	550 ohm max. for current output, 10K ohm min. for voltage output
Relay Output (SAE-1002 only)	
Configuration	One form "C" contact (NO and NC), 5 A @ 250 VAC, 5 A @ 30 VDC, power factor = 1, status LED
Trip Point	Programmable 500 to 1500 ppm in 50 ppm increments
Hysteresis/Deadband	Programmable 25 to 200 ppm in 25 ppm increments
LCD Display	(Standard in SAE-1002 only but can be retrofit into others with the IEI-1001) displays ppm level (required for field programming) 1 ppm resolution, 1.1" W x 0.5" H (28 x 13 mm) alpha-numeric 2 line x 8 characters
External Dimensions	
SAE-1001/1002	3.6" W x 5" H x 1.7" D (91 mm x 127 mm x 43 mm)
SAE-1051	4.9" W x 7.22" H x 1.69" D (124 mm x 183 mm x 43 mm)
Weight	
SAE-1001/1002	0.39 lbs. (0.17 kg)
SAE-1152	1.05 lbs. (0.47 kg)
Manufacturing	ISO 9001 registered quality system



SAE-1100 Series

Carbon Monoxide (CO) Detectors



The SAE-1100 series detectors are designed to sense and transmit CO (carbon monoxide) gas levels to any compatible electronic analog control or DDC automation system for the control of ventilation equipment in industrial and commercial applications. Such information is crucial to demand controlled ventilation that ensures adequate indoor air quality while minimizing the energy costs of conditioning outside air.

The KMC SAE-1100 series environmental, industrial, and commercial indoor detectors are available in both space and duct mount versions. They are for use in any industrial or commercial indoor environment where accurate CO detection is required. Detector features include:

- Electrochemical sensing elements with range of 0–300 ppm and 5% accuracy
- Field replaceable calibrated sensor module
- Optional audible alarm (SAE-1102/1152)
- Optional on-board relays with field-adjustable trip points (SAE-1102/1152)
- Powered by either 15–30 volt AC or DC source with no change to circuit required
- Choice of field-adjustable analog output signals, linearized over full range
- Menu-driven configuration set-up and testing (using the IEI-1001 LCD Display Module)

Models

SAE-1101	Space CO sensor
SAE-1102	Space CO sensor with two relays and audible alarm
SAE-1151	Duct CO sensor
SAE-1152	Duct CO sensor with two relays and audible alarm

Accessories

IEI-1001	LCD Display Module (replacement in SAE-1002 or retrofit for SAE-1001/1051)
XEE-6111-040	Transformer, 120-to-24 VAC, 40 VA, single -hub
XEE-6112-040	Transformer, 120-to-24 VAC, 40 VA, dual -hub



Specifications

Gas Detected	Carbon Monoxide (CO)
Range	0–300 ppm
Sample Method	Diffusion or flow-through, sample tube for duct
Standard Accuracy	±5 ppm or ±5% of reading (whichever is greater) @ 41–113° F (5–45° C), 15–95% RH
Sensing Element	Electrochemical with life expectancy of 5 to 7 years in air
Accuracy and Operation Conditions	±3% of reading @ 32 to 122° F (0 to 50° C) or ±5% of reading @ –4 to 122° F (–20 to 50° C), 15 to 95% RH, non-condensing
Temperature Dependence	< 0.2% full scale per °C
Stability	< 5% signal loss/year
Response Time	< 35 seconds for 90% step change
Warm-up Time	200 seconds
Pressure Coefficient	0.020 ± 0.008% signal/mbar
Typical Coverage Area	7500 ft ² (700 m ²)
Power Supply	15–30 VAC/VDC (non-isolated half-wave rectified)
Consumption	80 mA max. @ 24 VDC with all options on, 150 mA average @ 24 VAC
Input Voltage Effect	Negligible over specified operating range
Protection Circuitry	Reverse voltage protected and output limited, transient protection
Programming and Selection	Via internal push-buttons, with LCD display option and jumpers
Wiring Connections	Screw terminal block (14–22 AWG)
Output Signal	4–20 mA active (sourcing), 0–5 VDC, or 0–10 VDC, jumper selectable
Output Drive Capability	500 ohm max. for current output, 10K ohm min. for voltage output
Output Resolution	10-bit PWM
Relay Outputs	
Configuration	Two form “C” contacts (NO and NC), 5 A @ 250 VAC, 5 A @ 30 VDC, power factor = 1
Trip Point	Relay 1: Programmable 25 or 40–350 ppm in 10 ppm increments Relay 2: Programmable 100–400 ppm in 10 ppm increments
Hysteresis/Deadband	Programmable 10, 15, 25, 50, or 75 ppm
External Dimensions	
Space	4.9" W x 7.22" H x 1.69" D (124 mm x 183 mm x 43 mm)
Duct	4.9" W x 7.22" H x 9.9" (with duct insertion tube) D (124 mm x 183 mm x 250 mm)
Weight	1.05 lbs. (0.47 kg)
Regulatory	UL Recognized Component for ANSI/UL-2034 and UL-2075, E240671
Manufacturing	ISO 9001 registered quality system



SLE-1001

FirstWatch Refrigerant Sight Glass Monitor



The KMC SLE-1001 FirstWatch refrigerant monitor detects problems with critical refrigerant conditions long before visual observation can spot trouble. When mounted on an approved sight-glass window, this easy-to-install optical sensor detects the following refrigerant conditions:

- Moisture content
- Flash gas content (bubbles of non-condensed refrigerant)

By combining an SLE-1001 with a KMC digital facilities management system you can also:

- Remotely monitor systems in difficult to reach locations.
- Record the actual condition of the refrigerant.
- Initiate alarms to alert personnel to possible trouble areas.

The SLE-1001 FirstWatch Refrigeration monitor is designed for use with **Sporlan Valve Company's See•All® Combination Moisture and Liquid Indicators** or equivalent. FirstWatch is an ideal way to monitor critical areas that do not meet ANSI/ASHRAE Standard 15-1994.

Specifications

Output Signal

Flash gas	0–5 VDC, 100K ohm load impedance
Moisture	0–5 VDC, 100K ohm load impedance

Indicators

Flash gas	Red LED, flashing rate is proportional to concentration of bubbles
Moisture	Yellow LED, brightness is proportional to presence of moisture

Connections

Power Supply

Approvals

Environmental Limits

Operating	32 to 140° F (0–60° C)
Shipping	–40 to 140° F (–40 to 60° C)
Humidity	0–95% relative humidity (non-condensing)

Approved Sight Glass Windows

The SLE-1001 is approved for use with the following models of the Sporlan Valve Company's See•All® sight glass:

SA-14S, SA-14SU, SA-14UU
SA-15S, SA-15SU, SA-15UU
SA-17S
SA-19S

Requires adapter ring (supplied with SLE-1001):

SA-12S
SA-13S, SA-13SU, SA-13UU

Accessories

IEI-1110	Refrigerant Alarm Monitor (RAM-1)
XEE-6111-40	120 volt power transformer, single-hub
XEE-6112-40	120 volt transformer, dual-hub
SLE-1101	Refrigeration alarm monitoring kit, includes SLE-1001, IEI-1110, and 40 VA transformer.



SSE-1000/2000 Series

Duct Sensors for VAV Systems



The KMC SSE-1000 Duct Sensors are designed for use with VAV terminal units in HVAC systems. They are used in conjunction with the CEP-4000 series of controller-actuators to maintain the desired airflow to an occupied space. The CEP model must be ordered separately (refer to the CEP-4000 Series section).

Two sensor lengths are available to accommodate various box inlet sizes. Sensors are inserted into the inlet collar of the box; the foam backing on the sensor head protects against conditioned air leakage.

SSE-1011/1012/2011/2012s are “conformal” silicon coated for air streams that may have high humidity or may be contaminated with corrosive materials. The SSE-2000 series incorporates two additional terminals (“X” and “Y”) which allow duct temperature sensing for items such as the REE-1005 heating-cooling change over relay. In addition, the airflow portion of the signal is fully compensated for changes in temperature for accurate control of delivered air.

Specifications

Connections	Plated screw terminals
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Models

Standard

SSE-1001/2001	3-7/8" long (98 mm)
SSE-1002/2002	7-7/8" long (200 mm)

Conformal Coated

SSE-1011/2011	3-7/8" long (98 mm)
SSE-1012/2012	7-7/8" long (200 mm)

NOTE: For maximum measurement accuracy, install the longest sensor that will fit into the duct.

SSS-1000 Series

Differential Pressure Flow Sensors



These sensors are designed to sense differential pressure in the inlet section of variable air volume terminal units and fan terminal units. They can also be used to sense differential pressure at other locations in the main or branch duct systems. The differential pressure read between the high “H” port and the low “L” port can be used to determine the air flow.

These sensors are normally used in conjunction with the CSP series of VAV terminal controllers for individual zone control in HVAC systems. There are four lengths available to accommodate box size diameters of 4" up to 16".

SEE ALSO: [TSP-5000 Series](#) and [TSP-6001/6051](#) air-flow transducer-actuators in the [\(Electronic\) Transducers](#) section, the [\(Electronic\) Actuators](#) section, the [\(Electronic\) Actuators Accessories and Repair Parts](#) section, the [\(Electronic\) Controllers and Switches](#) section, the [\(Electronic\) Relays](#) section, and the [\(Electronic\) Thermostat](#) section.

Specifications

Material	Light almond ABS/Polycarbonate (UL94-5V)
Mounting	Integral flange with gasket
Connections	1/4" (6 mm) nipples for 3/8" (10 mm) OD polyethylene tubing
Sensing Points	SSS-1002 One set SSS-1003 Two sets SSS-1004 Three sets SSS-1005 Four sets
Temperature Limits	Operating 40 to 120° F (4 to 49° C) Shipping -40 to 140° F (-40 to 60° C)

Models

SSS-1002	3-5/32 inches long (80 mm)
SSS-1003	5-13/32 inches long (137 mm)
SSS-1004	7-21/32 inches long (195 mm)
SSS-1005	9-29/32 inches long (252 mm)

NOTE: For maximum measurement accuracy, install the longest sensor that will fit into the duct.



STE-1400 Series Temperature Sensors



STE-1421 Immersion Sensor

(Shown with Optional Metal Enclosures Instead of Plastic)



STE-1454 Strap-On Sensor



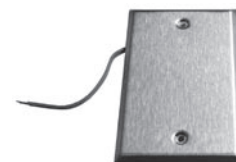
STE-1415 Flex-Duct Sensor



STE-1413 Duct Average Sensor



**STE-1451
Outdoor Air Sensor**



STE-1430 Room Sensor



**STE-1401 Duct Sensor
(without Handy Box)**

The KMC STE-1400 Series 10,000 ohm thermistor temperature sensors are available in different housings for surface, duct, averaging, immersion, strap-on, and outside air applications.

All probes are constructed to provide good heat transfer and fast response. The averaging sensors are available in both plenum-rated cable or with a copper probe.

Each **duct sensor** is encapsulated in a 1/4-inch OD stainless-steel probe. The probe protrudes from the bottom of the sensor housing, minimizing lead-length error. The probe can be inserted directly into the duct for single-point monitoring, and mounting holes are provided to rigidly support the assembly.

The **averaging duct sensor** incorporates numerous sensors inside a copper tube and is available in a 5/16-inch OD bendable copper probe or in a flexible plenum-rated cable. The completed assembly acts as a single sensor and any temperature change is averaged across the sensor. The probes can be bent to fit any size duct.

The **immersion sensor** is encapsulated in a 1/4-inch OD 304 stainless-steel probe. The probe protrudes from the bottom of the sensor housing, minimizing lead length error. The probe has a 1/2-inch NPT fitting to be screwed into the HMO-4533/4543 brass well or HMO-4534/4544 stainless-steel well.

The **strap-on sensor** is encapsulated in a two-inch-long, 1/4-inch OD stainless-steel probe. The probe has a five-foot lead wire and comes standard with an enclosure.

The **outside air sensor** is mounted in a weatherproof gasketed enclosure with a sun shield for protection against the outdoor elements. It comes with an LB c/w 1/2" NPT fitting for connection to conduit.

The flat plate **room sensor**, designed for temperature measurement of occupied spaces, can be mounted on an interior hollow wall in a standard single-gang electrical box. The sensor is mounted behind a flat brushed stainless-steel plate.

NOTE: Standard enclosures are black plastic (where enclosures are included and not applicable for the STE-1451). Metal enclosures are optional; use "M" after the part number to specify a metal enclosure.

Models

STE-1401	8-inch Duct Rigid (w/ 10-foot plenum-rated cable, w/o enclosure)
STE-1402	8-inch Duct Rigid (w/ 5-foot non-plenum-rated cable, w/ enclosure)
STE-1404	12-inch Duct Rigid
STE-1405	4-inch Duct Rigid (w/o enclosure)
STE-1411	6-foot Duct Averaging (copper)
STE-1412	12-foot Duct Averaging (copper)
STE-1413	24-foot Duct Averaging (copper)
STE-1414	20-foot Duct Averaging (copper)
STE-1415	6-foot Duct Averaging (flexible)
STE-1416	12-foot Duct Averaging (flexible)
STE-1417	24-foot Duct Averaging (flexible)
STE-1421	4-inch Immersion (without well—see Accessories)
STE-1422	6-inch Immersion (without well—see Accessories)
STE-1430	Room, Flat Plate
STE-1451	Outside Air
STE-1454	2-inch Strap-On

Specifications

Sensor	Type III thermistor
Resistance	10K ohm @ 77° F (25° C)
Accuracy	± 0.36° F (± 0.20° C)
Temperature Limits	Std. Limits: -4 to 221° F (-20 to 105° C) Outdoor Air only: -40 to 221° F (-40 to 105° C)
Wiring	22 AWG wire leads

Accessories

The following thermowells are available for the STE-1421/1422:

HMO-4532	Thermal compound, 1 oz.
HMO-4533	4" Brass well
HMO-4534	4" 304 Stainless-steel well
HMO-4543	6" Brass well
HMO-4544	6" 304 Stainless-steel well



STE-5000/6000 Series Cross-Reference

(Obsolete) STE-5000 Model and Description		STE-6000 Model Replacement	
		(with Screw Clamp Terminals)	(with RJ-45 Connector)
STE-5011-10	ROOM SENSOR; 10K OHM	STE-6011	STE-6010
STE-5012-10	ROOM SENSOR W/DEG.F ADJUSTMENT	N/A, STE-6012*	STE-6014-10
STE-5012-11	ROOM SENSOR W/DEG.C ADJUSTMENT	N/A, STE-6012*	STE-6014-11
STE-5012-14	ROOM SENSOR W/+/- ADJUSTMENT	N/A, STE-6012*	STE-6014 -10/11
STE-5013-10	ROOM SENSOR W/NO & LED	STE-6013	STE-6015
STE-5014-10	ROOM SENSOR W/NO;LED;F ADJ.	STE-6020-10	STE-6018-10
STE-5014-11	ROOM SENSOR W/NO;LED;C ADJ.	STE-6020-11	STE-6018-11
STE-5014-14	ROOM SENSOR W/NO;LED;+/-ADJ.	N/A, STE-6012*	N/A, STE-6016*
STE-5015-10	ROOM SENSOR W/NO;3LED;F ADJ.	N/A, STE-6012*	N/A, STE-6016*
STE-5015-11	ROOM SENSOR W/NO;3LED;C ADJ.	N/A, STE-6012*	N/A, STE-6016*
STE-5015-14	ROOM SENSOR W/NO;3LED; +/-ADJ	STE-6020 -10/11	STE-6018 -10/11
STE-5016-10	ROOM SENSOR; W/INC-DEC SWITCHES	N/A, STE-6012*	N/A, STE-6016*
STE-5017-10	ROOM SENSOR; INC-DEC; NO; 1LED	N/A, STE-6012*	N/A, STE-6016*
STE-5018-10	ROOM SENSOR; INCR-DECR;1LED	N/A, STE-6012*	N/A, STE-6016*
STE-5021-10	ROOM SENSOR W/NO SWITCH	STE-6013	STE-6015
STE-5022-10	ROOM SENSOR W/NO;DEG F ADJ.	STE-6019-10	STE-6017-10
STE-5022-11	ROOM SENSOR W/NO;DEG C ADJ.	STE-6019-11	STE-6017-11
STE-5022-14	ROOM SENSOR W/NO;+/- ADJ.	STE-6020 -10/11	STE-6018 -10/11
STE-5111-10	ROOM SENSOR; 10K OHM	STE-6011	STE-6010
STE-5112-10	ROOM SENSOR W/DEG.F ADJUSTMENT	N/A, STE-6012*	STE-6014-10
STE-5112-11	ROOM SENSOR W/DEG.C ADJUSTMENT	N/A, STE-6012*	STE-6014-11
STE-5112-14	ROOM SENSOR W/+/- ADJUSTMENT	STE-6020 -10/11	STE-6018 -10/11
STE-5113-10	ROOM SENSOR W/NO & LED	STE-6013-10	STE-6015-10
STE-5114-10	ROOM SENSOR W/NO;LED;F ADJ.	STE-6020-10	STE-6018-10
STE-5114-11	ROOM SENSOR W/NO;LED;C ADJ.	STE-6020-11	STE-6018-11
STE-5114-14	ROOM SENSOR W/NO;LED;+/-ADJ.	STE-6020 -10/11	STE-6018 -10/11
STE-5115-10	*SPECIAL ORDER*W/NO;3LED;F A	N/A, STE-6012*	N/A, STE-6016*
STE-5115-11	*SPECIAL ORDER*W/NO;3LED;C A	N/A, STE-6012*	N/A, STE-6016*
STE-5116-10	ROOM SENSOR;W/INC-DEC SWITCHES	N/A, STE-6012*	N/A, STE-6016*
STE-5117-10	*SPECIAL ORDER*INC-DEC;NO;1L	N/A, STE-6012*	N/A, STE-6016*
STE-5118-10	ROOM SENSOR; INCR-DECR;1LED	N/A, STE-6012*	N/A, STE-6016*
STE-5121-10	ROOM SENSOR W/NO SWITCH	STE-6013	STE-6015
STE-5122-10	ROOM SENSOR W/NO;DEG F ADJ.	STE-6019-10	STE-6017-10
STE-5122-11	ROOM SENSOR W/NO;DEG C ADJ.	STE-6019-11	STE-6017-11
STE-5122-14	ROOM SENSOR W/NO;+/- ADJ.	N/A, STE-6012*	STE-6014-10
STE-5212-10	ELEC. TEMP. SENSOR; DEG F	N/A, STE-6012*	STE-6014-10
STE-5212-11	ELEC. TEMP. SENSOR; DEG C	N/A, STE-6012*	STE-6014-11
STE-5224-10	ELEC SENSOR W/L.O.;RJ-11;DEG F	N/A, STE-6012*	N/A, STE-6016*
STE-5224-11	ELEC SENSOR W/L.O.;RJ-11;DEG C	N/A, STE-6012*	N/A, STE-6016*
STE-5225-10	ELEC TEMP SENSOR; RJ-11; DEG F	N/A, STE-6012*	N/A, STE-6016*
STE-5225-11	ELEC TEMP SENSOR; RJ-11; DEG C	N/A, STE-6012*	N/A, STE-6016*
STE-5312-10	ELEC. TEMP. SENSOR; DEG F	N/A, STE-6012*	STE-6014-10
STE-5312-11	ELEC. TEMP. SENSOR; DEG C	N/A, STE-6012*	STE-6014-11
STE-5324-10	ELEC SENSOR W/L.O.;RJ-11;DEG F	N/A, STE-6012*	N/A, STE-6016*
STE-5324-11	ELEC SENSOR W/L.O.;RJ-11;DEG C	N/A, STE-6012*	N/A, STE-6016*
STE-5325-10	ELEC TEMP SENSOR; RJ-11; DEG F	N/A, STE-6012*	N/A, STE-6016*
STE-5325-11	ELEC TEMP SENSOR; RJ-11; DEG C	N/A, STE-6012*	N/A, STE-6016*
*Some STE-5000 models have no direct replacement. With only minor changes in the program, however, the STE-6012/6016 can replace any STE-5000 series model, including those with a dial, LED, and switch. (Rev. 0, 01/2007)			

SEE ALSO: The [STE-6000 Series](#) section.



STE-5200/5300 Series

Room Temperature Sensors



STE-5200/5300 series room temperature sensors are designed for use in KMC Digital or other building automation systems. They incorporate a 10,000 ohm (@ 77° F) thermistor for the sensing element, providing precise, stable temperature sensing. All models provide 10,000 ohm (5,000 ohm @ 70° F) setpoint adjustment capability which may be restricted to a single setpoint or specific range.

Models are available to provide an interface, utilizing an RJ-11 in-line female connector, to the associated KMC Digital controller. The STE-5224/5324 models provide 2 dual-color lighted push-buttons for on/off or override functions with 3 levels of indication: off, red, and green.

The scale plate assembly and a cover must be ordered separately (see Accessories section). Item shown with cover and scale plate already assembled. Models are available with light almond or white ABS covers. Metal covers are optional in brushed brass, aluminum or painted white or light almond finishes. They can be mounted vertically or horizontally. Mounting kits are also available.

Models

STE-5*12-10	Temperature sensor, ° F
STE-5*12-11	Temperature sensor, ° C
STE-5*24-10	Temperature sensor, ° F, RJ-11 connector and push-buttons
STE-5*24-11	Temperature sensor, ° C, RJ-11 connector and push-buttons

* 2 = Light almond; 3 = white. Order desired horizontal or vertical scale plate separately (see Accessories section).

Specifications

Sensor

Accuracy	±0.36° F (±0.20° C)
Resistance	10K ohm @ 77° F (25° C)
NTC	4.37%/° C @ 25° C
Dissipation Constant	2.8 mW/° C
Type	Type II thermistor
KMC Digital Range	#4/#5

Setpoint Potentiometer

Range	85° F (29° C) = 1410 ohms
	70° F (21° C) = 5000 ohms
	55° F (13° C) = 8590 ohms

Pushbuttons

Left	Momentary, shunts temp. sensor
Right	Momentary, shunts potentiometer

Indication

Temperature Limits

Bipolar red/green LED, 12 VDC max.
Operating: 40 to 120° F (4 to 49° C)
Shipping: -40 to 140° F (-40 to 60° C)
Humidity: 0 to 100% non-condensing

Accessories

HFO-0026 Blank cover insert "blanks" out window in large thermostats cover, light almond



HFO-0027 Setpoint stop strip 4 "stops" per strip



HMO-5001 Dual toggle bolt, allows mounting of large thermostats to drywall



HMO-5012 Insulating/extending back-plate, 1-1/8" deep, for large thermostats, white



HMO-5002 Light almond

HMO-5013 Insulating/extending back-plate, 1-11/16" deep, for large thermostats, white



HMO-5007 Light almond

HMO-5023 Mounting strap (allows thermostat to be mounted on hollow walls, includes 2 #6-32 screws, 2" long, "template" printed on envelope)



HMO-5025 Clear plastic thermostat guard cover, 6.375" W x 3.5" H x 3.25" D (162 x 89 x 82 mm)





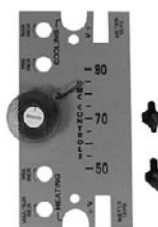
Backplate kit (allows thermostat to be mounted to 2x4 handy box, includes 2 #6-32 screws, decorative matching plate):

HMO-5030 Light almond
HMO-5031 White



Vertical thermostat scale plates, must be ordered separately, includes 2 each HPO-0046 scale plate pins:

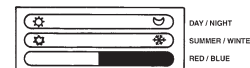
HPO-0061-10 °F
HPO-0061-11 °C



HMO-5500 Thermostat universal upgrade kit, for replacing other thermostat brands with KMC, light almond (includes: plates, brackets, screws, O-rings, couplings, and adapters)—See the [CTE/TTE-5000 Series Accessories](#) section for more details.



HPO-1320 Label strip, 3 labels per strip allow for day/night, summer/winter or heating/cooling indication (1 furnished with each cover)



Thermostat covers, blank:
HPO-1501 Light almond, ABS
HPO-1502 White, ABS
HPO-1503 Brushed aluminum



HPO-0044 Replacement thermostat cover screws



HPO-0046 Replacement scale plate pins



Thermostat covers, full window:
HPO-1511 Light almond ABS
HPO-1512 White ABS
HPO-1513 Brushed aluminum
HPO-1514 White metal
HPO-1515 Brushed brass
HPO-1516 Light almond metal



HPO-0051 Replacement cover window for thermostat (1 furnished with each cover)



Thermostat covers, with holes for local indexing:
HPO-1521 Light almond ABS
HPO-1522 White ABS
HPO-1523 Brushed aluminum
HPO-1526 Light almond metal



Horizontal thermostat scale plates, must be ordered separately (includes 2 each HPO-0046 scale plate pins):

HPO-0060-10 °F
HPO-0060-11 °C





STE-6000 Series

Room Temperature Sensors



An STE-6014/6017/6019/6018/6020 includes a **rotary setpoint dial** with warmer/cooler icons.

An STE-6013/6015/6017/6019/6018/6020 allows selection of an **override** condition by pushing the **button** on the front. A **green status LED** (not on the STE-6017/6019) illuminates according to the user-defined controller configuration (e.g., during setback/setup or during normal/override modes).

An STE-6012/6016 transmitter includes an **LCD display** for the room temperature and setpoint. The temperature display can be toggled between Fahrenheit and Celsius scales. The setpoint is adjustable via the up and down arrow buttons on the front panel. If the system is in normal/override mode, pressing a button will raise or lower the setpoint. When either button is pushed, the display will toggle from room temperature to the setpoint. When the button is released, the number displayed is the new setpoint, and the display will return to room temperature after ten seconds. If the system is in setback/setup (for heating/cooling) mode, pressing either button selects override mode. (See Power Requirements in the Specifications section.)

An STE-6010/6014/6015/6016/6017/6018 includes a four-pin **EIA-485** (formerly RS-485) **data port** on the cover's underside for easy temporary computer connection to the network. (Access with a KMD-5624 cable.)

Models

STE-601x Model Number	Setpoint Adjust		Other Interface Features			Cable Connections			Temperature Output	
	Rotary Dial*	Up/Down Buttons	Override Button(s)	LCD Display	LED Status Indicator	Screw Clamp Terminals	RJ-45 Connector**	EIA-485 Data Port***	10K Ohms Thermistor	0 to 5 VDC Transmitter
6010-10							X	X	X	
6011-10						X			X	
6013-10			X		X	X			X	
6015-10			X		X		X	X	X	
6012-10		X	X	X		X				X
6016-10		X	X	X			X	X		X
6014-10	X						X	X	X	
6017-10	X		X				X	X	X	
6019-10	X		X			X			X	
6018-10	X		X		X		X	X	X	
6020-10	X		X		X	X			X	

*Earlier rotary dial models were marked with ° F or ° C, but dials now have warmer/cooler icons instead of numbers

**Requires KMD-569x sensor to controller cable

***Requires KMD-5624 PC data port cable (see Accessories)

The standard color is almond. To order in white (minimum quantity of 250 required), add a "W" in the place of the hyphen near the end of the model number (e.g., STE-6012W10).

Specifications

Connections	Clamp (screw-type) terminals or modular RJ-45 jack (see Models chart)
Material	Light almond or white flame-retardant plastic
Weight	Approx. 1.25 oz. (35 grams)
Sensor	Type II thermistor
Accuracy	± 0.36° F (± 0.20° C)
Resistance	10K ohm @ 77° F (25° C)
NTC	4.37%/° C @ 25° C
Temp. Reading	Thermistor resistance only from except the 0-5 VDC voltage output from the STE-6012/6016 transmitter
Power Requirements	
LED Indicator	10 VDC (12 VDC max); 5 mA max. current draw at 12 VDC
LCD Display	7.5 VDC (10.4 mA max. current draw) for setback/setup mode or 12 VDC (9.7 mA) for normal/override modes
Environmental Limits	
LCD Display	35 to 90° F (2 to 32° C)
Operating	34 to 125° F (1.1 to 51.6° C)
Shipping	-40 to 140° F (-40 to 60° C)
Humidity	0 to 95% RH Non-condensing

Accessories

HMO-6036 Universal backplate
 KMD-569x STE-6010/6014/6015/6016/6017/6018 to controller cable with RJ-45 to RJ-11 connectors (-5693 = 25 ft.; -5694 = 50 ft.; -5695 = 75 ft.)



KMD-5624 PC Data Port (EIA-485) Cable
 KMD-5576 EIA-485 to USB Communicator

SEE ALSO: The **STE-5000/6000 Series Cross-Reference** section.

**THE-1002****Duct Mounted Humidity Transmitter w/ Temp.**

The THE-1002 duct-mounted humidity transmitter is designed for use with automation systems in commercial buildings, hospitals, museums, or other facilities requiring accurate measurement of relative humidity and temperature. It transmits separate relative humidity (RH) and temperature signals for use in temperature, humidity, or enthalpy-based control applications.



This transmitter now uses a state-of-the-art silicon CMOS chip sensor. This provides much more durable and reliable performance than the older capacitive polymer sensor. Plus, it responds within seconds to changes in humidity with a very high degree of accuracy.

Able to accept VAC or VDC supply voltage, the THE-1002 offers three different standard outputs, any one of which may be used per application. This reduces the need to stock multiple transmitters to accommodate several output requirements.

The THE-1002 also contains a 10,000 ohm (@ 77° F) thermistor for measuring duct temperature. The sensor probe is filtered to reduce the possibility of contamination from airborne dirt and dust.

Specifications

Supply Voltage	24 VAC -15%, +20%; 28 to 40 VDC
Supply Power	0.75 VA at 24 VAC 12.5 mA at 28 VDC
Humidity Element	
Output Range	0 to 100% RH
Sensing Accuracy	@ 25° C $\pm 2\%$ RH over the 10% to 90% RH range
Output Signal over 0 to 100% RH	0 to 5 VDC, 0 to 10 VDC, or 4 to 20 mA
Output Capacity	0-5 or 0-10 VDC 4-20 mA
	capable of driving 1000 Ω or greater (24 VAC or 28 VDC supply) 250 Ω min. to 650 Ω max.
Temperature Sensor	
Type	Type II thermistor
Accuracy	$\pm 0.36^\circ$ F ($\pm 0.20^\circ$ C)
Resistance	10K ohm @ 77° F (25° C)
NTC	4.37%/° C @ 25° C
Wire Size	18 to 22 AWG w/ max. 250-foot length
Material	Flame-retardant plastic
Weight	12 oz. (34 kg)
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)
Humidity	0 to 100% RH, non-condensing

THE-1102**Wall Mounted Humidity Transmitter w/ Temp.**

The THE-1102 humidity transmitter is designed for use with automation systems in commercial buildings, hospitals, museums, or other facilities requiring accurate measurement of relative humidity and temperature. It transmits separate relative humidity (RH) and temperature signals for use in temperature, humidity, or enthalpy-based control applications.



This transmitter now uses a state-of-the-art silicon CMOS chip sensor. This provides much more durable and reliable performance than the older capacitive polymer sensor. Plus, it responds within seconds to changes in humidity with a very high degree of accuracy.

The THE-1102 also contains a thermistor for measuring room temperature. The 10,000 ohm (@ 77° F) thermistor provides precise, stable temperature sensing.

The durable, low-profile, thermostat-style cover is visually appealing. These transmitters may be surface-mounted on a hollow wall or to a 2 x 4 in. electrical box.

When used with the REE-2002 relay, these transmitters can accept VAC or VDC inputs, and they can supply outputs of 0 to 5 VDC, 0 to 10 VDC, or 4 to 20 mA. This eliminates the need to stock multiple transmitters for accommodating several output requirements. (See the REE-2002 data sheet for further relay details.)

Accessories

HMO-6036	Universal backplate
REE-2002	Relay module

**Specifications**

Supply Voltage	W/o REE-2002 With REE-2002	10 to 15 VDC 24 VAC, -15%, +20% 28 to 40 VDC
Supply Power	W/o REE-2002 With REE-2002	7.0 mA at 12 VDC 0.75 VA at 24 VAC 9.5 mA at 28 VDC
Humidity Element		
Output Range	0 to 100% RH	
Accuracy	@ 25°, $\pm 2\%$ RH over the 10-90% RH range	
Output Signal over 0 to 100% RH	W/o REE-2002 With REE-2002	0 to 5 VDC 0 to 5 VDC, 0 to 10 VDC, or 4 to 20 mA
Output Capacity	W/o REE-2002 With REE-2002	0 to 5 VDC capable of driving 1000 ohms or greater 0 to 5 or 0 to 10 VDC capable of driving 1000 ohms or greater 4 to 20 mA (24 VAC or 28 VDC supply) 250 Ω min. to 650 Ω max.
Temperature Sensor		
Type	Type II thermistor	
Accuracy	$\pm 0.36^\circ$ F ($\pm 0.20^\circ$ C)	
Resistance	10K ohms @ 77° F (25° C)	
NTC	4.37%/° C @ 25° C	
Dissipation	2 mW/° C	
Constant		
Temperature Limits		
Operating	40 to 120° F (4 to 49° C)	
Shipping	-40 to 140° F (-40 to 60° C)	
Humidity	0 to 100% RH, non-condensing	



THE-1105

Wall Mounted Humidity Transmitter with Temp. Sensor



The THE-1105 humidity transmitter may be used in vertical or horizontal installations in building management systems requiring accurate monitoring of humidity and temperature. It transmits separate relative humidity (RH) and temperature signals for use in temperature, humidity, or enthalpy-based control applications. Environmentally rugged, it is especially suited for hospitals, laboratories, and swimming pool areas.

This transmitter now uses a state-of-the-art silicon CMOS chip sensor. This provides much more durable and reliable performance than the older capacitive polymer sensor. Plus, it responds within seconds to changes in humidity with a very high degree of accuracy.

The THE-1105 has two user-selectable output ranges: 0 to 5 or 0 to 10 VDC, scaled over 0 to 100% RH range.

The THE-1105 also contains a thermistor for measuring room temperature. The 10,000 ohm (@ 77° F) thermistor provides precise, stable temperature sensing.

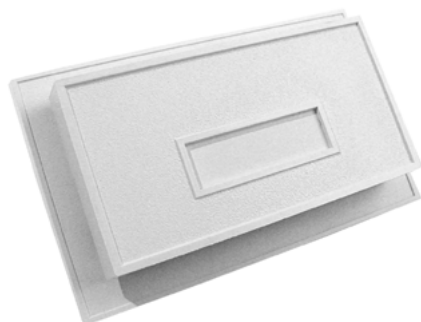
Accessories

HMO-5023	Drywall mounting kit
HMO-5024	2 x 4 inch almond horizontal backplate with alum. trim
HMO-5026	2 x 4 inch white horizontal backplate with alum. trim
HMO-5030	2 x 4 inch almond vertical backplate with alum. trim
HMO-5031	2 x 4 inch white vertical backplate with alum. trim
HPO-1501	Light almond, ABS cover
HPO-1502	White, ABS cover
HPO-1503	Brushed aluminum, metal cover



Specifications

Supply Voltage	24 VAC -15%, +20%; 28 to 40 VDC
Supply Power	0.84 VA at 24 VAC 12.5 mA at 28 VDC
Humidity Element	
Output Range	0 to 100% RH
Sensing Accuracy	@ 25° C ±2% RH over the 10% to 90% RH range
Output Signal over 0 to 100% RH	0 to 5 VDC or 0 to 10 VDC
Output Capacity	0 to 5 or 0 to 10 VDC capable of driving 1000 ohm or greater
Temperature Sensor	
Type	Type II thermistor
Accuracy	±0.36° F (±0.20° C)
Resistance	10K ohm @ 77° F (25° C)
NTC	4.37%/° C @ 25° C
Dissipation	2 mW/° C
Constant	
Wire Size	18 to 22 AWG w/ max. 250-foot length
Material	
Base	Black ABS
Cover	Light Almond flame-retardant plastic
Weight	3.0 oz. (85 grams)
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)
Humidity	0 to 100% RH, non-condensing

**TTE-1001****Room Temperature Transmitter****Specifications**

Supply Voltage	9.1 VDC, $\pm 10\%$
Output Range	3.167 to 4.767 VDC
Range	55 to 85° F (13 to 29° C)
Sensor Action	Direct acting
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (40 to 60° C)

The KMC TTE-1001 Room Temperature Transmitter is designed for use in HVAC systems where the requirement calls for remote control of space temperature. When used in conjunction with the CEE-1100 series of remote controllers, it provides an accurate method of control with actual settings being made at the CEE controller, rather than at the final control device.

The TTE-1001 transmitter may also be used with the CTE-1100/5100 series thermostats for temperature averaging.

Furnished with a blank cover, the TTE-1001 offers several mounting methods, such as the ability to mount on a 2 x 4" electrical box.

Accessories**Associated Remote Controllers:**

CEE-1101-10 DA/Cooling (fan powered)
CEE-1103-10 DA/Cooling; RA/Heating (fan powered)
CEE-1105-10 DA/Night; DA/Day (fan powered)

Associated Thermostats:

CTE-1101
CTE-1103
CTE-1105
CTE-5101
CTE-5102
CTE-5103
CTE-5104
CTE-5105

NOTE: For other accessories, see the [CEE/CTE/TTE-1000/1100/1500/5000 Series Accessories](#) section.

TTE-2001**Duct Temperature Transmitter**

Duct temperature transmitter for use with CEE-1100 series remote thermostat controllers, 55 to 85° F, 4" insertion length.

TTE-5001/5011**Mini Room Temperature Transmitter**

Mini transmitters, 55 to 85° F with blank cover.

Models

TTE-5001	White
TTE-5011	Light almond

NOTE: For accessories, see the [CTE/TTE-5000 Series Accessories](#) section.



Thermostats

BAC-10000 Series

FlexStat™ BACnet Programmable Thermostats



(Shown with
Optional
Occupancy
Sensor and Light
Almond Case)

Models

Model*	Outputs**	Optional Sensors***
BAC-10030CW	3 Relays (Binary Outputs)	None
BAC-10130CW		Humidity
BAC-11030CW		Occupancy
BAC-11130CW		Humidity and Occupancy
BAC-10036CW	3 Relays and 6 Analog Outputs	None
BAC-10136CW		Humidity
BAC-11036CW		Occupancy
BAC-11136CW		Humidity and Occupancy
BAC-10063CW	6 Relays and 3 Analog Outputs	None
BAC-10163CW		Humidity
BAC-11063CW		Occupancy
BAC-11163CW		Humidity and Occupancy
BAC-10090CW	9 Relays	None
BAC-10190CW		Humidity
BAC-11090CW		Occupancy
BAC-11190CW		Humidity and Occupancy

*Standard color is white. To order optional light almond color, remove the "W" at the end of the model number (e.g., BAC-11163C). Almond has additional cost and min. order quantities.

**Analog outputs produce 0–12 VDC @ 20 mA maximum, and relays carry 1 A max. per relay or 1.5 A per bank of 3 relays (relays 1–3, 4–6, and 7–9) @ 24 VAC/VDC.

***All have temp. sensor and 3 analog (0–12 VDC) inputs.

This series of intelligent temperature/humidity-sensing, wall-mounted, thermostat/controllers are native BACnet Advanced Application Controllers (B-AAC) for use in a BACnet system. The FlexStat simplifies networked zone control for common packaged HVAC equipment, such as packaged roof top units, fan coil units, heat pumps, and other similar applications. In addition, applications such as pressure-dependent VAV, terminal reheat, and medium-sized central-station air-handling-equipment applications may also be addressed through the libraries of programs built into the devices.

The on-board library of programs permits rapid configuration of a wide range of HVAC control applications, including, for example, single- and multi-stage packaged, unitary, and split systems, factory-packaged economizers, field-applied economizers, water-source and air-to-air heat pumps, fan coil units, and central-station air handling units.









Standard hardware options include a mix of output configurations (relays and analog outputs), on-board humidity and occupancy sensing, and inputs for additional analog and binary type remote external sensors, such as outside air temperature sensors, duct temperature sensors, and air differential air pressure switches.

Specifications

Supply Voltage	24 VAC (+20%/–15%), Class 2
Supply Power	1 VA steady state, up to 3 VA at start-up
Connections	Wire clamp type terminal blocks; 14–22 AWG Four-pin EIA-485
Inputs/Outputs	(See Models chart)
Display	64 x 128 pixel dot matrix LCD
Case Material	White (standard) or light almond (optional) flame-retardant plastic
Dimensions	5.551 x 4.192 x 1.125 inches (141 x 106 x 28.6 mm)
Approvals	UL 916 Energy Management Equipment FCC and BTL listings pending
Weight	0.48 lbs. (218 g)
Temperature/Humidity Model Sensors	
Sensor Type	CMOS
Temperature Readings	
Accuracy	±0.9° F offset (±0.5° C) from 40 to 104° F (4.4 to 40° C)
Response Time	5 to 30 seconds
Humidity Readings	
Range	0 to 100% RH
Accuracy	±2% RH (10 to 90% RH) (@ 25°C)
Response Time	Less than or equal to 4 seconds
Temperature-Only Model Sensors	
Sensor Type	Thermistor
Accuracy	±0.36° F (±0.2° C)
Occupancy Sensor	10 meter (33 feet) range
Environmental Limits	
Operating	34 to 125° F (1.1 to 51.6° C)
Shipping	–40 to 140° F (–40 to 60° C)
Humidity	0 to 95% RH (non-condensing)












BAC-10000 Series FlexStat Accessories

HPO-0044	Replacement cover hex screw		KMD-5699	FlexStat firmware flash upgrade kit	
KMD-5575	Network repeater/isolator		SP-001	Flat blade and hex end screwdriver (with KMC logo) for cover hex screws	
KMD-5567	Surge suppressor		XEE-6111-040	Transformer, 120-to-24 VAC, 40 VA, single-hub	
KMD-5576	EIA-485 to USB Communicator		XEE-6112-040	Transformer, 120-to-24 VAC, 40 VA, dual-hub	
KMD-5624	PC data port (EIA-485) cable (FlexStat to USB Communicator)				

CEE/CTE/TTE-1000/1100/1500/5000 Series Accessories

This page lists accessories for the following series:

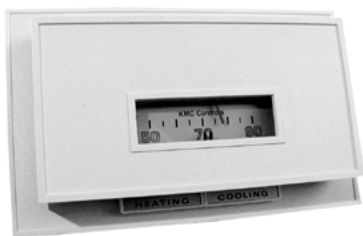
- CEE-1100
- CTE-1000/1100/1500/5000
- TTE-1000/5000
- (See more CTE-5100 series accessories under the CTE-5100 Series section)

			HMO-5013	Insulating/extending back-plate, 1-11/16" deep, for large thermostats, white	
			HMO-5007	Light almond	
HFO-0026	Blank cover insert "blanks" out window in large thermostats cover, light almond		HMO-5025	Clear plastic thermostat guard cover, 6.375" W x 3.5" H x 3.25" D (162 x 89 x 82 mm)	
HFO-0027	Setpoint stop strip, 4 "stops" per strip		HSO-5001	Thermostat test leads for connecting CEE/CTE-1000/1100/5100 series thermostats (but not for CTE-5000 series) to a voltmeter	
HMO-5001	Dual toggle bolt, allows mounting of large thermostats to drywall		HMO-5500	Thermostat universal upgrade kit, for replacing other thermostat brands with KMC, light almond (includes: plates, brackets, screws, O-rings, couplings, and adapters)—See the CTE/TTE-5000 Series Accessories section for more details.	
Mounting Trim Plate:			HMO-5022	Light almond	
HMO-5027	White				
HMO-5012	Insulating/extending back-plate, 1-1/8" deep, for large thermostats, white				
HMO-5002	Light almond				



CEE-1100 Series

REMOTE Thermostat Controllers



The CEE-1100 series of electronic thermostat controllers are similar to the corresponding model of CTE-1100 thermostats except the CEE Series requires the use of a "remote" temperature sensor (see Accessories).

These thermostats are designed to be used with specific CEP/CSP series controller-actuators for controlling damper actuators and/or valves in HVAC systems. The ability to adjust minimum and maximum limits is at the thermostat rather than at the controller. An auxiliary flow, constant volume setpoint may be initiated manually or automatically for desired air flow across a reheat coil. It is a dual setpoint unit for cooling with reheat applications. Several mounting methods are available.

An additional output is provided for control of the optional REE series relay modules. This output is not restricted by the CEE's minimum and maximum control points.

Cover construction allows for the setpoint indicator and thermometer to be either visible or concealed. Optional accessories include an insert for concealing the window, and stops to lock/restrict setpoint adjustments.

Models

CEE-1101-10	° F, horizontal, single temp
CEE-1103-10	° F, horizontal, dual temp
CEE-1105-10	° F, horizontal, dual temp, night/day

Specifications

Supply Voltage	9.1 VDC $\pm 5\%$
Output Range	0 to 6 VDC
Range	55 to 85° F (13 to 29° C)
Proportional Band	2° F (1.1° C)
Thermostat Action	
CEE-1101-10	Direct Acting
CEE-1103-10	Cooling: Direct Acting Heating: Reverse Acting
CEE-1105-10	Direct Acting
Cover Type	Furnished w/ window
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)
Material	"-10" models are available only in white

Accessories (Remote Sensors/Transmitters)

TTE-1001	Horizontal or vertical mount, 55-85° F, blank cover
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TTE-2001	Duct transmitter, 55-85° F, 4" insertion length
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Mini transmitters, 55-85° F, blank cover:	
TTE-5001	White
TTE-5011	Light almond



SEE ALSO: The [CEE/CTE/TTE-1000/1100/1500/5000 Series Accessories](#) section.

CTE-1001/1002

Room Thermostat, Single Temperature



The CTE-1001/1002 electronic thermostats are designed for use with specific CEE/CEP/CSE/CSP-4000 series controller-actuators for controlling damper actuators and/or valves in HVAC systems. The ability to adjust minimum and maximum limits is at the thermostat rather than at the controller. They are single setpoint units for cooling and heating applications. Several mounting methods are available.

An additional output is provided for control of the optional REE series relay modules. This output is not restricted by the CTE's minimum and maximum control points. Cover construction allows for the setpoint indicator and thermometer to be either visible or concealed. Optional accessories include an insert for concealing the window, and stops to lock/restrict the setpoint adjustment(s). The CTE-1001/1002 thermostats are intended for use with the CEE/CEP/CSE/CSP-4000 series controller/actuators.

Specifications

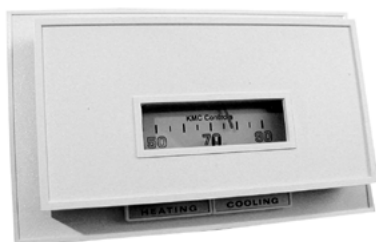
Supply Voltage	9.1 VDC (5 mA) $\pm 5\%$
Output Range	0 to 6 VDC
Range	55 to 85° F (13 to 29° C)
Proportional Band	2° F (1.1° C)
Thermostat Action	
CTE-1001	Direct Acting
CTE-1002	Reverse Acting
Cover Type	Furnished w/ window
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Models

CTE-1001-10	° F, horizontal, DA, cooling
CTE-1001-11	° C, horizontal, DA, cooling
CTE-1001-103	° F, vertical, DA, cooling
CTE-1001-113	° C, vertical, DA, cooling
CTE-1002-10	° F, horizontal, RA, heating
CTE-1002-11	° C, horizontal, RA, heating
CTE-1002-103	° F, vertical, RA, heating

Accessories

See the [CEE/CTE/TTE-1000/1100/1500/5000 Series Accessories](#) section.

**CTE-1003****Room Thermostat, Dual Temperature**

The CTE-1003 electronic thermostat is designed to be used with specific CEE/CEP/CSE/CSP-4000 series controller-actuators for controlling damper actuators and/or valves in HVAC systems. The ability to adjust minimum and maximum limits is at the thermostat rather than at the controller. This is a dual setpoint thermostat for heating and cooling applications. Several mounting methods are available.

An additional output is provided for control of the optional REE series relay modules which is not restricted by the minimum and maximum control points.

Cover construction allows for the setpoint indicator and thermometer to be either visible or concealed. Optional accessories include an insert for concealing the window, and stops to lock/restrict the setpoint adjustment(s).

Specifications

Supply Voltage	9.1 VDC $\pm 5\%$
Output Range	0 to 6 VDC
Range	55 to 85° F (13 to 29° C)
Proportional Band	2° F (1.1° C)
Thermostat Action	
Cooling	Direct Acting
Heating	Reverse Acting
Cover Type	Furnished with window
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Models

CTE-1003-10	° F, horizontal
CTE-1003-11	° C, horizontal
CTE-1003-103	° F, vertical
CTE-1003-113	° C, vertical

Accessories

See the [CEE/CTE/TTE-1000/1100/1500/5000 Series Accessories](#) section.

CTE-1004**Room Thermostat, Dual Temperature**

The CTE-1004 electronic thermostats are designed to be used with specific CEE/CEP/CSE/CSP-4000 series controller-actuators for controlling damper actuators and/or valves in HVAC systems. The ability to adjust minimum and maximum limits is at the thermostat rather than at the controller. An auxiliary flow, constant volume setpoint may be initiated manually or automatically for desired air flow across a reheat coil. It is a dual setpoint unit for cooling with reheat applications. Several mounting methods are available.

An additional output is provided for control of the optional REE series relay modules. This output is not restricted by the CTE's minimum and maximum control points.

Cover construction allows for the setpoint indicator and thermometer to be either visible or concealed. Optional accessories include an insert for concealing the window, and stops to lock/restrict the setpoint adjustment(s).

Specifications

Supply Voltage	9.1 VDC, $\pm 5\%$
Output Range	0 - 6 VDC
Range	55° - 85° F (13° - 29° C)
Proportional Band	2° F (1.1° C)
Thermostat Action	
Cooling	Direct Acting
Heating	Reverse Acting
Cover Type	Furnished w/window
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Models

CTE-1004-10	° F, horizontal
CTE-1004-11	° C, horizontal
CTE-1004-103	° F, vertical
CTE-1004-113	° C, vertical

Accessories

See the [CEE/CTE/TTE-1000/1100/1500/5000 Series Accessories](#) section.



CTE-1005/1008

Room Thermostat, Dual Temperature



The KMC CTE-1005 electronic thermostats are designed to be used with specific CEE/CEP/CSE/CSP-4000 series controller-actuators for controlling damper actuators and/or valves in HVAC systems. The ability to adjust minimum and maximum limits is at the thermostat rather than at the controller. They are dual setpoint thermostats for day/night reset applications. Several mounting methods are available.

An additional output is provided for control of the optional REE series relay modules. This output is not restricted by the CTE's minimum and maximum control points.

Cover construction allows for the setpoint indicator and thermometer to be either visible or concealed. Optional accessories include an insert for concealing the window, and stops to lock/restrict the setpoint adjustment(s).

Specifications

Supply Voltage	9.1 VDC, $\pm 5\%$
Output Range	0 to 6 VDC
Range	55 to 85° F (13 to 29° C)
Proportional Band	2° F (1.1° C)
Thermostat Action	Direct Acting
Cover Type	Furnished w/window
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Models

CTE-1005-10	° F, horizontal, night/day
CTE-1005-11	° C, horizontal, night/day

NOTE: CTE-1008s are now obsolete and only available as replacements for existing units.

Accessories

See the [CEE/CTE/TTE-1000/1100/1500/5000 Series Accessories](#) section.

CTE-1101

Room Thermostat, Single Temperature



The KMC CTE-1101 electronic thermostat is designed for use with specific CEE/CEP/CSE/CSP-4000 series controller-actuators to control damper actuators and/or valves in HVAC systems. The ability to adjust minimum and maximum limits is at the thermostat rather than at the controller. This is a single setpoint thermostat for cooling applications. Several mounting methods are available.

An additional output is provided for control of the optional REE series relay modules which is not restricted by the minimum and maximum control points.

The CTE-1101 may also be used without the CEP/CSP controller-actuator. An optional XEE-4002 power supply module can power the CTE-1101 thermostat. The CTE-1101 may then control a damper or valve that uses MEP series actuators, or may control other damper or valve actuators using the optional REE-4000 series relays.

Cover construction allows the setpoint indicator and thermometer to be either visible or concealed. Optional accessories include an insert for concealing the window, and stops to lock/restrict the setpoint adjustment(s).

Specifications

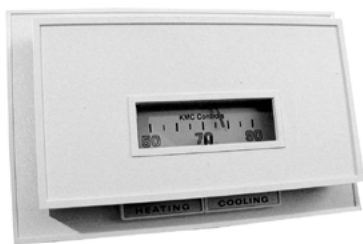
Supply Voltage	9.1 VDC $\pm 5\%$
Output Range	0 to 6 VDC
Range	55 to 85° F (13 to 29° C)
Proportional Band	2° F (1.1° C)
Thermostat Action	Direct Acting
Cover Type	Furnished w/window
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Models

CTE-1101-10	° F, horizontal
CTE-1101-11	° C, horizontal
CTE-1101-103	° F, vertical

Accessories

See the [CEE/CTE/TTE-1000/1100/1500/5000 Series Accessories](#) section.

**CTE-1103****Room Thermostat, Dual Temperature**

The KMC CTE-1103 electronic thermostat is designed for use with specific CEE/CEP/CSE/CSP-4000 series controller-actuators to control damper actuators and/or valves in HVAC systems. The ability to adjust minimum and maximum limits is at the thermostat rather than the controller. This is a dual setpoint thermostat for heating/cooling applications. Several mounting methods are available.

An additional output is provided for control of the optional REE series relay modules. This output is not restricted by the CTE's minimum and maximum control points.

The CTE-1103 may also be used without the CEP/CSP controller-actuator. An optional XEE-4002 power supply module can power the CTE-1103 thermostat. The CTE-1103 may then control dampers and/or valves which utilize MEP series actuators, or may control other damper or valve actuators utilizing the optional REE-4000 series relays.

Cover construction allows for the setpoint indicator and thermometer to be either visible or concealed. Optional accessories include an insert for concealing the window, and stops to lock/restrict the setpoint adjustment(s).

Specifications

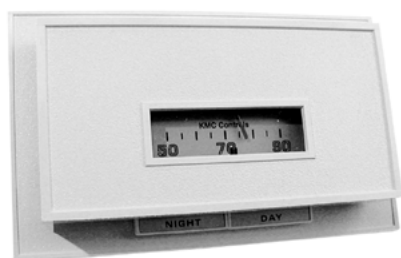
Supply Voltage	9.1 VDC $\pm 5\%$
Output Range	0 to 6 VDC
Range	55 to 85° F (13 to 29° C)
Proportional Band	2° F (1.1° C)
Thermostat Action	
Cooling	Direct Acting
Heating	Reverse Acting
Cover Type	Furnished w/window
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Models

CTE-1103-10	° F, horizontal
CTE-1103-11	° C, horizontal
CTE-1103-103	° F, vertical

Accessories

See the [CEE/CTE/TTE-1000/1100/1500/5000 Series Accessories](#) section.

CTE-1105**Room Thermostat, Dual Temperature**

The KMC CTE-1105 electronic thermostats are designed for use with specific CEE/CEP/CSE/CSP-4000 series controller-actuators to control damper actuators and/or valves in HVAC systems. The ability to adjust minimum and maximum limits is at the thermostat rather than at the controller. They are dual setpoint thermostats for day/night reset applications.

An additional output is provided for control of the optional REE series relay modules which is not restricted by the minimum and maximum control points.

Cover construction allows for the setpoint indicator and thermometer to be either visible or concealed. Optional accessories include an insert for concealing the window, and stops to lock/restrict setpoint adjustments.

Specifications

Supply Voltage	9.1 VDC $\pm 5\%$
Output Range	0 to 6 VDC
Range	55 to 85° F (13 to 29° C)
Proportional Band	2° F (1.1° C)
Thermostat Action	Direct Acting
Cover Type	Furnished w/ window
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Models

CTE-1105-10	° F, horizontal, night/day
CTE-1105-11	° C, horizontal, night/day

NOTE: CTE-1108 Reverse Acting thermostats are now obsolete.

Accessories

See the [CEE/CTE/TTE-1000/1100/1500/5000 Series Accessories](#) section.



CTE/TTE-5000 Series Accessories

This page lists accessories for the following series:

- CTE-5000
- TTE-5000
- (See CTE-5100 series accessories under the *CTE-5100 Series* section)

Mini-stat setpoint cover, single:

HPO-0031 White
HPO-0032 Light almond



Mini-stat cover, fits in cover recess:

HPO-0035 White
HPO-0036 Light almond



Backplate kit, mini-stats, fits in cover recess:

HMO-5043 White
HMO-5042 Light almond



Insulating backplate, mini-stats:

HMO-5016 White
HMO-5014 Light almond



Mini-stat backplate, UK:

HMO-5035 White
HMO-5034 Light Almond



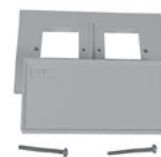
Adapter backplates, mini-stat to handy box:

HMO-5036 Vertical, light almond
HMO-5037 Vertical, white
HMO-5038 Horizontal, white
HMO-5039 Horizontal, light almond



Dual mini-stat mounting, allows 2 mini-stats to be mounted under the same cover

HMO-5011 White
HMO-5008 Light almond



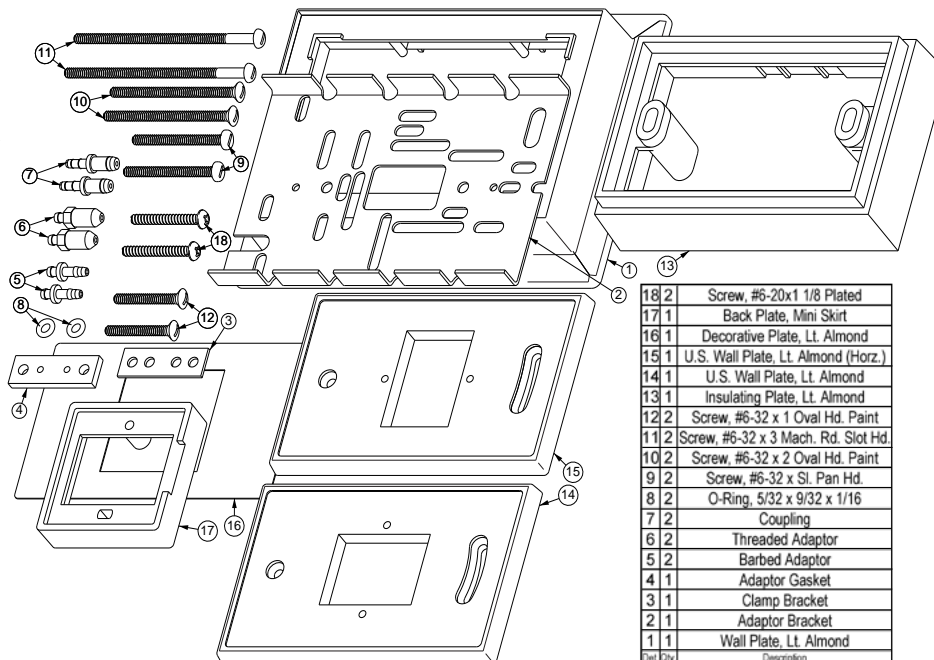
HMO-5001 Dual toggle bolt, allows mounting of wall plates to drywall



HMO-5025 Clear plastic thermostat guard cover, 6.375" W x 3.5" H x 3.25" D (162 x 89 x 82 mm)



HMO-5500 Thermostat universal upgrade kit, for replacing other thermostat brands with KMC, light almond (includes: plates, brackets, screws, O-rings, couplings, and adapters)



18	2	Screw, #6-20x1 1/8 Plated
17	1	Back Plate, Mini Skirt
16	1	Decorative Plate, Lt. Almond
15	1	U.S. Wall Plate, Lt. Almond (Horz.)
14	1	U.S. Wall Plate, Lt. Almond
13	1	Insulating Plate, Lt. Almond
12	2	Screw, #6-32 x 1 Oval Hd. Paint
11	2	Screw, #6-32 x 3 Mach. Rd. Slot Hd.
10	2	Screw, #6-32 x 2 Oval Hd. Paint
9	2	Screw, #6-32 x Sl. Pan Hd.
8	2	O-Ring, 5/32 x 9/32 x 1/16
7	2	Coupling
6	2	Threaded Adaptor
5	2	Barbed Adaptor
4	1	Adaptor Gasket
3	1	Clamp Bracket
2	1	Adaptor Bracket
1	1	Wall Plate, Lt. Almond
Qty		Description

**CTE-5001/5011****Room Thermostat, DA Cooling or RA Heating Single Temperature**

The CTE-5001/5011 thermostats are designed for use with certain CEE/CEP/CSE/CSP-4000 series controller-actuators to control dampers and/or valves in HVAC systems. These are single setpoint thermostats providing Direct Acting cooling or Reverse Acting heating selectable by jumper placement and wiring terminations.

These economical thermostats provide precise control while offering the ability to adjust the minimum and maximum control points at the thermostat rather than at the controller-actuator.

Thermostats come with a blank cover and choice of optional decorative inserts to match most decors. The setpoint adjustment and indication are exposed but can be hidden by installing the optional setpoint cover. Several mounting methods including electrical boxes, toggle bolts, or backplates are available.

Specifications

Supply Voltage	9.1 VDC $\pm 5\%$
Output Range	0 to 6 VDC
Temperature Range	54 to 90° F (12 to 32° C)
Proportional Band	3.6° F (2° C)
Thermostat Action	Direct (DA) or Reverse (RA) Acting
Cover Type	Blank with setpoint indicator
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Models

CTE-5001-10	Ash white, ° F
CTE-5001-11	Ash white, ° C
CTE-5011-10	Light almond, ° F
CTE-5011-11	Light almond, ° C

Accessories

See the [CTE/TTE-5000 Series Accessories](#) section.

CTE-5002/5012**Room Thermostat, DA Cooling w/ Reheat
Auxiliary and Deadband Adjustment**

These thermostats are designed to be used with certain CEE/CEP/CSE/CSP-4000 series controller-actuators for controlling dampers and/or valves in HVAC systems. These are single setpoint thermostats providing dual outputs for Direct Acting cooling with adjustable min/max limits, auxiliary control point and Reverse Acting heating with adjustable deadband.

These inexpensive thermostats provide precise control while offering an opportunity to adjust the control points at the thermostat rather than at the controller-actuator. The auxiliary control point can be adjusted from the thermostat as well as the deadband for the RA heating output.

Thermostats come with a blank cover and choice of optional decorative inserts to match any decor. The setpoint adjustment and indication are exposed and can be hidden by installing the optional setpoint cover. Several mounting methods using electrical boxes, toggle bolts or backplates are available.

Specifications

Supply Voltage	9.1 VDC $\pm 5\%$
Output Range	0 to 6 VDC (both outputs)
Temperature Range	54 to 90° F (12° - 32° C)
Deadband Adjustment	1 to 10° F (0.56°-5.6° C)
Proportional Band	2.5° F (1.4° C)
Thermostat Action	Cooling: Direct Acting (DA) Heating: Reverse Acting (RA)
Cover Type	Blank with setpoint indicator
Material	Ash white or light almond ABS, UL Flame retardant plastic
Size	2" (51 mm) square
Weight	1.25 oz. (35 grams)
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Models

CTE-5002-10	Ash white, ° F
CTE-5002-11	Ash white, ° C
CTE-5012-10	Light almond, ° F
CTE-5012-11	Light almond, ° C

Accessories

See the [CTE/TTE-5000 Series Accessories](#) section.



CTE-5003/5013

Room Thermostat, DA Cooling w/ Reheat Auxiliary, Deadband Adjust, & Refrigeration



The CTE-5003/5013 series are designed to be used with certain CEE/CEP/CSE/CSP-4000 series controller-actuators for controlling dampers, valves, and (with the REE-4019 relay module) refrigeration in HVAC systems. These are single setpoint thermostats providing triple outputs for Direct Acting cooling with adjustable min/max limits, auxiliary control point, Reverse Acting heating with adjustable deadband, and refrigeration staging.

These are inexpensive thermostats that provide precise control while offering a unique opportunity to adjust the control points at the thermostat rather than at the controller-actuator. The auxiliary control point can be adjusted from the thermostat as well as the deadband for the RA heating output.

Thermostats come with a blank cover and choice of optional decorative inserts to match any decor. The setpoint adjustment and indication are exposed and can be hidden by installing the optional setpoint cover. Several mounting methods are available using electrical boxes, toggle bolts, or backplates.

Specifications

Supply Voltage	9.1 VDC $\pm 5\%$
Output Range	0 to 6 VDC (all outputs)
Temperature Range	54 to 90° F (12 to 32° C)
Proportional Band	
Cooling	1.8° F (1° C)
Heating	1.8° F (1° C)
Refrigeration	3.6° F (2° C)
Deadband Adjustment	1 to 10° F (0.56 to 5.6° C)
Thermostat Action	
Cooling	Direct Acting (DA)
Heating	Reverse Acting (RA)
Refrigeration	Direct Acting (DA)
Cover Type	Blank w/setpoint indicator
Material	Ash white or light almond flame-retardant plastic
Size	2" (51 mm) square
Weight	1.25 oz. (35 grams)
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Models

CTE-5003-10	Ash white, ° F
CTE-5003-11	Ash white, ° C
CTE-5013-10	Light almond, ° F
CTE-5013-11	Light almond, ° C

Accessories

See the [CTE/TTE-5000 Series Accessories](#) section.

CTE-5006/5016

Room Thermostat, DA Cooling w/ Reheat Auxiliary and Deadband Adjustment



CTE-5006/5016 series thermostats are designed to be used with the CSP-5000 series controller-actuators for controlling dampers and/or valves in HVAC systems. These are single setpoint thermostats providing dual outputs for Direct Acting (DA) cooling with adjustable min/max limits, auxiliary control point and Reverse Acting (RA) heating with adjustable dead band.

These inexpensive thermostats provide precise control while offering a unique opportunity to adjust the control points at the thermostat rather than at the controller-actuator. The auxiliary control point, and the dead band for the RA heating, can be adjusted from the thermostat.

Thermostats come with a blank cover and choice of optional decorative inserts to match any decor. The setpoint adjustment and indication are exposed and can be hidden by installing the optional setpoint cover. Several mounting methods are available using electrical boxes, toggle bolts, or backplates.

Specifications

Supply Voltage	16 VDC $\pm 5\%$
Output Range	0 to 10 VDC (both outputs)
Temperature Range	54 to 90° F (12 to 32° C)
Proportional Band	2.5° F (1.4° C)
Deadband Adjustment	1 to 10° F (0.56 to 5.6° C)
Thermostat Action	
Cooling	Direct Acting (DA)
Heating	Reverse Acting (RA)
Cover Type	Blank w/ setpoint indicator
Material	Ash white or light almond flame-retardant plastic
Size	2" (51 mm) square
Weight	1.25 oz. (35 grams)
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Models

CTE-5006-11	Ash white, ° C
CTE-5016-10	Light almond, ° F
CTE-5016-11	Light almond, ° C

Accessories

See the [CTE/TTE-5000 Series Accessories](#) section.










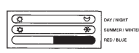
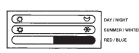
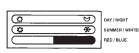


CTE-5100 Series Electronic Room Thermostat




NOTE: For more information on these accessories, see the CTC-1600 Series Thermostat Accessories section. See also the [CEE/CTE/TTE-1000/1100/1500/5000 Series Accessories](#) section.


Accessories and Repair Parts

HFO-0027	Setpoint stop strip 4 "stops" per strip	
HMO-5023	Mounting strap for mounting on hollow walls, includes 2 #6-32 screws, 2" long, "template" printed on envelope)	
Backplate kit (allows thermostat to be mounted to 2x4 handy box, includes 2 #6-32 screws, decorative matching plate):		
HMO-5024	Light almond w/ alum. trim	
HMO-5026	White w/ alum. trim	
HMO-5030	Light almond	
HMO-5031	White	
HPO-0044	Replacement thermostat cover screws	
HPO-0046	Replacement scale plate pins	
HPO-0051	Replacement cover window for thermostat (1 furnished with each cover)	
Horizontal thermostat scale plates, must be ordered separately (includes 2 each HPO-0046 scale plate pins):		
HPO-0060-10	° F	
HPO-0060-11	° C	
Vertical thermostat scale plates, must be ordered separately (2 HPO-0046 scale plate pins included):		
HPO-0061-10	° F	
HPO-0061-11	° C	
HPO-1320	Label strip, 3 labels per strip (for day/night, summer/winter or heating/cooling indication), 1 furnished with each cover	


Thermostat covers, blank:

HPO-1501	Light almond, ABS	
HPO-1502	White, ABS	
HPO-1503	Brushed aluminum	

Thermostat covers, full window:

HPO-1511	Light almond ABS	
HPO-1512	White ABS	
HPO-1513	Brushed aluminum	
HPO-1514	White metal	
HPO-1516	Light almond metal	

Thermostat covers, local indexing:

HPO-1521	Light almond ABS	
HPO-1522	White ABS	
HPO-1523	Brushed aluminum	
HPO-1526	Light almond metal	

CTE-5100 thermostats are designed for use with the CSP-5001/5002 flow controller-actuator and/or the REE-1000/4000 series auxiliary relays. Other high impedance (10K ohms or higher) controls such as MEP-5000 series actuators (except MEP-5061/5063/5065/5071/5073) and VEP series valves requiring a 0–10 VDC control circuit may be controlled via any of the CTE-5100 series thermostats. CTE-5100s are provided with limited and unlimited outputs. The limited output(s) is (are) used to provide minimum and maximum limits to a CSP-5001/5002, or impose electronic limits to an MEP-5000 series (but not MEP-5061/5063/5065/5071/5073) actuator or a VEP series valve.

Models are available for cooling, heating, cooling w/ reheat, cooling/heating changeover, day/night or night/day applications. Temperature averaging and/or overrides may be accomplished.

The scale plate assembly and a cover must be ordered separately (see Accessories section). Item shown with cover and scale plate already assembled. Thermostat and accessories styling allow the setpoint indicator and/or thermometer to be visible or concealed, setpoint adjustment locked or restricted, vertical or horizontal mounting and attractive color finishes in plastic or metal.

Specifications

Supply Voltage	16 VDC (14–20 VDC), from, for example, the XEE-5002 power supply
Output Range	0 to 10 VDC
Temperature Range	55 to 85° F (13 to 29° C)
Proportional Band	
CTE-5101/2/3/5	2° F (1.1° C) w/ limits output (T1/T2) 4° F (2.2° C) w/o limits output (T3/T4)
CTE-5104	2° F (1.1° C) w/ and w/o limits output (T1/T2/T3)
Thermostat Action	
CTE-5101	Direct Acting (DA) T1/T3
CTE-5102	Reverse Acting (RA) T2/T4
CTE-5103	Direct Acting (DA) T1/T3 Reverse Acting (RA) T2/T4
CTE-5104	Direct Acting (DA) T1/T3 Reverse Acting (RA) T2
CTE-5105	Direct Acting (DA) T1/T2/T3/T4
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: –40 to 140° F (–40 to 60° C)

Models

CTE-5101	Single setpoint; direct acting
CTE-5102	Single setpoint; reverse acting
CTE-5103	Dual setpoint; direct and reverse acting
CTE-5104	Dual setpoint; direct and reverse acting
CTE-5105	Dual setpoint; both direct acting

Thermostat Packages

CTE-5101-10:	Direct Acting
CTE-5102-10:	Reverse Acting
CTE-5103-10:	DA/RA (Cooling/Heating)
CTE-5104-10:	DA/RA (Cooling/Reheat)
CTE-5105-10:	DA/DA (Day/Night)

These packages afford the ease of ordering one part number to furnish all necessary components and mounting hardware for horizontally mounted thermostats. They contain these components:

- CTE-5100 series base
- HPO-0060-10 ° F horizontal scale plate
- HPO-1511 light almond full window ABS thermostat cover
- HMO-5030 light almond backplate kit w/ matching decorative plate
- HPO-1320 label strip



CTE-5201-16
Electronic Room Thermostat



The KMC CTE-5201 is a single setpoint, direct-acting electronic room thermostat. Use the CTE-5201 with actuators with high impedance inputs (10K ohms or higher) that require a 0–10 VDC input.

It has adjustable minimum and maximum limits. The large, LCD display with backlighting for easy viewing can display space temperature in either degrees Fahrenheit or degrees Celsius.

Connections are through a six-wire modular jack (RJ-12 connector) for quick installation.

Accessories

HMO-1161	4 x 4 inch mounting backplate, almond
HPO-0044	Replacement hex screws
HPO-1161	Gasket

Specifications

Output	Direct acting 0–10 VDC
Setpoint range	60 to 85° F (15.6 to 29.4° C)
Proportional band	Adjustable from 2 to 6° F (1.1 to 3.3° C)
Limits	Minimum and maximum limits adjustable over 0–100% of output.
Unoccupied Mode	Off or deadband
Off Mode	Output set to 0.0 volts (safety override—output cycles from 0.0 to 2.0 volts to maintain 50 to 55° F)
Deadband Mode	Integral action disabled and setpoint set to default +10° F deadband (deadband output is set midway between the minimum and maximum limits)
Temperature Offset	Adjustable $\pm 2^{\circ}$ F ($\pm 1.1^{\circ}$ C)
Integration Time	15–60 minutes (0 = none), factory setting is 30 minutes
Connector Type	Output and power supply connect to six-wire RJ-12 connector
Supply Voltage	16 VDC (14–19 VDC)
Display	Temperature continuously updated on 0.56 inch, two-character, liquid crystal display, with automatic backlight
Material	Light almond flame-resistant plastic
Temperature Sensor	
Type	10,000 ohm thermistor
Accuracy	$\pm 0.36^{\circ}$ F ($\pm 0.2^{\circ}$ C)
Environmental Limits	
Operating	34 to 125° F (1.1 to 51.6° C)
Humidity	0 to 95% RH, non-condensing
Shipping	–40 to 140° F (–40 to 60° C)



CTE-6100 Series Low/Line Voltage Thermostat



CTE-6100 Series thermostats are available in three basic models to provide low and line voltage control of fan motors, valves and relays in fan coil units and other packaged units for commercial, industrial and residential heating, ventilating and air conditioning applications.

The CTE-6100 models are available for 24, 120, 240, and 277 VAC applications requiring two-pipe heating/cooling changeover, two-pipe heating or cooling, two-pipe heating and cooling, and four-pipe heating and cooling. All models provide a three-speed fan switch for low, medium and high speed.

These thermostats may be mounted directly to a wall or fan coil units, or to a two-gang electrical handy box using the optional HMO-5044 wall plate.

Accessories

HMO-5044 Light almond backplate, 4.8" x 4.8" plate allows mounting to 2 x 4 or 4 x 4 handy boxes

Specifications

Thermostat Switch Ratings

Heating 24 VAC models 10 VA
120–277 VAC models 8 VA
Cooling 24 VAC models 10 VA
120–277 VAC models 50 VA

Fan/System Switch Ratings

120 VAC models 5.8 FLA/ 34.8 LRA
240 VAC models 4.9 FLA/ 29.4 LRA
277 VAC models 4.1 FLA/ 24.5 LRA
Pilot duty
24 VAC models 24 VA
120–277 VAC models 125 VA

Setpoint Adjustment Range

-10 models: 50° F to 90° F
-11 models: 10° C to 32° C
2° F (1.1° C) nominal

Operating Differential Sensing Element

Bimetal

Approvals

UL Listed, CUL Listed

Temperature Limits

Operating: 32 to 130° F (0 to 54° C)
Shipping: -40 to 140° F (-40 to 60° C)

Models

MODELS	50–90° F	10–30° C	Thermostat Voltage	System Switch	Fan Switch	Application		
CTE-6101	-10	-11	24 VAC	ON-OFF	HI-MED-LOW	2-pipe: heating only or cooling only; heating/cooling w/changeover switch		
CTE-6111	-10	-11	120 VAC					
CTE-6121	-10	-11	240 VAC					
CTE-6131	-10	-11	277 VAC					
CTE-6102	-10	-11	24 VAC	COOL-OFF-HEAT		HI-MED-LOW	2-pipe: heating/cooling using system switch for manual changeover	
CTE-6112	-10	-11	120 VAC					
CTE-6122	-10	-11	240 VAC					
CTE-6132	-10	-11	277 VAC					
CTE-6103	-10	-11	24 VAC	COOL-OFF-HEAT			HI-MED-LOW	4-pipe: heating/cooling using system switch for manual changeover
CTE-6113	-10	-11	120 VAC					
CTE-6123	-10	-11	240 VAC					
CTE-6133	-10	-11	277 VAC					



Transducers

SEE ALSO: The [\(Electronic\) Relays](#) section.

REE-2002 Power Supply, E-E/I Converter



The KMC REE-2002 is designed for use with THE-1101/1102 humidity transmitters. It provides the power supply for the transmitters from a 24 VAC or 24 VDC power source, and additional outputs of 0 to 10 VDC and 4 to 20 mA.

The REE-2002 may also be used to convert 0 to 5 VDC signals from building automation systems to 0 to 10 VDC or 4 to 20 mA signals.

Specifications

Supply Voltage	24 VAC +20%/–15% or 22–40 VDC
Input Power	0.5 VA
Output Capacity	0 to 10 VDC output into 1000 ohms 4 to 20 mA output into 650 ohms max. (with 24 VAC supply) or 590 ohms max. (with 24 VDC supply)
Connections	Plated screw terminals
Wire Size	14–22 AWG, stranded
Material	Flame retardant plastic
Weight	2 oz. (57 grams)
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: –40 to 140° F (–40 to 60° C)

REE-2005 Voltage to Current Converter

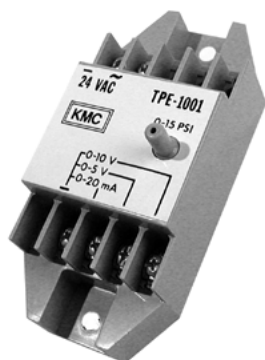


The KMC REE-2005 Relay Module is a voltage to current transducer designed for use with KMC Digital controllers, or other building automation systems, to convert a 0 to 10 VDC control output signal into a 0 to 20 mA control output signal.

The REE-2005 can be surface or panel mounted, or can be installed in an electrical handy box. The REE-2005 can be powered by either 24 VAC or 24 VDC.

Specifications

Supply Voltage	24 VAC +20%/–15% or 22–40 VDC
Input Power	0.5 VA
Output Capacity	0 to 20 mA output (24 VAC supply) into 650 ohms, max.
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping: –40 to 140° F (–40 to 60° C)

**TPE-1001****Pressure Transducer (P-E/I)**

The TPE-1001 is designed to operate as an interface device between pneumatic control components and building automation systems.

Pneumatic devices such as thermostats, transmitters, and receiver-controllers can supply the 0 to 15 psi input signal to the TPE-1001.

Any one of the three different outputs may be used to satisfy system requirements. Available outputs are 0 to 5 VDC, 0 to 10 VDC, or 0 to 20 mA. Only one output may be used per application.

It may be mounted in either a **deep** 2" x 4" handy box or on a surface such as a panel backplate. A deep box is required to accommodate the 3/16" (5 mm) diameter tubing connection.

Specifications

Supply Voltage	24 VAC, +20%, -15%
Supply Power	0.5 VA
Input Signal	0 to 15 psi (103 kPa), 30 psi maximum (207 kPa)
Output Signal	0-5 VDC, 0-10 VDC, 0-20 mA
Output Accuracy	±3%
Material	Beige flame retardant plastic
Wire Size	14 to 22 AWG recommended
Receiver Load	500 Ω maximum, 0-20 mA 1000 Ω minimum, 0-5 / 0-10 VDC
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)
Weight	2 ounces (57 grams)

TPE-1464 Series**Pressure Transducer (P-E/I)**

The KMC TPE-1464 series of pressure transducers incorporate a gauge pressure transmitter featuring low hysteresis, excellent repeatability, and long-term stability.

Up to four field-selectable input ranges are available in most models. The field selectable feature provides a single model that can be configured to cover all the input pressure ranges for any given application.

Three output ranges are field selectable, 4 to 20 mA, 0 to 5 VDC, and 0 to 10 VDC. The output signal is factory calibrated and temperature compensated for the highest start-up accuracy.

The TPE-1464 can be powered from either a 24 VAC nominal, or 12 to 30 VDC power source. TPE-1464 incorporates a rugged NEMA 4 enclosure.

Specifications

Media compatibility	17-4 pH stainless steel
Supply Voltage	24 VAC or 15 to 30 VDC
Supply Current	35 mA, maximum @ 24VDC
Output Signal	4 to 20 mA, 0 to 5 or 0 to 10 VDC, field selectable
Pressure Ranges	Field selectable, with models up to 500 psig/d; see Models
Proof Pressure	Max. 2X full scale range
Burst Pressure	Max. 5X full scale range
Accuracy	±1% full scale combined linearity, hysteresis, and repeatability. Range 4 accuracy ±2% full scale
Pressure cycles	> 100 million
Surge Damping	Normal 4-second averaging, slow 8-second averaging, switch selectable
Sensor Operating Range	-40 to 220° F (-40 to 105° C)
Temperature Compensation Error	32 to 130° F (0 to 55° C)
Long term stability	±0.25% typical (1 year)
Zero Adjust	Push-button auto-zero and digital input
Operating Environment	32 to 122° F (0 to 50° C), 10 to 90% RH, non-condensing
Fittings	1/8" NPT female
Enclosure	5" x 5" x 2.25" (127 x 127 x 57 mm); IP 54 (NEMA 4)
Shock	100 G, 11 msec, 1/2 sine
Vibration	20 G, peak 20 to 2400 Hz

Models

TPE-1464-1	0 to 10/20/50/100 psig/d pressure ranges
TPE-1464-2	0 to 20/40/100/200 psig/d pressure ranges
TPE-1464-3	0 to 50/100/250/500 psig/d pressure ranges



TPE-1474 Series

Low Pressure Transducer (P-E/I)



TPE-1474 series Low Pressure Transducers can be used to measure positive, negative, or differential pressure. Four models each offer four easily selectable pressure ranges and three selectable outputs.

The piezoresistive sensor is ideal for monitoring the pressure of air or other clean inert gases and is limited only to those media that will not attack polyetherimide, silicon, fluorosilicone, silicone, EPDM, and neoprene seals.

The units feature jumper-selectable pressure ranges and output signal options for the most flexible applications. They are suited for any application requiring a pressure monitor that provides a reliable, conditioned, and compensated signal output. Typical HVAC applications include monitoring of filter differential pressure or duct pressure. The output signal is factory-calibrated and temperature-compensated for highest startup accuracy and trouble-free operation.

The TPE-1474 can be powered from either a 12 to 28 VAC or 16.5 to 35 VDC power source. The TPE-1474 incorporates a high-impact, black ABS, plenum-rated enclosure.

The unit may be mounted in any position but typically is installed on a vertical surface with the pressure ports on the right and the cable entrance on the left. (Avoid locations where severe vibrations or excessive moisture are present.) The enclosure has a standard 1/2-inch conduit opening and may be installed with either conduit and a conduit coupler or a cable-gland-type fitting.

Key features include:

- Three jumper-selectable voltage/current outputs of 4–20 mA (2-wire), 0–5 VDC (3-wire), or 0–10 VDC (3-wire)
- Can measure positive, negative, or differential pressures
- Four jumper-selectable pressure ranges (inches water column and pascals)
- Can be powered by a range of AC or DC voltages
- Push-button auto-zero

DO NOT USE for these applications:

- Oxygen service
- Explosive/hazardous environments
- Flammable or combustible materials
- Emergency stop devices or in any other application where failure of the product could result in personal injury

Accessories

HFO-0015	Low-pressure pick-up tube, 4" long
HFO-0016	Low-pressure pick-up tube, 6" long

Specifications

Pressure Ranges	See under <i>Models</i>
Calibration Accuracy	±1% FSO (Full Scale Output)
Measurement Type	Differential (two port)
Response Time	250 ms
Stability	< ±1% FSO per year
Compensated Range	50 to 122° F (10 to 50° C)
Thermal Effects	< ±3% over compensated range
Over Pressure	20 psi or 2 x range (whichever is greater)
Zero Adjustment	Pushbutton auto-zero
Operating Conditions	32 to 140° F (0 to 60° C), 10 to 90% RH non-condensing
Media Compatibility	Limited only to those that will not attack polyetherimide, silicon, fluorosilicone, silicone, EPDM, and neoprene seals. Typically dry air or inert gas but liquid is allowed.
Power Supply (at transmitter)	12 to 28 VAC, 16.5 to 35 VDC (non-isolated half-wave rectified)
Supply Current	< 4 mA
Input Voltage Effect	Negligible over specified operating range
Protection Circuitry	Reverse voltage protected and output limited
Output Signal	4 to 20 mA (2-wire) 0 to 5 VDC (3-wire) 0 to 10 VDC (3-wire)
Current Output Drive Capability	400 ohm maximum @ 24 VDC
Voltage Output Drive Capability	2 K ohm minimum for 0 to 5 VDC signal 10 K ohm minimum for 0 to 10 VDC signal
Wiring Connections	Screw terminal block (14 to 22 AWG)
Pressure Connections	Barbed ports for 0.170" ID flexible tubing
Conduit Connection	Access hole for 1/2" NPT conduit or cable gland

Models

The models are available with the following jumper-selectable pressure ranges:

TPE-1474-21	–0.5 to +0.5", –1 to +1", 0 to 1", 0 to 2" wc
TPE-1474-22	–1.5 to +1.5", –3 to +3", 0 to 3", 0 to 6" wc
TPE-1474-23	–2.5 to +2.5", –5 to +5", 0 to 5", 0 to 10" wc
TPE-1474-24	–250 to +250", –500 to +500", 0 to 500, 0 to 1000 Pa



TPE-1476 Series

Duct Pressure Transducer (P-E/I)



TPE-1476 series Duct Pressure Transducers can be used to measure positive, negative, or differential pressure. Four models each offer four easily selectable pressure ranges and three selectable outputs. The units come with a mounted pressure probe.

The piezoresistive sensor is ideal for monitoring the pressure of air or other clean inert gases and is limited only to those media that will not attack polyetherimide, silicon, fluorosilicone, silicone, EPDM, and neoprene seals.

The units feature jumper-selectable pressure ranges and output signal options for the most flexible applications. They are suited for any application requiring a pressure monitor that provides a reliable, conditioned, and compensated signal output. Typical HVAC applications include monitoring of filter differential pressure or duct pressure. The output signal is factory-calibrated and temperature-compensated for highest startup accuracy and trouble-free operation.

The TPE-1476 can be powered from either a 12 to 28 VAC or 16.5 to 35 VDC power source. The TPE-1476 incorporates a high-impact, black ABS, plenum-rated enclosure.

The unit may be mounted in any position but typically is installed on a vertical surface with the pressure ports on the right and the cable entrance on the left. (Avoid locations where severe vibrations or excessive moisture are present.) The enclosure has a standard 1/2-inch conduit opening and may be installed with either conduit and a conduit coupler or a cable-gland-type fitting.

Key features include:

- Three jumper-selectable voltage/current outputs of 4–20 mA (2-wire), 0–5 VDC (3-wire), or 0–10 VDC (3-wire)
- Can measure positive, negative, or differential pressures
- Four jumper-selectable pressure ranges (inches water column and pascals)
- Can be powered by a range of AC or DC voltages
- Push-button auto-zero

DO NOT USE for these applications:

- Oxygen service
- Explosive/hazardous environments
- Flammable or combustible materials
- Emergency stop devices or in any other application where failure of the product could result in personal injury

Accessories

HFO-0015	Low-pressure pick-up tube, 4" long
HFO-0016	Low-pressure pick-up tube, 6" long

Specifications

Pressure Ranges	See under <i>Models</i>
Calibration Accuracy	±1% FSO (Full Scale Output)
Measurement Type	Differential (two port)
Response Time	250 ms
Stability	< ±1% FSO per year
Compensated Range	50 to 122° F (10 to 50° C)
Thermal Effects	< ±3% over compensated range
Over Pressure	20 psi or 2 x range (whichever is greater)
Zero Adjustment	Pushbutton auto-zero
Operating Conditions	32 to 140° F (0 to 60° C), 10 to 90% RH non-condensing
Media Compatibility	Limited only to those that will not attack polyetherimide, silicon, fluorosilicone, silicone, EPDM, and neoprene seals. Typically dry air or inert gas but liquid is allowed.

Power Supply (at transmitter)

12 to 28 VAC, 16.5 to 35 VDC (non-isolated half-wave rectified)

Supply Current

< 4 mA

Input Voltage Effect

Negligible over specified operating range

Protection Circuitry

Reverse voltage protected and output limited

Output Signal

4 to 20 mA (2-wire)
0 to 5 VDC (3-wire)
0 to 10 VDC (3-wire)

Current Output Drive Capability

400 ohm maximum @ 24 VDC

Voltage Output Drive Capability

2 K ohm minimum for 0 to 5 VDC signal
10 K ohm minimum for 0 to 10 VDC signal

Wiring Connections

Screw terminal block (14 to 22 AWG)

Pressure Connections

Barbed ports for 0.170" ID flexible tubing

Conduit Connection

Access hole for 1/2" NPT conduit or cable gland

Models

The models are available with the following jumper-selectable pressure ranges:

TPE-1476-21	–0.5 to +0.5", –1 to +1", 0 to 1", 0 to 2" wc
TPE-1476-22	–1.5 to +1.5", –3 to +3", 0 to 3", 0 to 6" wc
TPE-1476-23	–2.5 to +2.5", –5 to +5", 0 to 5", 0 to 10" wc
TPE-1476-24	–250 to +250", –500 to +500", 0 to 500, 0 to 1000 Pa



TPE-1483 Series
Differential Pressure Transducer (P-E/I)



The KMC TPE-1483 series of pressure transducers incorporates a Wet / Wet differential pressure transmitter featuring low hysteresis, excellent repeatability, and long-term stability.

Up to four field-selectable input ranges are available in most models. The field selectable feature provides a single model that can be configured to cover all the input pressure ranges for any given application.

Three output ranges are field selectable, 4 to 20mA, 0 to 5 VDC, and 0 to 10 VDC. The output signal is factory calibrated and temperature compensated for the highest start-up accuracy.

The TPE-1483 can be powered from either a 24 VAC nominal or 12 to 30 VDC power source. TPE-1483 incorporates a rugged NEMA 4 enclosure.

Models

The models are available with the following jumper-selectable pressure ranges:

TPE-1483-1	0 to 5/10/25/50 psig/d
TPE-1483-2	0 to 10/20/50/100 psig/d
TPE-1483-3	0 to 50/100/250/500 psig/d

Specifications

Media compatibility	17-4 PH stainless steel
Supply Voltage	24 VAC or 15 to 30 VDC
Supply Current	35 mA, maximum @ 24VDC
Output Signal	4 to 20mA, 0 to 5 or 0 to 10 VDC, field selectable
Pressure Ranges	Field selectable with models up to 500 psig/d; see Models
Proof Pressure	Max. 2X F.S. range
Burst Pressure	Max. 5X F.S. range
Accuracy	±1% F.S. combined linearity, hysteresis, and repeatability. Range 4 accuracy ±2% F.S.
Pressure cycles	> 100 million
Surge Damping	normal 4-second averaging, slow 8-second averaging, switch selectable
Sensor Operating Range	–40 to 220° F (–40 to 105° C)
Temperature Compensation Error	32 to 130° F (0 to 55° C)
Long term stability	±0.25% typical (1 year)
Zero Adjust	pushbutton auto-zero and digital input
Operating Environment	32 to 122° F (0 to 50° C), 10 to 90% RH, non-condensing
Fittings	1/8" NPT female
Enclosure	5" x 5" x 2.25" (127mm x 127mm x 57mm); IP 54 (NEMA 4)
Shock	100G, 11 mSec, 1/2 sine
Vibration	20G peak 20 to 2400 Hz



TSP-5000 Series

Air Flow Transducer-Actuators



These combination air flow transducers and actuator units are designed primarily for variable air volume terminal units controlled via Direct Digital Control (DDC) systems such as KMC's Digital System. They can be used in slave or dual duct tracking applications. Air flow is sensed by utilizing a single or multi-point differential (velocity) pressure measuring station or pitot tube. Air flow sensing is accomplished utilizing twin platinum resistance temperature detectors. Velocity measurement is maintained at 3% accuracy over the range of 0 to 3,300 feet per minute (FPM).

Each unit mounts directly to a 1/2" diameter or 3/8" square damper shaft, or a 3/8" diameter shaft (HFO-0011 shaft adapter required). Damper control is provided by an 18 degree/minute or 60 degree/minute actuator. A minimum of 50 inch-pounds of torque is provided. Both minimum and maximum stops are standard to limit the rotation. A gear disengagement feature allows positioning the damper and/or gear-train without energizing the actuator. A 10K ohm feedback potentiometer is standard on the TSP-5003/5023 (only).

Specifications

Supply Power	24 VAC, -15/+20%, 5 VA
Flow Sensor	Twin platinum resistive temperature sensors
Velocity Range	0 to 3,300 FPM (16.76 m/s) dependant upon DP pickup, tubing size/length and connections
Velocity Output	1 to 5 VDC (0-100% flow)
Output Torque	50 to 70 in-lbs. (5.7 to 7.9 N•m)
Feedback	10,000 ohm, 1/3 watt potentiometer (TSP-5003/5023 only)
Angular Rotation	0 to 95°, both end stops adjustable
Motor Timing	
TSP-5002/5003	18°/minute @ 60 Hz; 15°/minute @ 50 Hz
TSP-5022/5023	60°/minute @ 60 Hz; 50°/minute @ 50 Hz
Material	UL94-5V flame retardant polymer, black housing/white cover
Temperature Limits	Operating: 32 to 120° F (0 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)

Models

TSP-5002	2-10 VDC input, 18°/minute @ 60 Hz actuator
TSP-5022	2-10 VDC input, 60°/minute @ 60 Hz actuator
TSP-5003	Tri-state input, 18°/minute @ 60 Hz actuator
TSP-5023	Tri-state input, 60°/minute @ 60 Hz actuator

SEE ALSO: [TSP-5000/6000 Series Accessories](#) below, the [\(Electronic\) Actuators](#) section, the [\(Electronic\) Actuators Accessories and Repair Parts](#) section, and the [\(Electronic\) Controllers and Switches](#) section.

TSP-6001/6051

Air Flow Transducer-Actuators



The TSP-6001/6051s are similar to the proportional/tri-state TSP-5000 series, but the actuator is **controlled by a three-state analog signal: less than 2 VDC drives CCW, greater than 2.5 VDC drives CW, and 2.25 VDC is idle**. The TSP-6001/6051 has an on-board flow-through sensor for use with a single or multi-point differential pressure measuring station or pitot tube. The sensor utilizes twin platinum-ceramic resistance temperature sensors. Velocity measurement is maintained at 3% accuracy over the range of 0 to 3,000 feet per minute (FPM).

Models

TSP-6001	18°/minute actuator
TSP-6051	60°/minute actuator

TSP-5000/6000 Series Accessories

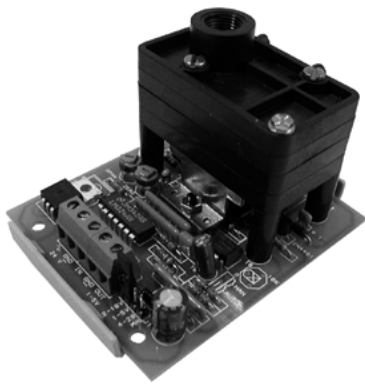
CME-1000	Rotary cam switches
HFO-0011	3/8" shaft adapter
HMO-1003	Replacement non-rotation bracket (one included)
HMO-4518	Snap-in connector for 1/2" flexible metal conduit
HMO-4520	Compression connector for plenum cable
HMO-4526	Female connector for 1/2" conduit
SSS-1000	Differential pressure flow sensors

Specifications

Supply Power	24 VAC, -15/+20%, 5 VA
Velocity Sensor	Platinum/ceramic flow-through
Velocity Range	0 to 3,000 FPM (15.24 m/s) dependant upon DP pickup, tubing size/length and connections
Velocity Output	0 to 5 VDC
Torque	50 to 70 in-lbs. (5.7 to 7.9 N•m)
Angular Rotation	0 to 95°, both end stops adjustable
Motor Drive Input	< 2.0 VDC = CCW > 2.5 VDC = CW 2.25 ±0.2 VDC = idle
Motor Timing	
TSP-6001	18°/minute @ 60 Hz; 15°/minute @ 50 Hz
TSP-6051	60°/minute @ 60 Hz; 50°/minute @ 50 Hz
Material	UL94-5V flame retardant polymer, black housing/white cover
Temperature Limits	Operating: 32 to 120° F (0 to 49° C) Shipping: -40 to 140° F (-40 to 60° C)



XEC-3001/3002/3004
E/I-P Transducer



The KMC XEC-3001 E/I-P Transducer converts an analog voltage (E) or current (I) signal into a linear pneumatic (P) output signal for accurate positioning of pneumatic damper and valve actuators used in HVAC systems.

The XEC-3001 is not a position sensitive device. It provides a direct output feedback signal for branch line pressure.

The unit can be powered by either 24 VAC or 24 VDC. Three selectable input ranges are available. The analog signal may be either 1 to 5 VDC, 2 to 10 VDC, or 4 to 20 mA and provides a 3 to 15 psig linear pneumatic output signal. A 1 to 5 VDC output feedback signal, proportional and linear to the 3 to 15 psig output signal, is provided. A gauge tap is also provided for pressure output indication. Standard 3.25" snaptrack is supplied for mounting.

Models

XEC-3001	Module only
XEC-3002	Module mounted in an HCO-1008 enclosure
XEC-3004	Module only with manual override

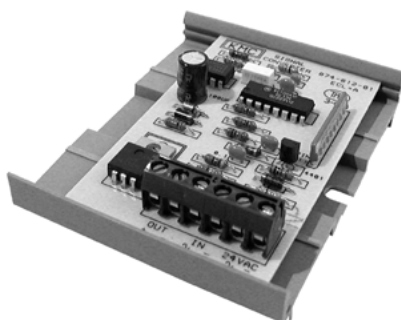
SEE ALSO: The *(Pneumatic) Relays, P-E and E-P* section, the *(Pneumatic) Controllers and Switches* section, and the *Compressed Air Accessories* section.

Specifications

Input Signals	1 to 5 VDC, 2 to 10 VDC, or 4 to 20 mA
Input Resistance	
1 to 5 VDC	100K ohms
2 to 10 VDC	200K ohms
4 to 20 mA	250 ohms
Output Signal	3–15 psig (21–103 kPa)
Output Capacity	200 scim (55 mL/s)
Main Air	
Supply	20 psig nominal (138 kPa) 30 psig maximum (207 kPa)
Consumption	28.8 scim (7.9 mL/s) @ 20 psig supply (138 kPa)
Supply Voltage	24 VAC, +20%/–15%, 1 VA, or 24 VDC, +66%/–8%, 50 mA
Adjustments	Factory set span and zero
Manual Override	Jumper selectable with potentiometer adj. for 3 to 15 psig output
Operating Characteristics	
Linearity	1% full scale
Hysteresis and repeatability	0.75% full scale
Connections	
Wiring	Screw terminals for 14–22 AWG, copper
Air	3/16" (5 mm) nipple for 1/4" (6 mm) OD polyethylene tubing. 1/8" (3 mm) female NPT for branch pressure gauge.
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	–40 to 140° F (–40 to 60° C)
Humidity	Non-condensing

Accessories

HCO-1008	Enclosure (for XEC-3001/3004)
HFO-0006	In-line control air filter, 25 microns, 3/16" nipples for 1/4" OD poly tubing
ICI-1005	2", 0-30 psi gauge

**XEE-1501****Pulse Width/Voltage Transducer**

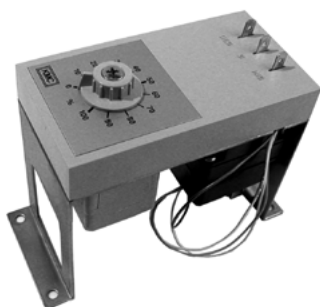
The KMC XEE-1501 Pulse Width/Voltage Transducer converts a pulse width signal into a voltage output signal. It is designed for interfacing building automation systems having pulse width modulated outputs with control devices requiring 0 to 10 VDC proportional signals.

The transducer mounts in a standard 3.25" snaptrack (supplied) and is powered by 24 VAC. The 0 to 10 VDC output signal is based on a 0 to 5 second pulse width, with 5 seconds equating to a 10 VDC output signal. The response is linear, i.e.: 2.5 second intervals would equate to a 5 VDC output signal.

On a loss of the pulsed input signal, the XEE-1501 will hold its last output for 60 seconds before resetting to 0 VDC.

Specifications

Input Signal	24 VAC; 60 Hz or 50 Hz
Pulse Width	5 seconds (60 Hz) for 100% (10 VDC) 6 seconds (50 Hz) for 100% (10 VDC).
Output Signal	0 to 10 VDC @ 15 mA.
Supply Voltage	24 VAC +20/-15%, 50/60 Hz, 0.5 VA
Accuracy	±2%
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)
Humidity	Non-condensing

YEC-1101**Motorized Pneumatic Gradual Switch**

The YEC-1101 is used as an interface between energy management systems and pneumatic final control devices. It may be driven in either direction by the application of a tri-state (floating control) 24 VAC signal to adjust the level of the pneumatic output signal between 2 to 18 psi (14 kPa to 124 kPa).

Applications include the remote positioning of control valves and damper actuators, and the reset of receiver-controllers. Visual indication is provided by the scale plate referencing the percentage of output being produced.

Specifications

Main Air Pressure	20 psig (138 kPa) normal, 30 psig maximum (207 kPa)
Output Range	2 to 18 psi (14 to 124 kPa)
Air Consumption/Capacity	28.8 scim (7.87 mL/s)
Connections	
Air	3/16" (5 mm) fittings for 1/4" (6 mm) OD polyethylene tubing
Electrical	Push-on terminals, 1/4" (6 mm) tab
Output Timing	0.32 psi/sec (2.2 kPa/sec)
Input/Supply Voltage	24 VAC +20%, -15%
Supply Power	2 VA @ 24 VAC
Materials	Flame retardant plastic
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (40 to 60° C)

Accessories

HFO-0120	Elbow fitting
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SEE ALSO: The [\(Pneumatic\) Relays, P-E and E-P](#) section, the [\(Pneumatic\) Controllers and Switches](#) section, and the [Compressed Air Accessories](#) section.



Valve Accessories and Repair Parts

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

HPO-5000 Series

Flange and Globe Valve Packing Kits

Flange Valves

HPO-5038	Graphite, 3/8" stem, flanged valves
HPO-5088	V-ring, 3/8" stem, flanged valves

NOTE: Graphite packing was used on all flanged valves prior to date code 9723 and on certain valves up to date code 9737.

For valves between date codes 9723 and 9737, packing used is determined by the brass bonnet size. For 1" diameter (14 threads per inch) brass bonnets, graphite packing was used. For 1-3/8" diameter (18 threads per inch) brass bonnets, V-ring packing was used.

V-ring packing is used on all valves since date code 9737.



Globe Valves

HPO-5013	Packing Kit, VEP-43/45 and VCP-41/42/43
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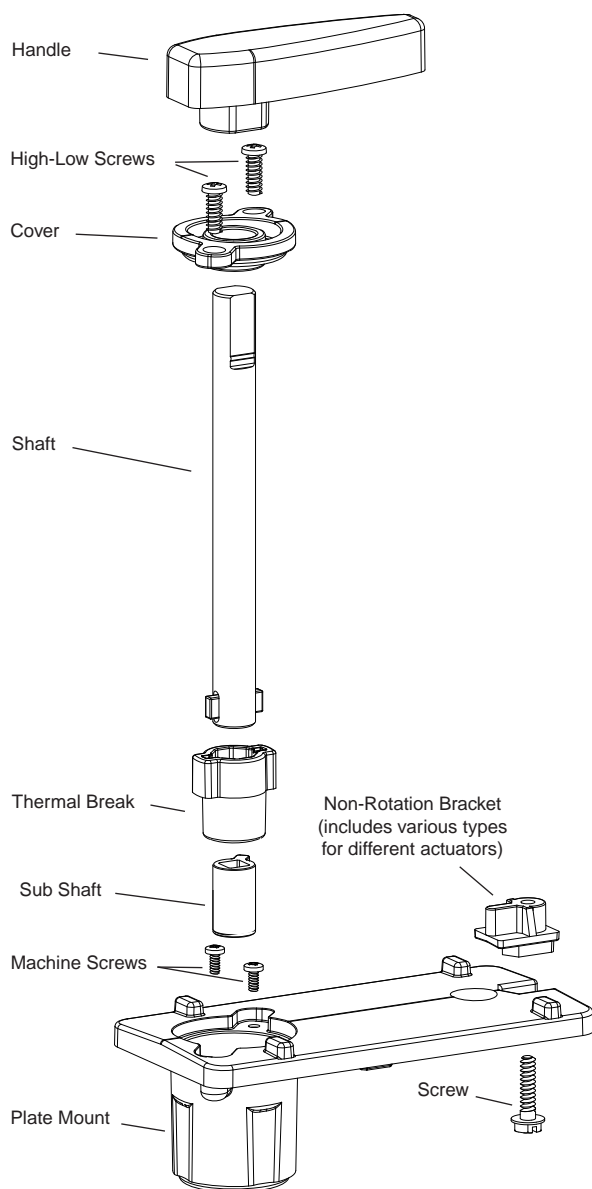
⚠ CAUTION

Using mineral oil lubricants or other incompatible substances in system fluids may damage EPDM rubber seals in valves. Before using any lubricant or additive in a water or ethylene glycol base, consult the substance manufacturer for compatibility with EPDM (Ethylene Propylene Diene Monomer).



HPO-5072

Ball Valve to Actuator Repair Kit



The KMC HPO-5072 repair kits are designed to replace linkages on VEP-43/45/83/85, VEB-43/46, and VCB-41/42/46 ball valves.

Hardware for mounting the linkage to the valve, and the actuator to the linkage, are included with the kit. The MEP-4000/5000 series or MCP-3631 series actuators must be ordered separately.

This kit can be used to repair all VCB-41/42/46 series **ball** valves.

This kit can be used to repair the following KMC **ball** valves with MEP-5000 series actuators:

VEP-43ABBxxx through VEP-43GBBxxx

VEP-45A1xxxx through VEP-45H4xxxx

VEP-83ABBxxx through VEP-83FDBxxx

VEP-85A1xxxx through VEP-85F3xxxx

VEB-43/46 series ending in DL or DH

This kit can be used to repair the following KMC **ball** valves with MEP-4000 series actuators:

VEP-43ABB7xx through VEP-43GBB7xx

VEP-45A1x7xx through VEP-45H4x7xx

VEB-43/46 series ending in CK or CF

NOTE: For obsolete HPO-5071, use HPO-5072 instead.



HPO-5200 Series

Linkage Kits for VEP-4000/5000 Globe Valves



The KMC HPO-5200 series linkage repair kits are designed to replace linkages on VEP-4000 and VEP-5000 globe valves. Kits are available for 1/2" through 2" VEP-4000 series globe valves and 2-1/2" through 6" VEP-5000 flanged valves. Hardware for mounting the linkage to the valve, and the actuator to the linkage, are included with the kit. Actuators must be ordered separately. (See also retrofit linkage kits for valves from other manufacturers on the next page.)

Models

Linkage Kits for VEP-4000 Globe Valves:

- HPO-5201 For use with MEP-5000 actuators*
 HPO-5202 For use with MEP-1200 actuators*
 *Actuators must be ordered separately.

Linkage Kits for VEP-5000 Flanged Valves (see chart):

- HPO-5205 Plastic Linkage Kit; for use with MEP-70XX**
 HPO-5207 Metal Linkage Kit; for use with MEP-77XX**
 HPO-5208 Metal Linkage Kit; for use with MEP-77XX**
 HPO-5209 Metal Linkage Kit; for use with Dual MEP-77XX**

**Actuators must be ordered separately.

Specifications

Material

HPO-5201/5202	Glass filled nylon
HPO-5205	Glass filled nylon
HPO-5207 to 5209	Cast aluminum with steel rack and pinion

Weight

HPO-5201/5202/5205	2.12 lbs. (0.96 kg)
HPO-5207 to 5209	6.12 lbs. (2.78 kg)

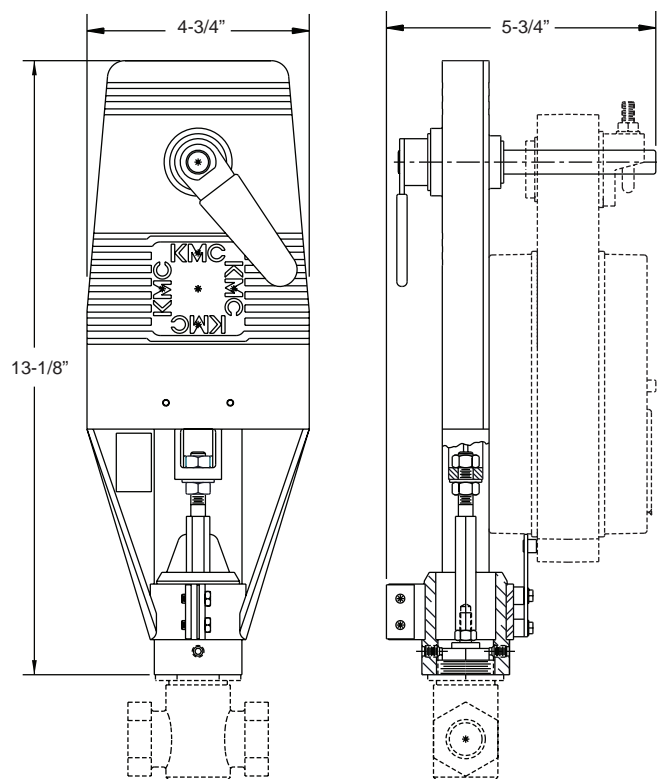
Temperature Limits

Medium	32 to 250° F (0 to 121° C)
Ambient	35 to 120° F (2 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Flanged Valve	Valve Size	Valve Lift	HPO-5205	HPO-5207	HPO-5208	HPO-5209
2-Way Single Seat (VEP-5800)	2.5"	0.75	X	X		
	3"	0.75	X	X		
	4"	1.25			X	X
	5"	1.375			X	X
	6"	1.375				X
2-Way Double Seat (VEP-5500)	2.5"	0.75	X			
	3"	0.75	X			
	4"	0.75	X			
	5"	1.25			X	
	6"	1.25			X	
3-Way Mixing (VEP-5300)	2.5"	0.75	X	X		
	3"	0.75	X	X		
	4"	1.375			X	X
	5"	1.375				X
	6"	1.375				X
3-Way Diverting (VEP-5400)	2.5"	0.75	X			
	3"	0.75	X			
	4"	0.75	X			
	5"	1.25			X	
	6"	1.375			X	



HPO-5210 Series Retrofit Globe Valve Linkage Kits



The KMC HPO-5210 series linkage kits are designed as retrofit linkage for Barber-Colman/Invensys/TAC/Robertshaw valves.

Hardware for mounting the linkage to the valve, and the actuator to the linkage, are included with the kit. The MEP-5000 or MEP-1200 series actuators must be ordered separately.

Specifications

Material	Glass filled nylon
Weight	
HPO-5201/5202/5205	2.12 lbs. (0.96 kg)
Temperature Limits	
Medium	32 to 250° F (0 to 121° C)
Ambient	35 to 120° F (2 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Retrofit Linkage for Barber-Colman/Invensys/TAC

Models (see chart)

HPO-5211	1/2" to 1-1/4", MEP-5000 series actuators
HPO-5212	1/2" to 1-1/4", MEP-1200 series
HPO-5213	1-1/2" to 2", MEP-1200 series
HPO-5214	1-1/2" to 2", MEP-1200 series, on older valves with a 1" diameter bonnet and manufactured before 01/1994

Barber-Colman Valve Models	Valve Sizes	
	1/2" to 1-1/4"	1-1/2" to 2"
VB-111-0-3-1 through VB-111-0-3-9	Use the HPO-5211 if using the MEP-5000 actuators.	Not Available
VB-921X-0-4-1 through VB-921X-0-4-11		Use the HPO-5213 or the *HPO-5214 with the MEP-1200 actuators. Close-Offs = 1-1/2" @ 47 psi 2" @ 22 psi
VB-922X-0-4-1 through VB-922X-0-4-11	Close-Offs = 1/2" & 3/4" @ 81 psi 1" @ 56 psi 1-1/4" @ 30 psi	
VB-9253-0-4-1 through VB-9253-0-4-11	OR	
VB-9263-0-4-1 through VB-9263-0-4-11		
VB-9273-0-4-1 through VB-9273-0-4-11	Use the HPO-5212 if using the MEP-1200 actuators.	
VB-9283-0-4-1 through VB-9283-0-4-11		
VB-931X-0-4-1 through VB-931X-0-4-11	Close-Offs = 1/2" & 3/4" @ 280 psi 1" @ 220 psi 1-1/4" @ 135 psi	
VB-9323-0-4-1 through VB-9323-0-4-11		
Medium temperature must not exceed 250 °F		

Retrofit Linkage for Robertshaw/Invensys/TAC

Models

HPO-5215	1/2" and 3/4" V66/V67/V68 globe valves, with MEP-5000 series actuators
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MEP Series Actuator Accessories

See the [\(Electronic\) Actuator Accessories and Repair Parts](#) section for such items as auxiliary switches, feedback potentiometers, and connection hardware.

VEP Series Valve Bodies (VFP)



Models

Two-Way Replacement Valve Bodies for VEP-11/12/15

VFP-111401	For any VEP-11/12/15-1401XX
VFP-111501	For any VEP-11/12/15-1501XX
VFP-111601	For any VEP-11/12/15-1601XX
VFP-111701	For any VEP-11/12/15-1701XX
VFP-111801	For any VEP-11/12/15-1801XX
VFP-112201	For any VEP-11/12/15-2201XX

Two-Way Replacement Valve Bodies for VEP-21/22/25

VFP-211401	For any VEP-21/22/25-1401XX
VFP-211501	For any VEP-21/22/25-1501XX
VFP-211601	For any VEP-21/22/25-1601XX
VFP-211701	For any VEP-21/22/25-1701XX

Three-Way Replacement Valve Bodies for VEP-34

VFP-342001	For any VEP-342001XX
VFP-342101	For any VEP-342101XX

Two-Way, for VEP-45 Series GLOBE Valves

VFP-4131026	1/2", 4.6 Cv
VFP-4132026	3/4", 6.9 Cv
VFP-4133026	1", 11.6 Cv
VFP-4134026	1-1/4", 18.5 Cv
VFP-4135026	1-1/2", 29.0 Cv
VFP-4136026	2", 46.4 Cv

Three-way, for VEP-43 Series GLOBE Valves

VFP-4331026	1/2", 4.6 Cv
VFP-4332026	3/4", 6.9 Cv
VFP-4333026	1", 11.6 Cv
VFP-4334026	1-1/4", 18.5 Cv
VFP-4335026	1-1/2", 29.0 Cv
VFP-4336026	2", 46.4 Cv

▲ CAUTION

Using mineral oil lubricants or other incompatible substances in system fluids may damage EPDM rubber seals in valves. Before using any lubricant or additive in a water or ethylene glycol base, consult the substance manufacturer for compatibility with EPDM (Ethylene Propylene Diene Monomer).



VEP-1x/2x/3x Series Zone Valves Accessories



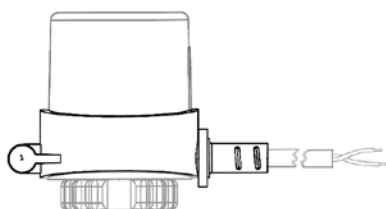
MEP-3001 24 VAC, replacement actuators, NC (fits VEP-12/22/34)



MEP-3006 24 VAC, replacement actuators, NO (fits VEP-11/21/37)



Replacement Actuators (fits VEP-15/25/34):
MEP-3010 Tri-state
MEP-3011 2–10 VDC, NC
MEP-3016 10–2 VDC, NO



HMO-4530 Conduit connector, allows use of 3/8" flexible conduit on any VEP series.



Replacement Gasket:
HPO-5017 3/4", for use on VEP-3420
HPO-5018 1", for use on VEP-3421



Bonnet Assembly (consists of stem, plug, packing, bonnet and disc):
HPO-5030 1/2" 2.0 Cv, 2-way
HPO-5031 1/2" 2.6 Cv, 2-way
HPO-5032 3/4" 2.9 Cv, 2-way
HPO-5033 3/4" 4.7 Cv, 2-way
HPO-5034 1/2" 1.7 Cv, 3-way
HPO-5035 1/2" 1.6 Cv, 2-way

**Replacement Valve Disc:**

HPO-5065 1/2" 2.0 Cv
HPO-5066 1/2" 2.6 Cv
HPO-5067 3/4" 2.9 Cv
HPO-5068 3/4" 4.7 Cv



HPO-5055 Close-off amplifier for (NC valves) VEP-12/22 and MEP-3001



HPO-5058 Replacement union nut for all 1/2" VEP/VFP series valve bodies



HPO-5059 Replacement union nipple for all 1/2" VEP series valve bodies.



MPT Nipple (converts VEP-3420/3421 to 3/4" or 1" MPT, 3 required per valve):
HPO-5026 3/4"
HPO-5027 1"



Valves, NPT (1/2" to 3")

VEP-11/12/21/22 Series Cross-Reference

See equivalent VEZ-44/42 valves.

Repair Parts (for VEP-11/12/21/22 Series Only)

HMO-4530	Flexible conduit connector
HPO-5021	3/4" union nut
HPO-5022	1" union nut
HPO-5030	1/2" bonnet assembly; 2.00 Cv
HPO-5031	1/2" bonnet assembly; 2.60 Cv
HPO-5032	3/4" bonnet assembly; 2.95 Cv
HPO-5033	3/4" bonnet assembly; 4.25 Cv
HPO-5035	1/2" bonnet assembly; 1.60 Cv
HPO-5055	Amplifier for normally closed valves
HPO-5058	1/2" union nut



HPO-5059	1/2" MPT union
HPO-5065	1/2" replacement disc; 2.00 Cv
HPO-5066	1/2" replacement disc; 2.60 Cv
HPO-5067	3/4" replacement disc; 2.95 Cv
HPO-5068	3/4" replacement disc; 4.7 Cv
MEP-3001	24 VAC normally closed actuator
MEP-3006	24 VAC normally open actuator
REE-5017	Electronic relay for modulating NC valve
REE-5024	Electronic relay for modulating NO valve

VEP-15/25 Series Cross-Reference

See equivalent VEZ-43 valves.

Repair Parts (VEP-15/25 Series Only)

HPO-5021	3/4" union nut
HPO-5022	1" union nut
HPO-5030	1/2" bonnet assembly; 2.00 Cv
HPO-5031	1/2" bonnet assembly; 2.60 Cv
HPO-5032	3/4" bonnet assembly; 2.95 Cv
HPO-5033	3/4" bonnet assembly; 4.25 Cv
HPO-5035	1/2" bonnet assembly; 1.60 Cv
HPO-5058	1/2" union nut



HPO-5059	1/2" MPT union
HPO-5065	1/2" replacement disc; 2.00 Cv
HPO-5066	1/2" replacement disc; 2.60 Cv
HPO-5067	3/4" replacement disc; 2.95 Cv
HPO-5068	3/4" replacement disc; 4.7 Cv
MEP-3010	24 VAC tri-state
MEP-3011	24 VAC, 2–10 VDC
MEP-3016	24 VAC, 10–2 VDC

VEP-3420/3421 Series Cross-Reference

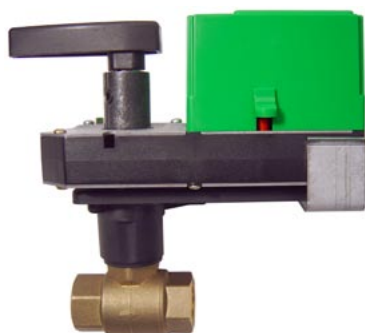
See equivalent VEZ-44 valves.

Repair Parts (VEP-3420/3421 Series Only)

HMO-4530	Flexible conduit connector for MEP-3001
HPO-5017	3/4" union gasket
HPO-5018	1" union gasket
HPO-5021	3/4" union nut
HPO-5022	1" union nut
HPO-5026	3/4" MPT compression union
HPO-5027	1" MPT compression union



HPO-5070	3/4" replacement disc
MEP-3001	24 VAC, NC, fail-safe, 2-position actuator for the VEP-34200186 and VEP-34210186
MEP-3010	24 VAC, tri-state for VEP-34200196 and VEP-34210196
MEP-3011	24 VAC, 2–10 VDC VEP-34200195 and VEP-34210195

**VEB-4303*SDL Series****2-Way, Steam-Rated, NPT, Control Ball Valves (3/4")****Specifications****Actuator****Supply Voltage** 24 VAC (+20/–15%), Class 2, 50/60 Hz**Supply Power** 6 VA/19 VA peak inrush**Control Input** 2–10 VDC**Feedback** 1–5 VDC**Aux. Power Supply** 18 VDC @ 10 mA**Fail-Safe**

Direction Switch selectable

Charge/Delay One minute delay allows full charge before normal operation

Timing 35–50 seconds, load dependent, for 95° rotation

Torque 50 in.-lbs. (5.7 N•m) minimum**Angular Rotation** 0–95°, stop adjustable, both ends**Motor Timing** 45–60 seconds, load dependent for 95° rotation**Connections** Wire clamp type; 14–22 AWG, copper**Enclosure** Flame-retardant plastic**Approvals** UL Recognized**Valve Body****Material**

Body Forged brass, two-piece construction

End Brass, 3/4" NPT

Ball Stainless steel

Stem Seals Single PTFE Seal and Dual Viton O-Rings

Ball Seals PTFE Seals with Viton O-Rings

Service Hot or chilled water, up to 50% glycol, up to 30 psi steam**Connections** Female NPT**Flow Characteristics** Equal percentage**Rangeability** 300 to 1 turn-down ratio**Leakage Rating** ANSI Class IV**Max. Close Off** 150 psi (1,034 kPa)**Max. Differential** 150 psi (1,034 kPa)**Pressure****Max. Static Pressure** 500 psi (liquid), 30 psi (steam)**Combined****Weight** 3.6 pounds (1.6 kg)**Temperature Limits**

Medium (liquid) –25° to 300° F (–31° to 149° C)

Operating 0 to 120° F (–18 to 49° C)

Shipping –40 to 140° F (–40 to 60° C)

These two-way, 3/4" NPT, ball valves are designed for the control of hot or chilled water in HVAC applications. They can also control low-pressure (up to 30 psi) steam applications. The valves, with stainless-steel balls, produce equal percentage flow, allowing the heat output at the coil to be linear when compared to the open area of the ball.

The MEP-5372 proportional actuators may be controlled via a 2–10 VDC control signal from a thermostat, controller, or building automation system. Actuators are factory-calibrated for a 2–10 VDC input signal (or 4–20 mA with an external 500 ohm resistor) and 90° clockwise rotation. Counterclockwise rotation is obtained by simply toggling a switch.

A 1–5 VDC feedback voltage output, proportional to the control signal, is provided. This feedback can be used for remote indication of valve position. An 18 VDC auxiliary power supply output is provided to power CTE-5100 series thermostats or other system control devices. An optional single or double auxiliary switch can be field-installed.

Capacitor-driven fail-safe provides efficient operation with switch-selectable fail direction. A gear disengagement button allows manual positioning of the valve without energizing the actuator.

NOTE: If a different MEP-4000/5000 series actuator is desired (rather than the standard MEP-5372), order the VFB-4303_SX valve body and the actuator separately.

Models

Valve Model	Cv	Replacement Valve Body
VEB-4303XSDL	2.9	VFB-4303XSX*
VEB-4303YSDL	5.3	VFB-4303YSX*
VEB-4303ZSDL	11	VFB-4303ZSX*

*To use an MEP-4000 series actuator instead of the MEP-5372, order an VFB-4303_SX valve body and mount the MEP-4000 series actuator on it.

Accessories and Repair Parts

CME-1002	Single auxiliary switch
CME-1004	Dual auxiliary switch
HMO-4518	Snap-in connector for 1/2" flexible metal conduit
HMO-4520	Compression connector for plenum cable
HMO-4526	Female connector for 1/2" conduit
HPO-5072	Ball valve to actuator repair kit
MEP-5372	Replacement proportional, fail-safe actuator
*VFB-4303_SX	Replacement valve body (includes non-rotation brackets for both MEP-4000 and MEP-5000 series actuators) — see the Models section for Cv (X, Y, or Z)

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).



VEB-43 Series

Two-Way, NPT, Control BALL Valves (1/2" to 3")

MEP-4002
ActuatorMEP-5372/5373
ActuatorWith
MEP-4003
Actuator
Installed

VEB-43 (formerly VEP-45) series, two-way, NPT, ball valves are designed for the control of hot or chilled water in HVAC applications. Valves range in size from 1/2 to 3 inches and feature an optimizing insert (except for indicated models), which reduces the Cv and characterizes the ball opening for equal percentage flow characteristics.

The VEB-43 includes a field-repairable blowout-proof stem and leak-proof shut-off. The reduced torque seals and O-rings eliminate the need for high torque actuators. KMC's low-torque MEP-4000/5000 series actuators work on all valve sizes. Actuators include a choice of tri-state (floating) or proportional inputs and choice of fail-safe (with switch-selectable direction) or non-fail-safe.

Models

VEB-43 **YYY B ZZ****Actuator**

CK: 0–10 VDC (MEP-4002)

CF: Tri-state (MEP-4003)

DL: Fail-safe, 2–10 VDC (MEP-5372)

DH: Fail-safe, tri-state (MEP-5373)

Size/Cv02B: 1/2" / 0.38 Cv^{FD}02D: 1/2" / 0.68 Cv^{FD}02F: 1/2" / 1.3 Cv^{FD}02H: 1/2" / 2.6 Cv^{FD}

02K: 1/2" / 4.7 Cv

02M: 1/2" / 11.7 Cv^{FD*}03G: 3/4" / 2.4 Cv^{FD}03K: 3/4" / 4.3 Cv^{FD}

03N: 3/4" / 14.7 Cv*

03L: 3/4" / 10.1 Cv^{FD}04J: 1" / 9.0 Cv^{FD}04Q: 1" / 28.4 Cv^{FD*}

04M: 1" / 15.3 Cv

05F: 1-1/4" / 14.9 Cv^{FD}

05L: 1-1/4" / 41.1 Cv*

05K: 1-1/4" / 36.5 Cv

06D: 1-1/2" / 22.8 Cv

06J: 1-1/2" / 73.9 Cv*

06G: 1-1/2" / 41.3 Cv

08D: 2" / 41.7 Cv

08M: 2" / 108.0 Cv^{FD*}

08G: 2" / 71.1 Cv

10C: 2-1/2" / 55.0 Cv

10D: 2-1/2" / 72.0 Cv

10G: 2-1/2" / 101.0 Cv

12C: 3" / 82.0 Cv

12D: 3" / 124.0 Cv

^{FD}"Fast Delivery" stocked items have a delivery time of approximately five business days. For all others, call for delivery time.

* Full-port, no optimizer insert

Specifications

Service	Hot or chilled water, up to 50% glycol
Connections	Female NPT
Body Rating	360 psi
Max. Close Off	1/2" to 1", 130 psi (896 kPa) 1-1/4" to 3", 100 psi (689 kPa)
Max. Differential Pressure	Same values as Max. Close Off (see above)
Flow Characteristics	Equal percentage (with optimizer insert)
Rangeability	500 to 1
Leakage Rating	ANSI Class IV (0.01% of Cv)
Material	
Body	Forged brass ASTM B283
Stem	Brass
Ball	Nickel-plated brass
Flow inserts	Glass filled polymer
Stem Seals	EPDM O-rings
Ball Seals	Teflon seals w/ EPDM O-rings
Temperature Limits	
Medium	–22 to 250° F (–30 to 121° C)
Operating	0 to 120° F (–18 to 49° C)
Shipping	–40 to 140° F (–40 to 60° C)
Actuators	Refer to the relevant MEP actuator section for more details
MEP-4002	40 in-lbs., 0–10 VDC
MEP-4003	40 in-lbs., tri-state
MEP-5372	50 in-lbs., 2–10 VDC, fail-safe
MEP-5373	50 in-lbs., tri-state, fail-safe

Accessories and Repair Parts

With MEP-5372/5373 Actuators (Only)

CME-1002	Single auxiliary switch
CME-1004	Dual auxiliary switch
HMO-4518	Snap-in connector for 1/2" flexible metal conduit
HMO-4520	Compression connector for plenum cable
HMO-4526	Female connector for 1/2" conduit

With All Actuators

HPO-5072	Ball valve to actuator repair kit
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To select a **valve body and linkage only** (and attach your own MEP-4000/5000 series actuator), specify VFB-43 **YYY BX** (e.g., VFB-4305LBX) with **YYY** the appropriate size and Cv (includes non-rotation brackets for both types of actuators).



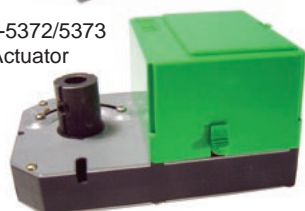
VEB-46 Series

Three-Way, Mixing or Diverting, NPT, Control BALL Valves (1/2" to 2-1/2")

MEP-4003
Actuator



MEP-5372/5373
Actuator



With
MEP-4002
Actuator
Installed



The VEB-46 Series, 3-way, mixing or diverting, NPT control ball valves are designed for the control of hot or chilled water in HVAC applications. Valves range in size from 1/2 to 2-1/2 inches and most feature an optimizing insert, which reduces and characterizes the ball opening for lower Cv ratings similar to globe valves. The body design also provides a standard "T" pattern to simplify installation.

The VEB-46 includes a field-repairable blowout-proof stem and leak-proof shut-off. The reduced torque seals and O-rings eliminate the need for high torque actuators. The VEP-43 is designed to work with KMC's low-torque, MEP-4000/5000 series actuators on all valve sizes. Actuators include a choice of tri-state (floating) or proportional inputs and choice of fail-safe (with switch-selectable direction) or non-fail-safe.

Models

VEB-46 YYY B ZZ

Actuator

CK: 0–10 VDC (MEP-4002)
CF: Tri-state (MEP-4003)
DL: Fail-safe, 2–10 VDC (MEP-5372)
DH: Fail-safe, tri-state (MEP-5373)

Size/Cv

02C: 1/2" / 0.6 Cv^{FD}
02E: 1/2" / 1.0 Cv^{FD}
02G: 1/2" / 2.4 Cv^{FD}
02J: 1/2" / 4.3 Cv^{FD}
02L: 1/2" / 8.0 Cv
03G: 3/4" / 2.4 Cv
03J: 3/4" / 3.8 Cv
03M: 3/4" / 11.0 Cv^{FD*}
04H: 1" / 8.6 Cv
04N: 1" / 22.3 Cv
05E: 1-1/4" / 12.7 Cv
05J: 1-1/4" / 34.1 Cv*
06E: 1-1/2" / 23.5 Cv
06H: 1-1/2" / 61.1 Cv
08B: 2" / 38.2 Cv
08N: 2" / 108.5 Cv
10E: 2-1/2" / 74.1 Cv
10F: 2-1/2" / 99.5 Cv*

^{FD}"Fast Delivery" stocked items have a delivery time of approximately five business days. For all others, call for delivery time.

*Full-port, no optimizer insert

SEE ALSO: [\(Electronic\) Actuators Accessories](#) section, as well as [Valve \(Three-Way\) Application Guide](#), [Valve Sizing Guide](#), and [Valve Effective Cv with Increased Pipe Size](#) in the [Reference](#) section.

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

Specifications

Service	Hot or chilled water, up to 50% glycol
Connections	Female NPT
Body Rating	360 psi (2482 kPa)
Max. Close-Off	1/2 to 1" = 50 psi (345 kPa); 1-1/4 to 2-1/2" = 40 psi (276 kPa)
Max. Differential Pressure	Same values as Max. Close Off (see above)
Flow Characteristics	Equal percentage (with optimizer insert)
Rangeability	500 to 1
Leakage Rating	ANSI Class IV (0.01% of Cv)
Material	
Body	Forged brass ASTM B283
Stem	Brass
Ball	Nickel plated brass
Flow inserts	Glass filled polymer
Stem Seals	EPDM O-rings
Ball Seals	Teflon seals w/ EPDM O-rings
Temperature Limits	
Medium	–22 to 250° F (–30 to 121° C)
Ambient	0 to 120° F (–18 to 49° C)
Shipping	–40 to 140° F (–40 to 60° C)
Actuators	Refer to the relevant MEP actuator section for more details
MEP-4002	40 in-lbs., 0–10 VDC
MEP-4003	40 in-lbs., tri-state
MEP-5372	50 in-lbs., 2–10 VDC, fail-safe
MEP-5373	50 in-lbs., tri-state, fail-safe

Accessories and Repair Parts

With MEP-5372/5373 Actuators (Only)

CME-1002	Single auxiliary switch
CME-1004	Dual auxiliary switch
HMO-4518	Snap-in connector for 1/2" flexible metal conduit
HMO-4520	Compression connector for plenum cable
HMO-4526	Female connector for 1/2" conduit

With All Actuators

HPO-5072	Ball valve to actuator repair kit
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To select a **valve body and linkage only** (and attach your own MEP-4000/5000 series actuator), specify VFB-46 YYY BX (e.g., VFB-4605JBX) with YYY the appropriate size and Cv (includes non-rotation brackets for both types of actuators).



VEG-43 Series

Two-Way, NPT, Control Globe Valves (1/2" to 2")



With
MEP-4801/4802
Actuator

With
MEP-5372/5373
Actuator

With
MEP-7200 Series
Actuator

Specifications

Action	Stem up to open; full CCW
Rangeability	30 to 1
Body Rating	250 psi (1724 kPa)
Valve Sizes	1/2" through 2" NPT
Body Type	2-way, single-seated, NPT female connections
Flow Characteristics	Equal percentage
Sizes & Cv Ratings	1/2" = 4.6; 3/4" = 6.9; 1" = 11.6; 1-1/4" = 18.5; 1-1/2" = 29.0; 2" = 46.4
Leakage Rating	ANSI Class IV (0.01% of Cv)
Steam Rating	15.3 psig (105 kPa)
Actuators	See Models section and respective actuator data sheet
Material	
Valve	Bronze body and seat; 303 stainless-steel stem; brass plug w/ EPM discs; EPM V-ring type, self-adjusting packing
Linkage	Glass-filled nylon; black
Temperature Limits	
Medium	35° to 250° F (2° to 121° C)
Ambient	35° to 120° F (2° to 49° C)
Shipping	-40° to 140° F (-40° to 60° C)

Accessories and Repair Parts

With All Actuators

HPO-5013	Replacement packing kit
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With MEP-5372/5373 Actuators (Only)

CME-1002	Single auxiliary switch
CME-1004	Dual auxiliary switch
HMO-4518	Snap-in connector for 1/2" flexible metal conduit
HMO-4520	Compression connector for plenum cable
HMO-4526	Female connector for 1/2" conduit

With MEP-72xx Actuators (Only)

CME-7001	Rotary auxiliary cam switch, single
CME-7002	Rotary auxiliary cam switch, double

The electronic KMC VEG-43 series control globe valves are two-way, straight-through valves for control of hot water, chilled water, or low pressure steam. Valves are single-seated and range in size from 1/2" to 2" with equal percentage flow characteristics. Self-adjusting packing and stainless-steel stems make these valves ideal for many applications.

These control valves use KMC ControlSet actuators. An optional "fail-safe" feature allows failure to an open or closed position upon loss of 24 VAC supply. A gear disengagement feature allows positioning of the valve stem/plug without energizing the actuator. These valves meet ANSI Class IV specifications.

Models

Model #		Size/Cv	Close-Off (psi)	Actuator	Weight (lbs.)
VEG-4302JR	EF	1/2"/4.6	190	MEP-4801	5.9
	EK	1/2"/4.6	190	MEP-4802	5.9
	DH	1/2"/4.6	148	MEP-5373	7.3
	DL	1/2"/4.6	148	MEP-5372	7.3
VEG-4303DR	EF	3/4"/6.9	190	MEP-4801	6
	EK	3/4"/6.9	190	MEP-4802	6
	DH	3/4"/6.9	148	MEP-5373	7.4
	DL	3/4"/6.9	148	MEP-5372	7.4
VEG-4304CR	FF	1"/11.6	222	MEP-7201	10.3
	FK	1"/11.6	222	MEP-7202	10.3
	FH	1"/11.6	222	MEP-7251	10.8
	FL	1"/11.6	222	MEP-7252	10.8
VEG-4305AR	FF	1-1/4"/18.5	148	MEP-7201	11.2
	FK	1-1/4"/18.5	148	MEP-7202	11.2
	FH	1-1/4"/18.5	148	MEP-7251	11.7
	FL	1-1/4"/18.5	148	MEP-7252	11.7
VEG-4306AR	FF	1-1/2"/29.0	95	MEP-7201	13.3
	FK	1-1/2"/29.0	95	MEP-7202	13.3
	FH	1-1/2"/29.0	95	MEP-7251	13.8
	FL	1-1/2"/29.0	95	MEP-7252	13.8
VEG-4308AR	FF	2"/46.4	63	MEP-7201	15.7
	FK	2"/46.4	63	MEP-7202	15.7
	FH	2"/46.4	63	MEP-7251	16.2
	FL	2"/46.4	63	MEP-7252	16.2

SEE ALSO: [Valve \(Three-Way\) Application Guide](#), [Valve Sizing Guide](#), and [Valve Effective Cv with Increased Pipe Size](#) in the [Reference](#) section.



VEG-45 Series

Three-Way, NPT, Control Globe Valves (1/2" to 2")

With
MEP-7200 Series
ActuatorWith
MEP-5372/5373
ActuatorWith
MEP-4801/4802
Actuator

Specifications

Action	Three-way mixing
Rangeability	30 to 1
Body Rating	250 psi (1724 kPa)
Valve Sizes	1/2" through 2" NPT
Body Type	3-way mixing, female NPT inlets and outlet
Flow Characteristics	Linear
Sizes & Cv Ratings	1/2" = 4.6; 3/4" = 6.9; 1" = 11.6; 1-1/4" = 18.5; 1-1/2" = 29.0; 2" = 46.4
Leakage Rating	ANSI Class IV (0.01% of Cv)
Actuators	See Models section and respective actuator section
Material	
Valve	Bronze body and seat; 303 stainless-steel stem; brass plug w/ EPM discs; EPM V-ring type, self-adjusting packing
Linkage	Glass-filled nylon; black
Temperature Limits	
Medium	35° to 250° F (2° to 121° C)
Ambient	35° to 120° F (2° to 49° C)
Shipping	-40° to 140° F (-40° to 60° C)

Accessories and Repair Parts

With All Actuators

HPO-5013	Replacement packing kit
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With MEP-5372/5373 Actuators (Only)

CME-1002	Single auxiliary switch
CME-1004	Dual auxiliary switch
HMO-4518	Snap-in connector for 1/2" flexible metal conduit
HMO-4520	Compression connector for plenum cable
HMO-4526	Female connector for 1/2" conduit

With MEP-72xx Actuators (Only)

CME-7001	Rotary auxiliary cam switch, single
CME-7002	Rotary auxiliary cam switch, double

The electronic KMC VEG-45 series control globe valves are three-way, mixing valves for control of hot or chilled water. Valves range in size from 1/2" to 2" with linear flow characteristics. Self-adjusting packing and stainless-steel stems make these valves ideal for many applications.

These control valves utilize KMC ControlSet actuators. An optional "fail-safe" feature allows failure to either inlet upon loss of 24 VAC supply. A gear disengagement feature allows positioning of the valve stem/plug without energizing the actuator. These valves meet ANSI Class IV specifications.

Models

Model #		Size/Cv	Close-Off (psi)	Actuator	Weight (lbs.)
VEG-4502JR	EF	1/2"/4.6	190	MEP-4801	5.9
	EK	1/2"/4.6	190	MEP-4802	5.9
	DH	1/2"/4.6	148	MEP-5373	7.3
	DL	1/2"/4.6	148	MEP-5372	7.3
VEG-4503DR	EF	3/4"/6.9	190	MEP-4801	6
	EK	3/4"/6.9	190	MEP-4802	6
	DH	3/4"/6.9	148	MEP-5373	7.4
	DL	3/4"/6.9	148	MEP-5372	7.4
VEG-4504CR	FF	1"/11.6	222	MEP-7201	10.3
	FK	1"/11.6	222	MEP-7202	10.3
	FH	1"/11.6	222	MEP-7251	10.8
	FL	1"/11.6	222	MEP-7252	10.8
VEG-4505AR	FF	1-1/4"/18.5	148	MEP-7201	11.2
	FK	1-1/4"/18.5	148	MEP-7202	11.2
	FH	1-1/4"/18.5	148	MEP-7251	11.7
	FL	1-1/4"/18.5	148	MEP-7252	11.7
VEG-4506AR	FF	1-1/2"/29.0	95	MEP-7201	13.3
	FK	1-1/2"/29.0	95	MEP-7202	13.3
	FH	1-1/2"/29.0	95	MEP-7251	13.8
	FL	1-1/2"/29.0	95	MEP-7252	13.8
VEG-4508AR	FF	2"/46.4	63	MEP-7201	15.7
	FK	2"/46.4	63	MEP-7202	15.7
	FH	2"/46.4	63	MEP-7251	16.2
	FL	2"/46.4	63	MEP-7252	16.2

⚠ CAUTION

Using mineral oil lubricants or other incompatible substances in system fluids may damage EPDM rubber seals in valves. Before using any lubricant or additive in a water or ethylene glycol base, consult the substance manufacturer for compatibility with EPDM (Ethylene Propylene Diene Monomer).



VEP-43 Series Three-Way, NPT, Control BALL Valves Cross-Reference

See equivalent VEB-46 valves.

VEP-43 Series, Three-Way, Mixing, Control GLOBE Valves Cross-Reference

See equivalent VEG-45 globe valve.

VEP-45 Series Two-Way, NPT, Control BALL Valves Cross-Reference

See equivalent VEB-43 valves.

VEP-45 Series, Two-Way, Control GLOBE Valves Cross-Reference

See equivalent VEG-43 globe valve.

VEP-83 Series, Three-Way, Sweat, Control Ball Valves Cross-Reference

See equivalent VEB-45 ball valve and use a threaded adapter.

VEP-85 Series, Two-Way, Sweat, Control Ball Valves Cross-Reference

See equivalent VEB-43 ball valve and use a threaded adapter.

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

SEE ALSO: [\(Electronic\) Actuators Accessories](#) section, as well as [Valve \(Three-Way\) Application Guide](#), [Valve Sizing Guide](#), and [Valve Effective Cv with Increased Pipe Size](#) in the [Reference](#) section.

⚠ CAUTION

Using mineral oil lubricants or other incompatible substances in system fluids may damage EPDM rubber seals in valves. Before using any lubricant or additive in a water or ethylene glycol base, consult the substance manufacturer for compatibility with EPDM (Ethylene Propylene Diene Monomer).



VEV-43 Series

Pressure-Independent, 2-Way, NPT, Control Ball Valves (1/2–2")



The VEV-43 series pressure-independent, two-way, NPT, control ball valves provide precise control of hot or chilled water in HVAC applications—in spite of fluid pressure fluctuations or reduced load conditions. They also eliminate separate balancing valves and the balancing process. Valves range in size from 1/2 to 2 inches.

The valve's dual Teflon ball and stem seals and an EPDM O-ring provide leak-proof shut off and meet both "packed" and "packless" construction specifications. The reduced torque seals and O-rings eliminate the need for high torque actuators. The VEV-43 is designed to work with KMC's low-torque MEP-4000/5000 series actuators on all valve sizes with various control and fail-safe options.

Specifications

Actuators	(Refer to specific MEP actuator sections for more details)
MEP-4002	0–10 VDC, 40 in.-lbs.
MEP-4003	Tri-state, 40 in.-lbs.
MEP-5372	Fail-safe, 2–10 VDC, 50 in.-lbs.
MEP-5373	Fail-safe, tri-state, 50 in.-lbs.
Material	
Body	Forged brass ASTM B584
Stem	Brass
Ball	Nickel plated brass
Flow inserts	Glass filled polymer
Cartridge	Poly-oxy methaline and hydrogenated acrylonitrile-butadiene rubber
Stem Seals	EPDM O-rings
Ball Seals	Teflon seals w/ EPDM O-rings
Service	Hot or chilled water, up to 50% glycol
Connections	Female NPT
Body Rating	360 psi (2,482 kPa)
Flow Characteristics	Equal percentage (with optimizer insert)
PSID Control Range	2.9 to 60 psid in 1–2" valves, 5.8 to 60 psid in 1/2–3/4" valves
Rangeability	500 to 1
Max. Close Off	100 psi (690 kPa)
Leakage	ANSI Class III (0.1% of rated valve capacity)
Temperature Limits	
Medium	–22 to 250° F (–30 to 121° C)
Ambient	0 to 120° F (–18 to 49° C)
Shipping	–40 to 140° F (–40 to 60° C)

Accessories and Repair Parts

With All Actuators	
HPO-5072	Ball valve to actuator repair kit
With MEP-5372/5373 Actuators (Only)	
CME-1002	Single auxiliary switch
CME-1004	Dual auxiliary switch
HMO-4518	Snap-in connector for 1/2" flexible metal conduit
HMO-4520	Compression connector for plenum cable
HMO-4526	Female connector for 1/2" conduit

Models

VEV-43 XXXX YY

Actuators

CK: 0–10 VDC (MEP-4002)
 CF: Tri-state (MEP-4003)
 DL: Fail-safe, 2–10 VDC (MEP-5372)
 DH: Fail-safe, tri-state (MEP-5373)

Pipe Size / High Limit Flow Rate (±5%)*

02A3: 1/2" / 0.5 gpm	04M2: 1" / 20.0 gpm
02B3: 1/2" / 1.0 gpm	05M2: 1-1/4" / 20.0 gpm
02C3: 1/2" / 1.5 gpm	05N2: 1-1/4" / 25.0 gpm
02D3: 1/2" / 2.5 gpm	06N2: 1-1/2" / 25.0 gpm
02E3: 1/2" / 3.5 gpm	06P2: 1-1/2" / 30.0 gpm
02F3: 1/2" / 4.5 gpm	06Q2: 1-1/2" / 35.0 gpm
02G3: 1/2" / 5.5 gpm	08Q2: 2" / 35.0 gpm
03G3: 3/4" / 5.5 gpm	08R2: 2" / 40.0 gpm
03H3: 3/4" / 6.5 gpm	08S2: 2" / 45.0 gpm
03J3: 3/4" / 7.5 gpm	08T2: 2" / 50.0 gpm
04K2: 1" / 10.0 gpm	08U2: 2" / 55.0 gpm
04L2: 1" / 15.0 gpm	

*NOTE: To size the valve, select a high limit flow rate that is equal to or greater than the required flow rate. The psid control ranges for these valves are:

XXX2 = 2.9 to 60 psid (1" through 2" pipes)

XXX3 = 5.8 to 60 psid (1/2" and 3/4" pipes)

NOTE: To select a **valve body and linkage only** (and attach your own MEP-4000 or MEP-5000 series actuator), specify VEV-43 XXXX Z with Z = C for MEP-4000s and Z = D for MEP-5000s (e.g., VEV-4302A3C).

SEE ALSO: [\(Electronic\) Actuators Accessories](#) section, as well as [Valve \(Three-Way\) Application Guide](#), [Valve Sizing Guide](#), and [Valve Effective Cv with Increased Pipe Size](#) in the [Reference](#) section.



VEZ-41/42/43 Series

2-Way, NPT, Zone Control Valves (1/2 to 1")



With 2-Position Fail-Safe Actuator



With Tri-State or Proportional Actuator



Models

VEZ-4 X YYY MB Z

Actuator

- A: 10-0 VDC (closed-open) Proportional (MEP-3516)
 B: 0-10 VDC (closed-open) Proportional (MEP-3511)
 F: Tri-State, 24 VAC, Floating (MEP-3510)
 M: NO, 2-pos., 24 VAC, Spring Return (MEP-3503)
 N: NC, 2-pos., 24 VAC, Spring Return (MEP-3501)
 P: NO, 2-pos., 120 VAC, Spring Return (MEP-3504)
 Q: NC, 2-pos., 120 VAC, Spring Return (MEP-3502)
 (NOTE: Actuators "A," "B," and "F" are fail-in-place)

Size/Cv

- 02A: 1/2"; 1.0 Cv
 02B: 1/2"; 2.5 Cv
 02C: 1/2"; 4.0 Cv
 03A: 3/4"; 4.1 Cv
 04A: 1"; 7.0 Cv

Control Type

- 1: Normally Open (actuator "M" or "P" only)
 2: Normally Closed (actuator "N" or "Q" only)
 3: Fail in Place (actuator "A," "B," or "F" only)

These globe zone control valves are designed to regulate the flow of hot or chilled water to such applications as VAV terminal unit reheat coils, fan coil units, and induction units. The compact design of these units allows easy installation within small enclosures.

Valve bodies, available in 1/2 to 1" line sizes, are all normally open. The actuator determines the fail position. Actuators have position indication and manual override. Replacement actuators can be installed on the valve bodies without tools.

Choice of tri-state/floating or proportional fail-in-place or two-position (NO or NC) spring-return fail-safe:

- Spring-return fail-safe actuators feature easy manual override, visual position indication, UL listing for plenum installations, and heat-resistant lead wires
- Non-fail-safe actuators feature manual override (w/ 3 mm hex wrench), visual position indication, and are CE compliant and UL listed

Specifications

Valve Body

Service	Hot or chilled water, up to 50% glycol
Connections	Female NPT
Seat Style	Metal to metal
Valve Body Rating	ANSI Class 125
Max. Inlet Pressure	125 psig (862 kPa)
Max. Close-Off	1/2 to 3/4" = 44 psi (303 kPa); 1" = 22 psi (152 kPa)

Close-Off Ratings According to ANSI/FCI 70-2

Leakage Rating ANSI Class III

Flow Characteristics Linear

Material

Body	Brass
Body Trim	Brass
Stem	Stainless steel ASTM A582 Type 303
Packing	Ethylene propylene O ring

Actuators

All	24 in.-lbs. (105 N•m) torque
Proportional	24 VAC, 50/60 Hz, 2.5 VA, 34 sec. running time
Tri-State	24 VAC, 50/60 Hz, 0.8 VA, 150 sec. running time
2-Position	24 VAC or 120 VAC, 60 Hz, 9.8 VA, 35 sec. running time

General

Mounting Location NEMA 1 (interior only)

Temperature Limits

Medium	34 to 230° F (1 to 110° C)
Ambient	41 to 122° F (5 to 50° C) @ 0 to 90% RH (non-condensing)

Approvals

UL 873 and cUL certified to Canadian Standard C22.2 No. 24-93
 CE compliant (non-spring return actuators)

Accessories/Repair Parts

NOTE: The last digit of valve model number represents the type of actuator.

Replacement Block Cover and Terminal Plug

HPO-5062	For proportional actuator "A/B"
HPO-5061	For tri-state actuator "F"

Replacement Valve Bodies

VFZ-4102AM	2-way, 1/2", 1.0 Cv
VFZ-4102BM	2-way, 1/2", 2.5 Cv
VFZ-4102CM	2-way, 1/2", 4.0 Cv
VFZ-4103AM	2-way, 3/4", 4.1 Cv
VFZ-4104AM	2-way, 1", 7.0 Cv

Replacement Actuators

MEP-3501	"N" (NC, 2-position, 24 VAC, spring return)
MEP-3502	"Q" (NC, 2-position, 120 VAC, spring return)
MEP-3503	"M" (NO, 2-position, 24 VAC, spring return)
MEP-3504	"P" (NO, 2-position, 120 VAC, spring return)
MEP-3510	"F" (Tri-State, 24 VAC, floating)
MEP-3511	"B" (0-10 VDC proportional)
MEP-3516	"A" (10-0 VDC proportional)



VEZ-44 Series

3-Way, NPT, Zone Control Valves (1/2 to 1")



With 2-Position
Fail-Safe Actuator



With Tri-State
or Proportional
Actuator



Specifications

Valve Body

Service	Hot or chilled water, up to 50% glycol
Connections	Female NPT
Seat Style	Metal to metal
Valve Body Rating	ANSI Class 125
Max. Inlet Pressure	125 psig (862 kPa)
Max. Close-Off	(AB-A) 1/2 to 3/4" = 44 psi (303 kPa); 1" = 22 psi (152 kPa)
Close-Off Ratings	According to ANSI/FCI 70-2 (AB-A)
Leakage Rating	ANSI Class III (AB-A)
Flow Characteristics	Linear
Material	
Body	Brass
Body Trim	Brass
Stem	Stainless steel ASTM A582 Type 303
Packing	Ethylene propylene O ring

Actuators

All	24 in.-lbs. (105 N•m) torque
Proportional	24 VAC, 50/60 Hz, 2.5 VA, 34 sec. running time
Tri-State	24 VAC, 50/60 Hz, 0.8 VA, 150 sec. running time
2-Position	24 VAC or 120 VAC, 60 Hz, 9.8 VA, 35 sec. running time

General

Mounting Location NEMA 1 (interior only)

Temperature Limits

Medium	34 to 230° F (1 to 110° C)
Ambient	41 to 122° F (5 to 50° C) @ 0 to 90% RH (non-condensing)

Approvals

UL 873 and cUL certified to Canadian Standard C22.2 No. 24-93
CE compliant (non-spring return actuators)

▲ CAUTION

Using mineral oil lubricants or other incompatible substances in system fluids may damage EPDM rubber seals in valves. Before using any lubricant or additive in a water or ethylene glycol base, consult the substance manufacturer for compatibility with EPDM (Ethylene Propylene Diene Monomer).

These three-way, diverting, globe zone valves are available in 1/2" through 1" line sizes. They are designed to regulate hot or chilled water in VAV terminal unit reheat coils, fan coil units, and induction units. For limited pressures, the valves can also be used in mixing applications (see data sheet for details). The compact size allows easy installation in small enclosures.

The actuator determines the fail position. Actuators have position indication and manual override. Replacement actuators can be installed on the valve bodies without tools.

Choice of tri-state/floating or proportional fail-in-place or two-position spring-return fail-safe:

- Spring-return fail-safe actuators feature easy manual override, visual position indication, UL listing for plenum installations, and heat-resistant lead wires
- Non-fail-safe actuators feature manual override (w/ 3 mm hex wrench), visual position indication, and are CE compliant and UL listed

Models

VEZ-44 YYY MB Z

Actuator

A: 10–0 VDC (0 V = AB-A) Proportional (MEP-3516)
B: 0–10 VDC (0 V = AB-B) Proportional (MEP-3511)
F: Tri-State, 24 VAC, Floating (MEP-3510)
M: Fail AB-A, 2-position, 24 VAC, (MEP-3503)
N: Fail AB-B, 2-position, 24 VAC, (MEP-3501)
P: Fail AB-A, 2-position, 120 VAC, (MEP-3504)
Q: Fail AB-B, 2-position, 120 VAC, (MEP-3502)
 (NOTE: 2-position actuators are spring return fail-safe, and others are fail-in-place)

Size/Cv

02A: 1/2"; 1.0 Cv
02B: 1/2"; 2.5 Cv
02C: 1/2"; 4.0 Cv
03A: 3/4"; 4.1 Cv
04A: 1"; 7.0 Cv

Accessories/Repair Parts

NOTE: The last digit of valve model number represents the type of actuator.

Replacement Block Cover and Terminal Plug

HPO-5062	For proportional actuator "A/B"
HPO-5061	For tri-state actuator "F"

Replacement Valve Bodies

VFZ-4402AM	3-way, 1/2", 1.0 Cv
VFZ-4402BM	3-way, 1/2", 2.5 Cv
VFZ-4402CM	3-way, 1/2", 4.0 Cv
VFZ-4403AM	3-way, 3/4", 4.1 Cv

Replacement Actuators

MEP-3501	"N" (NC, 2-position, 24 VAC, spring return)
MEP-3502	"Q" (NC, 2-position, 120 VAC, spring return)
MEP-3503	"M" (NO, 2-position, 24 VAC, spring return)
MEP-3504	"P" (NO, 2-position, 120 VAC, spring return)
MEP-3510	"F" (Tri-State, 24 VAC, floating)
MEP-3511	"B" (0–10 VDC proportional)
MEP-3516	"A" (10–0 VDC proportional)



Valves, Flanged (2-1/2" to 12")

VEB-53 Series

2-Way, Flanged, Control Ball Valves (4" to 6")



Models

VEB-53 XXX S YY

Actuator Model

(On 4 and 5 inch valves)

FF: Tri-state (MEP-7201, 120 in-lbs.)

FK: 0–10 VDC (MEP-7202, 120 in-lbs.)

FH: Fail-safe, tri-state (MEP-7251, 120 in-lbs.)

FL: Fail-safe, 0–10 VDC (MEP-7252, 120 in-lbs.)

(On 6 inch valves only)

GF: Tri-state (MEP-7501, 180 in-lbs.)

GK: 0–10 VDC (MEP-7502, 180 in-lbs.)

GH: Fail-safe, tri-state (MEP-7551, 180 in-lbs.)

GL: Fail-safe, 0–10 VDC (MEP-7552, 180 in-lbs.)

Pipe Size/Cv

16A: 4"/91

16B: 4"/118

16C: 4"/152

16D: 4"/197

16E: 4"/254

20A: 5"/144

20B: 5"/185

20C: 5"/240

20D: 5"/309

20E: 5"/400

24A: 6"/208

24B: 6"/268

24C: 6"/346

24D: 6"/441

24E: 6"/577

24F: 6"/650

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

These control ball valves are two-way flanged valves, designed for control of hot water or chilled water. These valves range in size from 4 to 6 inches with equal-percentage flow characteristics. Leak-proof, blow-out-proof stems, and stainless steel ball and stem make these valves ideal for many applications.

These valves use KMC MEP-7200/7500 Series ControlSet® actuators with **proportional or tri-state inputs**. Proportional models accept a 0–10 VDC or 4–20 mA control signal input from a thermostat, controller, or building automation system.

Specifications

Service	Hot or chilled water, up to 50% glycol
Action	0 to 90°
Flow Characteristics	Equal percentage
Rangeability	500 to 1
Body Pressure Rating	240 psi at 250° F
Close-Off Rating	90 psi on 4 and 5"; 70 psi on 6"
Cv Rating	See Models chart
Leakage Rating	ANSI Class IV (0.01% of Cv)
Valve Sizes	4 to 6 inches
Body Type	Two-way, flanged connections, ANSI Class 125
Valve Material	
Body	Cast iron, ASTM A395, 60-40-18
Ball and stem	316 stainless-steel
Stem seals	EPDM O-rings
Ball seals	Teflon seals
Actuators	Refer to the "Models" section and the MEP-7200/7500/7800 series actuators section for details
Supply Voltage	24 VAC (+20%/–15%) or 22–35 VDC
Input	Proportional 0–10 VDC or tri-state (floating, 24 VAC)
Fail-safe	Switch-selectable fail direction (on relevant models)
Torque	120 in-lbs. or 180 in-lbs.
Material	Flame-retardant polymer
Temperature Limits	
Medium	–22 to 250° F (–30 to 121° C)
Ambient	–22 to 131° F (–30 to 55° C)
Shipping	–40 to 140° F (–40 to 60° C)

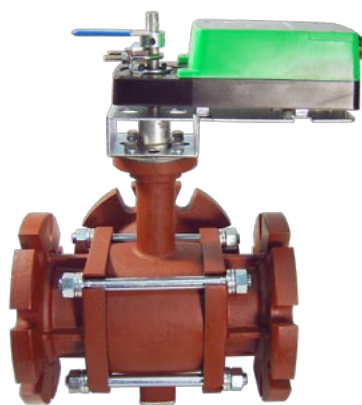
Accessories and Repair Parts

CME-7001	Rotary auxiliary cam switch, single
CME-7002	Rotary auxiliary cam switch, double
HMO-4536	Adjustable stop kit
MEP-7xxx	Actuator (see Models section)



VEB-56 Series

3-Way, Mixing or Diverting, Flanged, Control Ball Valves (4" to 6")



These control ball valves are three-way mixing or diverting flanged valves, designed for control of hot water or chilled water. These valves range in size from 4 to 6 inches with equal-percentage flow characteristics. Leak-proof, blow-out-proof stems, and stainless steel ball and stem make these valves ideal for many applications.

These valves use KMC ControlSet® actuators with **proportional or tri-state inputs**. Proportional models accept a 0–10 VDC or 4–20 mA control signal input from a thermostat, controller, or building automation system.

Models

VEB-56 XXX S YY**Actuator Model**

(On 4 and 5 inch valves)

FF: Tri-state (MEP-7201, 120 in.-lbs.)

FK: 0–10 VDC (MEP-7202, 120 in.-lbs.)

FH: Fail-safe, tri-state (MEP-7251, 120 in.-lbs.)

FL: Fail-safe, 0–10 VDC (MEP-7252, 120 in.-lbs.)

(On 6 inch valves only)

GF: Tri-state (MEP-7501, 180 in.-lbs.)

GK: 0–10 VDC (MEP-7502, 180 in.-lbs.)

GH: Fail-safe, tri-state (MEP-7551, 180 in.-lbs.)

GL: Fail-safe, 0–10 VDC (MEP-7552, 180 in.-lbs.)

Pipe Size/Cv

16A: 4"/91

16B: 4"/118

16C: 4"/152

16D: 4"/197

16E: 4"/254

16F: 4"/327

20A: 5"/144

20B: 5"/185

20C: 5"/240

20D: 5"/309

20E: 5"/400

24A: 6"/208

24B: 6"/268

24C: 6"/346

24D: 6"/441

24E: 6"/577

24F: 6"/650

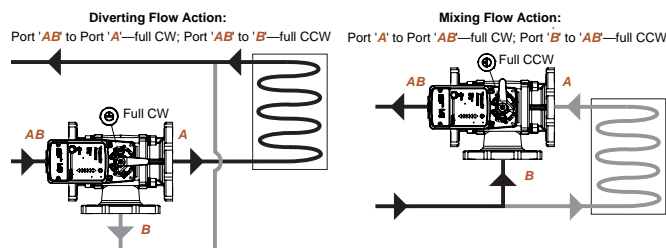
Specifications

Service	Hot or chilled water, up to 50% glycol
Action	0 to 90°
Flow Characteristics	Equal percentage
Rangeability	500 to 1
Body Pressure Rating	240 psi at 250° F
Close-Off Rating	90 psi on 4 and 5"; 70 psi on 6"
Cv Rating	See Models chart
Leakage Rating	ANSI Class IV (0.01% of Cv)
Valve Sizes	4 to 6 inches
Body Type	Three-way, flanged connections, ANSI Class 125
Valve Material	
Body	Cast iron, ASTM A395, 60-40-18
Ball and stem	316 stainless-steel
Stem seals	EPDM O-rings
Ball seals	Teflon seals
Actuators	Refer to the "Models" section and the MEP-7200/7500/7800 series actuators section for details
Supply Voltage	24 VAC (+20%/–15%) or 22–35 VDC
Input	Proportional 0–10 VDC or tri-state (floating, 24 VAC)
Fail-safe	Switch-selectable fail direction (on relevant models)
Torque	120 in.-lbs. or 180 in.-lbs.
Material	Flame-retardant polymer
Temperature Limits	
Medium	–22 to 250° F (–30 to 121° C)
Ambient	–22 to 131° F (–30 to 55° C)
Shipping	–40 to 140° F (–40 to 60° C)

Accessories and Repair Parts

CME-7001	Rotary auxiliary cam switch, single
CME-7002	Rotary auxiliary cam switch, double
HMO-4536	Adjustable stop kit
MEP-7xxx	Actuator (see Models section)

SEE ALSO: [\(Electronic\) Actuators Accessories](#) section, as well as [Valve \(Three-Way\) Application Guide](#), [Valve Sizing Guide](#), and [Valve Effective Cv with Increased Pipe Size](#) in the [Reference](#) section.





SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

SEE ALSO: [\(Electronic\) Actuators Accessories](#) section, as well as [Valve \(Three-Way\) Application Guide](#), and [Valve Sizing Guide](#) in the [Reference](#) section.

VEP-5300 Series Three-Way, Mixing, Flanged Globe Valves Cross-Reference

For new installations, see the equivalent VEB-56 ball valve.

VEP-5400 Series Three-Way, Diverting, Flanged Globe Valves Cross-Reference

For new installations, see the equivalent VEB-56 ball valve.

VEP-5500 Series Two-Way, Double-Seated, Flanged Globe Valves Cross-Reference

For new installations, see the equivalent VEB-53 ball valve.

VEP-5800 Series Two-Way, Single-Seated Flanged Globe Valves Cross-Reference

For new installations, see the equivalent VEB-53 ball valve.

Repair Parts for VEP-5300/5400/5500/5800 Series

HPO-5088	V-ring packing kit
CME-7001	Single auxiliary switch
CME-7002	Dual auxiliary switch

VEP-558 Series Two-Way, Metal Seat Butterfly Valves Cross-Reference

See equivalent VEB-53 ball valve or VEF butterfly valve.

VEP-568 Series Three-Way, Metal Seat Butterfly Valves Cross-Reference

See equivalent VEB-56 ball valve or VEF butterfly valve.

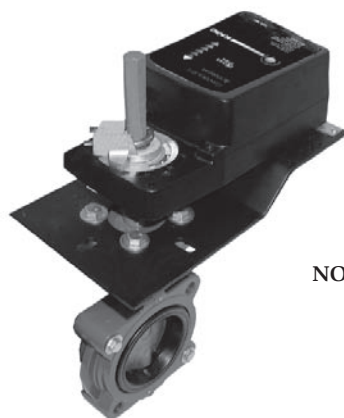
Repair Parts for VEP-558/568 Series

See Accessories under the relevant MEP-1200 or MEP-7000/7700 series actuators section.



VEP-559/VEF Series

Two-Way, Rubber-Lined Butterfly Valves (2" to 12")



NOTE: These models will be changing in the summer of 2009 to a VEF series. See the KMC web site for details at that time.

The KMC VEP-559 Series Butterfly Control Valves are two-way straight-through for high capacity control of low-pressure applications of hot water, chilled water, or low-pressure steam. The rubber-lined butterfly valve require more actuator operating torque than a metal seat butterfly valve and should be used where reliable, bubble-tight shut-off is essential.

These valves are set for a full quarter-turn (90° rotation) for optimum flow characteristics. The valves come assembled in the normally closed position. The unique universal system of brackets and linkage allow for easy field changes of the action to normally open.

SEE ALSO: [\(Electronic\) Actuators Accessories](#) section, as well as [Valve Sizing Guide](#), and [Valve Effective Cv with Increased Pipe Size](#) in the [Reference](#) section.

Specifications

Valve Size 2" through 12"
Body Type ANSI 125 and 150 wafer style flange mating.
 2" to 6" have full lug body alignment holes
 8" to 12" have 4 alignment holes.

Flow Characteristics Linear
Cv Rating @ 90° Rotation
 2"=120
 2-1/2"=194
 3"=430
 4"= 830
 5"=1500
 6"=1980
 8"=3870
 10"=6540
 12"=9800

Maximum Differential Pressure
 50 psi for water (15 psi for steam)

Pressure Drop (psi) @ 90° Rotation
 2"=0.76
 2-1/2"=0.59
 3"=0.29
 4"=0.23
 5"=.017
 6"=0.21
 8 to 12"=0.15

Material
 Body Epoxy Coated Cast Iron
 Disc Aluminum Bronze
 Seat EPDM
 Shaft 416 Stainless Steel
 Bushing Bronze

Temperature Limits
 Medium* 25 to 280° F (4 to 138° C)
 Ambient 0 to 120° F (-18 to 49° C)
 Shipping -40 to 140° F (-40 to 60° C)

* Freeze protection required for mediums below 32° F (0° C).

Accessories

See Accessories under the relevant MEP-1200 Series Cross-Reference section or the MEP-7200/7500/7800 Series Actuators section.

Models (Before June 2009)

VEP-559XYZZZ

X		Y		ZZZ	
Size	Value for "X"	Actuator Qty. & Size	Value for "Y"	Actuator (Choose one)	Value for "ZZZ"
2"	1	One (1) 100 in-lb. or 150 in-lb. Actuator	1	100 in-lb MEP-1262, 2 to 10 VDC	845
				100 in-lb MEP-1263, Tri-State w/FB*	856
				100 in-lb MEP-1272, 2 to 10 VDC, fail-safe	875
				100 in-lb MEP-1273, Tri-State, fail-safe, w/FB*	886
				150 in-lb MEP-7002, 2 to 10 VDC	645
				150 in-lb. MEP-7003, Tri-State w/FB*	656
				150 in-lb MEP-7052, 2 to 10 VDC, fail-safe	675
2-1/2"	2	One (1) 150 in-lb. Actuator	1	150 in-lb MEP-7053, Tri-State, fail-safe, w/FB*	686
				150 in-lb MEP-7002, 2 to 10 VDC	645
				150 in-lb. MEP-7003, Tri-State, w/FB*	656
				150 in-lb MEP-7052, 2 to 10 VDC, fail-safe	675
3"	3	One (1) 300 in-lb. Actuator	1	150 in-lb MEP-7053, Tri-State, fail-safe, w/FB*	686
				300 in-lb MEP-7702, 2 to 10 VDC	945
				300 in-lb MEP-7703, Tri-State, w/FB*	956
				300 in-lb MEP-7752, 2 to 10 VDC, fail-safe	975
4"	4	Two (2) 300 in-lb. Actuators	2	300 in-lb MEP-7753, Tri-State, fail-safe, w/FB*	986
				300 in-lb MEP-7702, 2 to 10 VDC	945
				300 in-lb MEP-7703, Tri-State, w/FB*	956
				300 in-lb MEP-7752, 2 to 10 VDC, fail-safe	975
5"	5	One (1) 1600 in-lb. Actuator	1	300 in-lb MEP-7753, Tri-State, fail-safe, w/FB*	986
				1600 in-lb, 115 VAC, on/off, NEMA4 rating	575
				1600 in-lb, 115 VAC, 0 to 10 VDC, NEMA4 rating	577
				3500 in-lb, 115 VAC, on/off, NEMA4 rating	585
6"	6	One (1) 3500 in-lb. Actuator	1	3500 in-lb, 115 VAC, 0 to 10 VDC, NEMA4 rating	587

* w/ FB = with Feedback

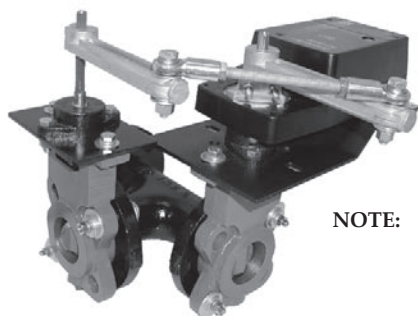
⚠ CAUTION

Using mineral oil lubricants or other incompatible substances in system fluids may damage EPDM rubber seals in valves. Before using any lubricant or additive in a water or ethylene glycol base, consult the substance manufacturer for compatibility with EPDM (Ethylene Propylene Diene Monomer).



VEP-569/VEF Series

Three-Way, Rubber-Lined Butterfly Valves (2" to 12")



NOTE: These models will be changing in the summer of 2009 to a VEF series. See the KMC web site for details at that time.

Specifications

Valve Size	2" through 12"
Body Type	ANSI 125 and 150 wafer style flange mating. 2" to 6" have full lug body alignment holes. 8" to 12" have 4 alignment holes.
Body Rating	125# Cast Iron Tee
Flow Characteristics	Linear
Cv Rating @ 90° Rotation	2"=120 2-1/2"=194 3"=430 4"= 830 5"=1500 6"=1980 8" =3870 10"=6540 12"=9800
Maximum Differential Pressure	50 psi for water (35 psi for steam)
Pressure Drop (psi) @ 90° Rotation	2"=0.76 2-1/2"=0.59 3"=0.29 4"=0.23 5"=0.17 6"=0.21 8"-12"=0.15

Material	
Body	Epoxy coated Cast Iron
Disc	Aluminum Bronze
Seat	EPDM
Shaft	416 Stainless Steel
Bushing	Bronze

Temperature Limits	
Medium*	25 to 280° F (4 to 138° C)
Ambient	0 to 120° F (-18 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

* Freeze protection required for mediums below 32° F (0° C).

The KMC VEP-569 Series Butterfly Control Valves are three-way, **mixing or diverting**, straight-through valves for high capacity control of low-pressure applications of hot water, chilled water, or low-pressure steam. The rubber-lined butterfly valves require more actuator operating torque than a metal seat butterfly valve and are to be used when reliable, bubble-tight, shut-off is essential. These valves are ideally suited for three-way mixing or diverting applications.

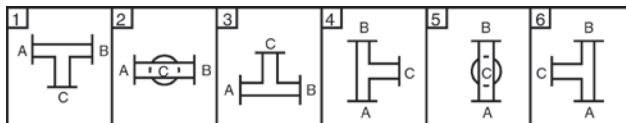
These valves are set for a full quarter-turn (90° rotation) for optimum flow characteristics. The unique universal system of brackets and linkage allow for easy field changes.

Models (Before June 2009)

VEP-569XYZZZ

X		Y		ZZZ	
Size	Value for "X"	Actuator Qty. & Size	Value for "Y"	Actuator (Choose one)	Value for "ZZZ"
2"	1	One (1) 150 in.-lb. Actuator	1	150 in.-lb MEP-7002, 2 to 10 VDC	645
				150 in.-lb. MEP-7003, Tri-State, w/FB*	656
2-1/2"	2	One (1) 150 in.-lb. Actuator	1	150 in.-lb MEP-7052, 2 to 10 VDC, fail-safe	675
				150 in.-lb MEP-7053, Tri-State, fail-safe, w/FB*	686
3"	3	One (1) 300 in.-lb. Actuator	1	300 in.-lb MEP-7702, 2 to 10 VDC	945
				300 in.-lb MEP-7703, Tri-State, w/FB*	956
4"	4	One (1) 300 in.-lb. Actuator	1	300 in.-lb MEP-7752, 2 to 10 VDC, fail-safe	975
				300 in.-lb MEP-7753, Tri-State, fail-safe, w/FB*	986
5"	5	Two (2) 300 in.-lb. Actuators	2	300 in.-lb MEP-7702, 2 to 10 VDC	945
				300 in.-lb MEP-7703, Tri-State, w/FB*	956
6"	6	Two (2) 300 in.-lb. Actuators	2	300 in.-lb MEP-7752, 2 to 10 VDC, fail-safe	975
				300 in.-lb MEP-7753, Tri-State, fail-safe, w/FB*	986
8"	7	One (1) 3500 in.-lb. Actuator	1	3500 in.-lb, 115 VAC, on/off, NEMA4 rating	585
10"	8			3500 in.-lb, 115 VAC, 0-10 VDC, NEMA4 rating	587
12"	9	One (1) 6000 in.-lb. Actuator	1	6000 in.-lb, 115 VAC, on/off, NEMA4 rating	595
				6000 in.-lb, 115 VAC, 0-10 VDC, NEMA4 rating	597

* w/ FB = with Feedback



Available Tee Configurations:

To select a "T" Configuration:

- Configurations are based on looking down on "T" and top of shafts.
- Power valve is designated by first letter followed by slave (e.g., 1BC).
- Bracket for power valve is positioned at 12 o'clock.

When ordering specify Model Number AND "T" Configuration

SEE ALSO: ([Electronic Actuators Accessories](#) section, as well as [Valve \(Three-Way\) Application Guide](#), [Valve Sizing Guide](#), and [Valve Effective Cv with Increased Pipe Size](#) in the [Reference](#) section.

Accessories

See Accessories under the MEP-7200/7500/7800 Series Actuators section.





Pneumatic Products





Actuator Accessories and Repair Parts

CMC-1001

Non-Metallic Positive Positioner for MCP Series



The CMC-1001 relay is designed for use on KMC pneumatic damper actuators. It can be either premounted or field installed on 3", 4", or 6" stroke actuators. It replaces positioners on any MCP actuator with the digit 1 in the fifth (5th) position: MCP-XXXX-1XXX.

The start-point is adjustable from 3 to 10 psi, and the overall span is a function of which feedback spring is used. Feedback springs are available in 5 and 10 psi spans.

When adding a positive positioner to an actuator, an actuator containing an 8 to 13 psi spring should generally be used (so that equal force can be obtained on power and return strokes).

Specifications

Supply Pressure	20 to 30 psig (138 to 207 kPa)
Air Consumption	14.4 scim @ 20 psig (3.93 mL/s at 138 kPa)
Connections	3/16" (5 mm) nipples for 1/4" (6mm) OD polyethylene tubing
Port Markings	
Center	Supply pressure
"1"	Output to actuator
"2"	Signal input
Material	
Body	Flame retardant plastic
Diaphragms	Neoprene
Output Capability	0 to supply pressure
Weight	4 oz. (113 grams)
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

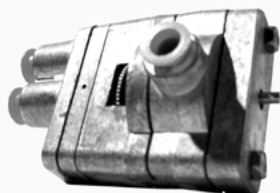
Accessories

VTD-2500	In-line restrictor for CMC-1001
VTD-1500	Feedback arm

NOTE: For feedback springs, see [VCP-41/42/43/51/52/53/54 Positioner Feedback Springs, 5# and 10#](#) section.

CMC-1002

Metal Positive Positioner for MCP Series



The CMC-1002 relay is designed for use on KMC pneumatic damper actuators. It can be either premounted or field installed on 3", 4", or 6" stroke actuators. It is normally furnished on metal actuators but may be applied to the non-metallic units. It replaces positioners on any MCP actuator with the digit 9 in the fifth (5th) position: MCP-XXXX-9XXX.

The start-point is adjustable from 3 to 10 psi, and the overall span is a function of which feedback spring is used. Feedback springs are available in 5 and 10 psi spans. When adding a positive positioner to an actuator, an actuator containing an 8 to 13 psi spring should generally be used (so that equal force can be obtained on power and return strokes).

Specifications

Supply Pressure	20 to 30 psig (138 to 207 kPa)
Air Consumption	28.8 scim @ 20 psig (7.87 mL/s @ 138 kPa)
Connections	1/8" FPT
Port Markings	
"M"	Supply pressure
"B"	Output to actuator
"S"	Signal input
Material	
Body	Zinc
Diaphragms	Neoprene
Output Capability	0 to supply pressure
Weight	1 lb. (.45 kg)
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Accessories

VTD-1500	Feedback arm
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NOTE: For feedback springs, see [VCP-41/42/43/51/52/53/54 Positioner Feedback Springs, 5# and 10#](#) section.



MCP Series Brackets, Mounting



VTD-0902 Right-angle bracket used on all right-angle mounted 3" and 4" actuators



VTD-0903 Right-angle bracket used on all MCP-1020 2" actuators



VTD-1809 1/4-20 mounting bolt used to mount VTD-0902 bracket to 3" and 4" actuators



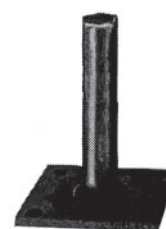
VTD-1805 10-32 mounting screw used to mount VTD-0903 bracket to 2" actuators



VTD-0905 Offset bracket, used with VTD-0904 for post-mounting of all 3" and 4" actuators



VTD-0904 Rear post used on rear swivel mounting of all 3" and 4" actuators, used with VTD-0905



HMO-1002 Replacement floor flange for rear mounting of MCP-1160/5160 actuators

SEE ALSO: The interactive [Actuator Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).



MCP Series Crank/Damper Arms, Linkage, and Other Hardware



- VTD-1403 Slotted crank/damper arm, short for 3/8" shafts
- VTD-1404 Slotted crank/damper arm, short for 1/2" shafts
- VTD-1405 Slotted crank/damper arm, long for 1/2" shafts
- VTD-1406 Slotted crank/damper arm, long for 3/8" shafts



- VTD-1414 Three-hole crank/damper arm for 3/8" shafts
- VTD-1415 Three-hole crank/damper arm for 1/2" shafts

(See also VTD-0804 ball joint)

NOTE: In the VTD-1403/1404 (short) arms, a ball joint can be adjusted from 3/4" (minimum) from the center of the shaft to 2-7/8" (maximum) from the center. In VTD-1405/1406 (long) arms, the maximum is 4-5/8".



- HLO-1002 Replacement crank arm assembly for MCP-1160/5160 series



- VTD-5002 Entire front end linkage (6" x 6") for MCP-1160/5160



- HLO-1001 Replacement clevis for MCP-1160/5160 series



- VTD-1007 U-shaped clevis used on post-mounted 3" and 4" actuators (see also VTD-1601/1100/1205)



- HMO-1001 Replacement rear strap for rear swivel mounting of MCP-1160/5160 series



- VTD-1601 1/4-20 clevis extension used to attach VTD-1007 clevis to post-mounted actuators



- HPO-0005 Clevis pin for use with MCP-8031/8035 (only)



- VTD-1100 Clevis pin used with VTD-1007 on post-mounted 3" and 4" actuators



- HPO-0006 Cotter pin for use with MCP-8031/8035 (only)



- VTD-1205 Cotter pin for use with VTD-1100 on post-mounted 3" and 4" actuators



VTD-0803 Ball joint, 1/4-20 male x 5/16-24" female for use on end of actuator shafts



VTD-0804 Ball joint, 1/4-20 male x 1/4-20" female for use with VTD-1400 series crank arms



VTD-1500 Feedback arm, used on all 3", 4", and 6" positioner actuators to attach feedback springs



VTD-1630 Push rod, 5/16" X 6-1/4", for 2" actuators with full linkage

VTD-1634 Push rod, 5/16" X 3-1/4", for 3" and 4" actuators with full linkage



VTD-1611 Push rod, used on all MCP-8031 actuators with full linkage



VTD-5003 Nut, bolt, and sleeve for rear of MCP-1160/5160



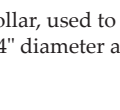
VTD-1920 1/2-13 hex nut used on VTD-0904 post



VTD-2101 1/2" ID lock washer used on VTD-0904 post



VTD-1151 Shaft collar, used to limit the "return" stroke of 2" diameter actuators



VTD-1153 Shaft collar, used to limit the "return" stroke of 3" and 4" diameter actuators



HPO-0004 Retainer bracket for MCP-8031/8035



VDT-2200 Retainer ring, used to hold VTD-0904 to rear for 3" and 4" actuators



Replacement Actuator Diaphragms:
 VTD-9422 MCP-02XX and MCP-1020 series
 VTD-9423 MCP-03XX and MCP-1030/1130 series
 VTD-9424 MCP-04XX and MCP-1040/1140 series
 VTD-9426 MCP-06XX and MCP-1160/5160 series



MCP Series Springs, Actuator



For MCP-0100 Series:

VTD-4103	5–10 psi
VTD-4105	8–13 psi

For MCP-0200 and MCP-1020 Series:

VTD-4202	3–12 psi
VTD-4203	5–10 psi
VTD-4205	8–13 psi
VTD-4206	10–15 psi
VTD-4208	4–8 psi

For MCP-0300 and MCP-1030/1130 Series:

VTD-4302	3–12 psi
VTD-4303	5–10 psi
VTD-4305	8–13 psi
VTD-4306	10–15 psi
VTD-4308	4–8 psi

For MCP-0400 and MCP-1040/1140 Series:

VTD-4402	3–12 psi
VTD-4403	5–10 psi
VTD-4405	8–13 psi
VTD-4406	10–15 psi
VTD-4408	4–8 psi

For MCP-0600 and MCP-1160/5160 Series:

VTD-4605	8–13 psi
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MCP Series Springs, Feedback



Feedback Springs for CMC-1001

3 psi Span:	
VTD-2272	On 6" actuators
7 psi Span:	
VTD-2282	On 6" actuators
5 psi Span:	
VTD-2250	On 3" actuators
VTD-2251	On 4" actuators
VTD-2252	On 6" actuators
10 psi Span:	
VTD-2260	On 3" actuators
VTD-2261	On 4" actuators
VTD-2262	On 6" actuators

Feedback Springs for CMC-1002

5 psi Span:	
VTD-2254	On 3" actuators
VTD-2253	On 4" actuators
VTD-2256	On 6" actuators
10 psi Span:	
VTD-2264	On 3" actuators
VTD-2263	On 4" actuators
VTD-2266	On 6" actuators



Actuators

MCP-0100/0200/0300/0400/0600 Series “Bare” Pneumatic Actuators



“Standard” Body Shown



“Clevis” Body Shown

2" Diameter x 1" Stroke

MCP-0103	5–10 psi, 1/4-20 female shaft
MCP-0105	8–13 psi, 1/4-20 female shaft

MCP-0143	5–10 psi, 5/16-24 male shaft
MCP-0145	8–13 psi, 5/16-24 male shaft

2" Diameter x 2" Stroke

MCP-0202	3–12 psi, Standard body
MCP-0203	5–10 psi, Standard body
MCP-0205	8–13 psi, Standard body
MCP-0206	10–15 psi, Standard body
MCP-0208	4–8 psi, Standard body
Above 5 Actuators Are Used For All MCP-1020 Series	

MCP-0243	5–10 psi, 5/16-24 male shaft
MCP-0245	8–13 psi, 5/16-24 male shaft
MCP-0248	4–8 psi, 5/16-24 male shaft
MCP-0252	3–12 psi, Clevis body
MCP-0253	5–10 psi, Clevis body
MCP-0255	8–13 psi, Clevis body
MCP-0256	10–15 psi, Clevis body
MCP-0258	4–8 psi, Clevis body

SEE ALSO: The interactive [Actuator Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

SEE ALSO: The [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section. See also [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.

3" Diameter x 3" Stroke

MCP-0302	3–12 psi, Standard body
MCP-0303	5–10 psi, Standard body
MCP-0305	8–13 psi, Standard body
MCP-0306	10–15 psi, Standard body
MCP-0308	4–8 psi, Standard body
Above 5 Actuators Are Used For All MCP-1030 Series	

MCP-0352	3–12 psi, Clevis body
MCP-0353	5–10 psi, Clevis body
MCP-0355	8–13 psi, Clevis body
MCP-0356	10–15 psi, Clevis body
MCP-0358	4–8 psi, Clevis body
Above 5 Actuators Are Used For All MCP-1130 Series	

4" Diameter x 4" Stroke

MCP-0402	3–12 psi, Standard body
MCP-0403	5–10 psi, Standard body
MCP-0405	8–13 psi, Standard body
MCP-0406	10–15 psi, Standard body
MCP-0408	4–8 psi, Standard body
Above 5 Actuators Are Used For All MCP-1040 Series	

MCP-0452	3–12 psi, Clevis body
MCP-0453	5–10 psi, Clevis body
MCP-0455	8–13 psi, Clevis body
MCP-0456	10–15 psi, Clevis body
MCP-0458	4–8 psi, Clevis body
Above 5 Actuators Are Used For All MCP-1040 Series	

Hesitation Actuators

MCP-0360	Fits All MCP-1231 Series
MCP-0460	Fits All MCP-1241 Series

6" Diameter x 6" Stroke

MCP-0655	Fits All MCP-1160 (Nylon)
MCP-0695	Fits All MCP-5160 (Metal)

Miscellaneous Bare Actuators

MCP-0335	3" x 3" Nylon for Phoenix Controls
MCP-0435	4" x 4" Nylon for Phoenix Controls



MCP-1020/020X Series

2" Damper Actuators



Crank Arm Shown

These actuators are designed for use in pneumatic control systems to position automatic air dampers. May be used for gradual or two-position applications.

Models are available with right angle bracket mounting and several linkage arrangements.

Models

MCP-1020- X YYY	
Spring Range	Linkage
2 (3–12 psi)	308 (w/ ball joint)
3 (5–10 psi)	311 (w/ 1/2" crank arm)
5 (8–13 psi)	312 (w/ 3/8" crank arm)
6 (10–15 psi)	
8 (4–8 psi)	

Accessories and Repair Parts

CMC-1001	Non-metallic positive positioner
CMC-1002	Metal positive positioner
VTD-0803	Ball joint, 1/4-20 male x 5/16-24 female for use on end of actuator shafts
VTD-0804	Ball joint, 1/4-20 male x 1/4-20 female for use with VTD-1400 series crank arms
VTD-0903	Right-angle bracket used on MCP-1020 actuators
VTD-1414	Three-hole crank arm for 3/8" damper shafts
VTD-1415	Three-hole crank arm for 1/2" damper shafts
VTD-1630	Push rod, 5/16 x 6-1/4"
VTD-9422	Replacement actuator diaphragm
MCP-0202	3 to 12 psi actuator for MCP-1020 series
MCP-0203	5 to 10 psi actuator for MCP-1020 series
MCP-0205	8 to 13 psi actuator for MCP-1020 series
MCP-0206	10 to 15 psi actuator for MCP-1020 series
MCP-0208	4 to 8 psi actuator for MCP-1020 series

Specifications

Effective Area	3 sq. in. (19 sq. cm.)
Stroke	2" (51 mm)
Supply Pressure	0 to 20 psig (138 kPa) operating; 30 psig (207 kPa) maximum
Spring Ranges	Retracted/Extended Torque (based on 0 and 20 psi applied)
3–12 psi (21–83 kPa)	10/26 in-lbs. (1/3 N•m) @ 90°
5–10 psi (34–69 kPa)	16/32 in-lbs. (2/4 N•m) @ 90°
8–13 psi (55–90 kPa)	26/22 in-lbs. (3/2 N•m) @ 90°
10–15 psi (69–103 kPa)	32/16 in-lbs. (4/2 N•m) @ 90°
4–8 psi (28–55 kPa)	13/38 in-lbs. (1/4 N•m) @ 90°
Supply Connection	3/16" (5 mm) fitting for 1/4" (6 mm) OD polyethylene tubing
Material	
Body	Glass-filled nylon (Nylatron GS63-13)
Diaphragm	Neoprene
Piston	Glass-filled nylon (Nylatron GS63-13)
Shaft	CRS with nickel plating
Bearing	Glass-filled nylon (Nylatron GS63-13)
Damper Ratings	
Gradual	3 sq. ft (0.28 sq. m) @ 1,000 fpm
Two Position	4.5 sq. ft (0.42 sq. m) @ 1,000 fpm
Temperature Limits	

NOTE: If application requires operation near maximum temperature AND maximum pressure, install a tubing restraint at the actuator connection.

Operating	–20 to 180° F (–29 to 82° C)
Shipping	–40 to 180° F (–40 to 82° C)

⚠ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.

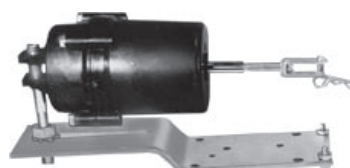
SEE ALSO: The [MCP-0100/0200/0300/0400 Series](#) section, [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section. See also [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.

SEE ALSO: The interactive [Actuator Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).



MCP-1030/1130/03xx Series

3" Damper Actuators

Cleviss
and Post
Mount
ShownCrank Arm
and Right
Angle
Mount
Shown

These actuators are designed for use in pneumatic control systems positioning automatic air dampers and can be used for gradual or two-position applications.

Select either post or right angle bracket mounting. Right angle mounted versions are furnished with crank arms for either 1/2" or 3/8" damper shafts. Either style can be shipped with a positive positioner. Actuators with positioners are furnished with an 8–13 psi internal spring and a 5 psi span spring. A 10 psi span spring may be ordered separately if required.

Accessories and Repair Parts

CMC-1001	Non-metallic positive positioner
CMC-1002	Metal positive positioner
MCP-0302	3 to 12 psi actuator for MCP-1030 series
MCP-0303	5 to 10 psi actuator for MCP-1030 series
MCP-0305	8 to 13 psi actuator for MCP-1030 series
MCP-0306	10 to 15 psi actuator for MCP-1030 series
MCP-0308	4 to 8 psi actuator for MCP-1030 series
MCP-0335	8 to 13 psi Phoenix actuator
MCP-0352	3 to 12 psi actuator for MCP-1130 series
MCP-0353	5 to 10 psi actuator for MCP-1130 series
MCP-0355	8 to 13 psi actuator for MCP-1130 series
MCP-0356	10 to 15 psi actuator for MCP-1130 series
MCP-0358	4 to 8 psi actuator for MCP-1130 series
VTD-0803	Ball joint, 1/4-20 male x 5/16-24" female for use on end of actuator shafts
VTD-0804	Ball joint, 1/4-20 male x 1/4-20" female for use with VTD-1400 series crank arms
VTD-0902	Right-angle bracket used on all right-angle mounted 3" and 4" actuators
VTD-0904	Rear post used on rear swivel mounting of all 3" and 4" actuators, used with VTD-0905
VTD-0905	Offset bracket, used with VTD-0904 for post-mounting of all 3" and 4" actuators
VTD-1100	1/4" clevis pin, post mount actuators
VTD-1205	Hairpin cotter, post mount actuators
VTD-1414	3-hole crank arm, 3/8" damper shafts
VTD-1415	3-hole crank arm, 1/2" damper shafts
VTD-1500	Positioner feedback arm
VTD-1634	Push rod, 5/16" X 3-1/4"
VTD-1920	1/2-13 hex nut used on VTD-0904 post
VTD-2101	1/2" ID lock washer used on VTD-0904 post
VTD-2250	5# feedback spring; CMC-1001
VTD-2254	5# feedback spring; CMC-1002
VTD-2260	10# feedback spring; CMC-1001
VTD-2264	10# feedback spring; CMC-1002
VTD-9423	Replacement actuator diaphragm

Specifications

Effective Area	7 sq. in. (45 sq. cm)
Stroke	3" (76 mm)
Control Signal Pressure Input	0 to 20 psig (138 kPa) operating 30 psig (207 kPa) maximum
Control Signal Connections	3/16" (5 mm) for 1/4" OD polyethylene tubing.
Spring Ranges	Retracted/Extended Torque (Based on 0 and 20 psi applied) 3–12 psi (12–83 kPa); 31/84 in.-lbs. (4/9 N•m) @ 90° 5–10 psi (34–69 kPa); 52/105 in.-lbs. (6/12 N•m) @ 90° 8–13 psi (55–90 kPa); 84/74 in.-lbs. (9/8 N•m) @ 90° 10–15 psi (69–103 kPa); 105/52 in.-lbs. (12/6 N•m) @ 90° 4–8 psi (28–55 kPa); 42/126 in.-lbs. (5/14 N•m) @ 90°
Material	Body Glass-filled nylon (Nylatron GS63-13) Diaphragm Neoprene Piston Glass-filled nylon (Nylatron GS63-13) Shaft CRS with nickel plating Bearing Nylatron GS63-13 glass-filled nylon (but Delrin in the MCP-0435)

Temperature Limits

NOTE: If application requires operation near maximum temperature AND maximum pressure, install a tubing restraint at the actuator connection.

Operating	–20 to 180° F (–29 to 82° C)
Shipping	–40 to 180° F (–40 to 82° C)

Models

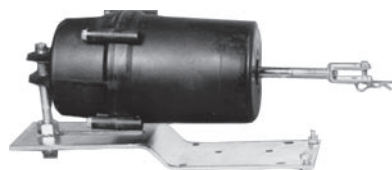
MCP-1 X 30 Y ZZZ		
Mounting	0 (right angle mount)	Bracket/Linkage
	1 (post mount)	
Spring Range	1 (w/ CMC-1001)	520 (MCP-1130 w/ clevis) 108 (MCP-1030 w/ ball joint) 111 (MCP-1030 w/ 1/2" crank arm) 112 (MCP-1030 w/ 3/8" crank arm)
	2 (3–12 psi)	
	3 (5–10 psi)	
	5 (8–13 psi)	
	6 (10–15 psi)	
	8 (4–8 psi)	
	9 (w/ CMC-1002)	

SEE ALSO: The [MCP-0100/0200/0300/0400 Series](#) section, [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section. See also [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.



MCP-1040/1140/04xx Series

4" Damper Actuators



**Clevis
and Post
Mount
Shown**



**Crank Arm
and Right
Angle
Mount
Shown**

These actuators are designed for use in pneumatic control systems positioning automatic air dampers and may be used for gradual or two-position applications.

Select either post or right angle bracket mounting. Right angle mounted versions are furnished with crank arms for either 1/2" or 3/8" damper shafts. Either style can be shipped with a positive positioner. Actuators with positioners are furnished with an 8–13 psi internal spring, a 5 psi span spring, and if desired, a 10 psi span spring may be ordered separately and added in the field.

Accessories and Repair Parts

CMC-1001	Non-metallic positive positioner
CMC-1002	Metal positive positioner
MCP-0402	3 to 12 psi actuator for MCP-1040 series
MCP-0403	5 to 10 psi actuator for MCP-1040 series
MCP-0405	8 to 13 psi actuator for MCP-1040 series
MCP-0406	10 to 15 psi actuator for MCP-1040 series
MCP-0408	4 to 8 psi actuator for MCP-1040 series
MCP-0435	8 to 13 psi Phoenix actuator
MCP-0452	3 to 12 psi actuator for MCP-1140 series
MCP-0453	5 to 10 psi actuator for MCP-1140 series
MCP-0455	8 to 13 psi actuator for MCP-1140 series
MCP-0456	10 to 15 psi actuator for MCP-1140 series
MCP-0458	4 to 8 psi act. for MCP-1140 series
VTD-0803	Ball joint, 1/4-20 male x 5/16-24" female for use on end of actuator shafts
VTD-0804	Ball joint, 1/4-20 male x 1/4-20" female for use with VTD-1400 series crank arms
VTD-0902	Right-angle bracket used on all right-angle mounted 3" and 4" actuators
VTD-0904	Rear post used on rear swivel mounting of all 3" and 4" actuators, used with VTD-0905
VTD-0905	Offset bracket, used with VTD-0904 for post-mounting of all 3" and 4" actuators
VTD-1100	1/4" clevis pin, post mount actuators
VTD-1205	Hairpin cotter, post mount actuators
VTD-1414	3-hole crank arm, 3/8" damper shafts
VTD-1415	3-hole crank arm, 1/2" damper shafts
VTD-1500	Positioner feedback arm
VTD-1634	Push rod, 5/16" X 3-1/4"
VTD-1920	1/2-13 hex nut used on VTD-0904 post
VTD-2101	1/2" ID lock washer used on VTD-0904 post
VTD-2251	5# feedback spring; CMC-1001
VTD-2253	5# feedback spring; CMC-1002
VTD-2261	10# feedback spring; CMC-1001
VTD-2263	10# feedback spring; CMC-1002
VTD-9424	Replacement actuator diaphragm

Specifications

Effective Area	11 sq. in. (71 sq. cm)
Stroke	4" (102 mm)
Control Signal Pressure Input	0 to 20 psig (138 kPa) operating 30 psig (207 kPa) maximum
Spring Ranges	Retracted/Extended Torque (Based on 0 and 20 psi applied) 3–12 psi (21–83 kPa) 66/176 in.-lbs. (7/20 N•m) @ 90° 5–10 psi (34–69 kPa) 110/220 in.-lbs. (12/25 N•m) @ 90° 8–13 psi (55–90 kPa) 176/154 in.-lbs. (20/17 N•m) @ 90° 10–15 psi (69–103 kPa) 220/110 in.-lbs. (25/12 N•m) @ 90° 4–8 psi (28–55 kPa) 88/264 in.-lbs. (10/19 N•m) @ 90°
Control Signal Connection	3/16" (5 mm) fitting for 1/4" (6 mm) OD polyethylene tubing
Material	Body Glass-filled nylon (Nylatron GS63-13) Diaphragm Neoprene Piston Glass-filled nylon (Nylatron GS63-13) Shaft CRS with nickel plating Bearing Nylatron GS63-13 glass-filled nylon (but Delrin in the MCP-0435)

Temperature Limits

NOTE: If application requires operation near maximum temperature AND maximum pressure, install a tubing restraint at the actuator connection.

Operating	–20 to 180° F (–29 to 82° C)
Shipping	–40 to 180° F (–40 to 82° C)

Models

MCP-1 X 40 Y ZZZ		
Mounting		Bracket/Linkage
0 (right angle mount)		520 (MCP-1140 w/ clevis)
1 (post mount)		208 (MCP-1040 w/ ball joint)
Spring Range		
1 (w/ CMC-1001)		211 (MCP-1040 w/ 1/2" crank arm)
2 (3–12 psi)		212 (MCP-1040 w/ 3/8" crank arm)
3 (5–10 psi)		
5 (8–13 psi)		
6 (10–15 psi)		
8 (4–8 psi)		
9 (w/ CMC-1002)		

Actuator Assemblies for Butterfly Valves

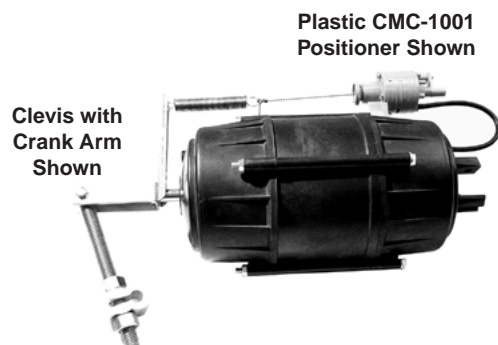
MCP-1140-1003	4" x 4" post-mounted w/ plastic positioner
MCP-1140-1054	4" x 4" post-mounted w/ plastic positioner
MCP-1140-1403	4" x 4" post-mounted w/ plastic positioner
MCP-1140-1443	4" x 4" post-mounted w/ plastic positioner
MCP-1140-5003	4" x 4" post-mounted w/ 8–13 psi spring
MCP-1140-5054	4" x 4" post-mounted w/ 8–13 psi spring
MCP-1140-5403	4" x 4" post-mounted w/ 8–13 psi spring
MCP-1140-5443	4" x 4" post-mounted w/ 8–13 psi spring

SEE ALSO: The [MCP-0100/0200/0300/0400 Series](#) section, [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section. See also [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.



MCP-1160 Series

6" Damper Actuator



The MCP-1160 is designed for use with large automatic air control dampers. It features a universal mounting bracket for mounting on dampers, butterfly valves and variable fan inlet vanes.

The MCP-1160 has an 8 to 13 psi main spring for ample return power. The linkage is designed for angular adjustment for 60 to 120° of damper rotation at full stroke. Use in modulating or two-position applications with or without an adjustable start-point positive positioner.

Item pictured is model MCP-1160-1111.

Models

	Mounting Bracket	Crankarm Linkage Only	Clevis Linkage Only	Plastic Positioner	Metal Positioner
MCP-1160-1020					
MCP-1160-1101					
MCP-1160-1102					
MCP-1160-1103					
MCP-1160-1104					
MCP-1160-1111					
MCP-1160-1114					
MCP-1160-5020					
MCP-1160-5101					
MCP-1160-5102					
MCP-1160-5103					
MCP-1160-5104					
MCP-1160-5111					
MCP-1160-5114					
MCP-1160-9111					
MCP-1160-9114					

CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.

Specifications

Effective Area	24.8 sq. in. (160 sq. cm)
Stroke	6" (152 mm)
Supply Pressure	0 to 20 psig (138 kPa) operating; 30 psig (207 kPa) maximum.
Spring Ranges	Retracted/extended torque (based on 0 and 20 psi applied) 8 to 13 psi (55 to 90 kPa); 576/504 in.-lbs. (65/57 N•m) @ 90°

Supply Connection	3/16" (5 mm) nipple for 1/4" (6 mm) OD polyethylene tubing
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Material	
Body	Glass-filled nylon
Diaphragm	Neoprene
Piston	Glass-filled nylon
Shaft	CRS w/ nickel plating
Bearing	Glass-filled nylon

Damper Ratings @ 1000 fpm	
Gradual	75 sq. ft (7 sq. m)
Two Position	90 sq. ft (8.36 sq. m)

Temperature Limits

NOTE: If application requires operation near maximum temperature AND maximum pressure, install a tubing restraint at the actuator connection.

Operating	-20 to 180° F (-29 to 82° C)
Shipping	-40 to 180° F (-40 to 82° C)

Accessories and Repair Parts

CMC-1001	Non-metallic positive positioner
CMC-1002	Metal positive positioner
VTD-1500	Positioner feedback arm
VTD-2252	5 psi span spring for CMC-1001
VTD-2256	5 psi span spring for CMC-1002
VTD-2262	10 psi span spring for CMC-1001
VTD-2266	10 psi span spring for CMC-1002
VTD-2272	3 psi span spring for CMC-1001
VTD-2282	7 psi span spring for CMC-1001
VTD-9426	Replacement actuator diaphragm

Actuator Assemblies for Butterfly Valves

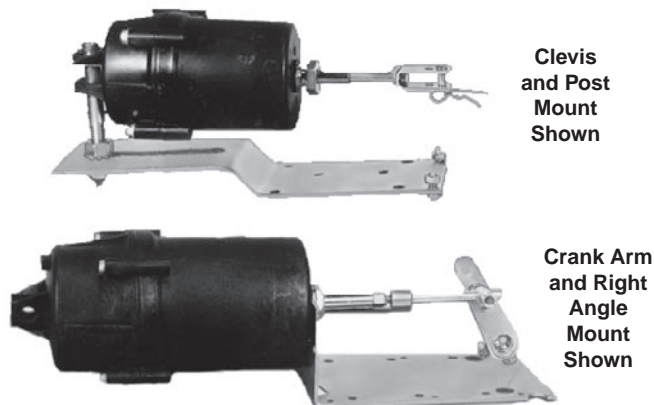
MCP-1160-1020	6" x 6" no bracket w/ 8-13 psi spring
MCP-1160-1102	6" x 6" rear swivel w/ 8-13 psi spring
MCP-1160-1103	6" x 6" rear swivel w/ 8-13 psi spring
MCP-1160-1104	6" x 6", clevis 7#
MCP-1160-1114	6" x 6" rear swivel w/ plastic positioner
MCP-1160-5020	6" x 6" no bracket w/ plastic positioner
MCP-1160-5102	6" x 6" rear swivel w/ plastic positioner
MCP-1160-5103	6" x 6" rear swivel
MCP-1160-5104	6" x 6", clevis 8-13#
MCP-1160-5114	6" x 6" rear swivel w/ 8-13 psi spring
MCP-1160-9114	6" x 6" rear swivel w/ metal positioner

SEE ALSO: The [MCP-0100/0200/0300/0400 Series](#) section, [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section. See also [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.



MCP-1231/1241

2 and 3" Hesitation Stroke Damper Actuators



Clevis
and Post
Mount
Shown

Crank Arm
and Right
Angle
Mount
Shown

These actuators are designed for use in unit ventilators and air handling units positioning automatic dampers based on an air pressure signal from a control device.

An increase in pressure causes the actuator to stroke to a preset adjustable position, hesitate for a preset pressure range, then complete the full stroke. The stroke before and after hesitation is field adjustable.

Actuators may be combined with other control devices for performing various ASHRAE control cycles. Special mounting arrangements are available for adapting to various unit ventilators.

Models

MCP-1231-0211	2" stroke; right-angle mount
MCP-1241-0211	3" stroke; right-angle mount
MCP-1231-0520	2" stroke; post mount
MCP-1241-0520	3" stroke; post mount

The MCP-1231/1241 series actuators are equivalent to these Robertshaw/Invensys models:

M583-0211	= MCP-1231-0211
M583-0520	= MCP-1231-0520
M584-0211	= MCP-1241-0211
M584-0520	= MCP-1241-0520

SEE ALSO: The [MCP-0100/0200/0300/0400 Series](#) section, [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section. See also [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.

SEE ALSO: The interactive [Actuator Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

Specifications

Effective Area

MCP-1231	7 sq. in. (45 sq. cm)
MCP-1241	11 sq. in. (71 sq. cm)

Stroke

MCP-1231	2" (51 mm)
MCP-1241	3" (76 mm)

Control Signal Pressure Input

0 to 20 psig (138 kPa) operating
30 psig (207 kPa) maximum

Control Signal Connection

3/16" (5 mm) fitting for 1/4"
(6 mm) OD polyethylene tubing

Adjustments

Hesitation Start Point	4 psig (28 kPa), stroke adjustable 20% to 70% prior to 4 psig.
Hesitation Finish Point	8 psig (5 kPa), stroke adjustable 80% to 30% after 8 psig.

Material

Body	Black glass-filled nylon
Diaphragm	Neoprene
Piston	Glass-filled nylon
Shaft	CRS w/ nickel plating
Bearing	Aluminum

Temperature Limits

NOTE: If application requires operation near maximum temperature AND maximum pressure, install a tubing restraint at the actuator connection.

Operating	-20 to 180° F (-29 to 82° C)
Shipping	-40 to 180° F (-40 to 82° C)

Accessories and Repair Parts

VTD-0803	Ball joint, 1/4-20 male x 5/16-24" female for use on end of actuator shafts
VTD-0804	Ball joint, 1/4-20 male x 1/4-20" female for use with VTD-1400 series crank arms
VTD-1100	1/4" clevis pin, post mount actuators
VTD-1205	Hairpin cotter, post mount actuators
VTD-1414	3-hole crank arm, 3/8" damper shafts
VTD-1415	3-hole crank arm, 1/2" damper shafts
VTD-1500	Positioner feedback arm
VTD-1630	Push rod, 5/16" x 6-1/4"
VTD-9423	Replacement actuator diaphragm, MCP-1231
VTD-9424	Replacement actuator diaphragm, MCP-1241

⚠ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.



MCP-3631 Series Rotary Actuator



These pneumatic rotary actuators are designed for use on VAV terminal units and other small dampers in HVAC systems as well as VCB-41/42/46 ball valves.

Models ending in "000" will mount to 1/2-inch diameter damper shafts or (using the HLO-1011 shaft adapter) to 3/8-inch diameter shafts. Models ending with a "001" will mount to 3/8-inch square damper shafts.

Actuators may be mounted with either side toward damper to allow clockwise or counterclockwise rotation. A non-rotation bracket is supplied with each actuator and a variety of options are available to lock the actuator's drive hub to the damper shaft.

Models

Actuators for 1/2" or 3/8" Diameter Shafts

MCP-3631-2000	3–12 psi range (21–83 kPa)
MCP-3631-3000	5–10 psi range (34–69 kPa)
MCP-3631-5000	8–13 psi range (55–90 kPa)
MCP-3631-8000	3–8 psi range (21–55 kPa)

Actuators for 3/8" Square Shafts

MCP-3631-3001	5–10 psi range (34–69 kPa)
MCP-3631-5001	8–13 psi range (55–90 kPa)
MCP-3631-8001	3–8 psi range (21–55 kPa)

SEE ALSO: The [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section. See also [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.

SEE ALSO: The interactive [Actuator Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

Specifications

Effective Area	8 sq. in. (52 sq. cm)
Normal Rotation	100°
Supply Pressure	0 to 20 psig (138 kPa) operating; 30 psig (207 kPa) maximum
Spring Range and Retracted/Extended Torque	(based on 0 and 20 psi applied)
3–12 psi (21–83 kPa)	25/68 in.-lbs. (3/8 N•m) @ 90°
5–10 psi (34–69 kPa)	42/85 in.-lbs. (5/10 N•m) @ 90°
8–13 psi (55–90 kPa)	68/59 in.-lbs. (8/7 N•m) @ 90°
3–8 psi (21–55 kPa)	25/102 in.-lbs. (3/12 N•m) @ 90°
Supply Connection	3/16" (5 mm) nipple for 1/4" (6 mm) OD polyethylene tubing
Material	Body: Glass-filled nylon Diaphragm: Neoprene

Temperature Limits

NOTE: If application requires operation near maximum temperature AND maximum pressure, install a tubing restraint at the actuator connection.

Operating	–20 to 180° F (–29 to 82° C)
Shipping	–40 to 180° F (–40 to 82° C)

Accessories and Repair Parts

HLO-1006 Drive bushing (with tabs), 1/2" round or 3/8" square shaft adapter



HLO-1016 Collar (without tabs) for 1/2" round or 3/8" square shaft adapter (used with HLO-1006 or HLO-1008)



HLO-1004 Set of 1 drive bushing (HLO-1006) and 1 collar (HLO-1016)

HLO-1008 Drive pin, allows MCP-3631 to drive 1/2" diameter shaft via cross-hole drilled in shaft (used with HLO-1009 or HLO-1016)



HLO-1009 Push-on shaft retainer, allows MCP-3631 to be mounted to 1/2" diameter shaft when using HLO-1008



HLO-1011 Adapter for 3/8" shaft, allows MCP-3631 to be used on 3/8" damper shaft.



HMO-1003 Replacement, non-rotation bracket (one furnished with each MCP-3631)



HPO-0038 Replacement MCP-3631 diaphragm

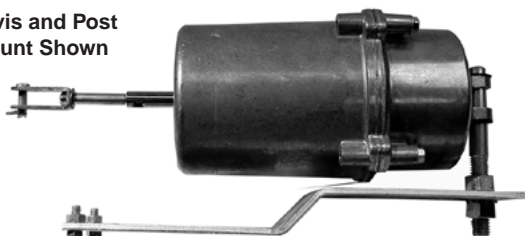




MCP-5140 Series

4" (Metal) Damper Actuators

Clevis and Post Mount Shown



These actuators are designed for use in pneumatic control systems positioning automatic air dampers. May be used for gradual or two-position applications. **The metal body allows them to be used in ceiling plenums where local safety codes do not allow non-metallic actuators.**

Select either post or right angle bracket mounting. Right angle mounted versions are furnished with crankarms for either 1/2" or 3/8" damper shafts. Either style can be shipped with a positive positioner. Actuators with positioners are furnished with an 8–13 psi internal spring, a 5 psi span spring, and if desired, a 10 psi span spring may be ordered separately and added in the field.

Models

MCP-5140-X YYY	
Spring Range	Bracket/Linkage
2 (3–12 psi)	520 (post mounted with clevis)
3 (5–10 psi)	208 (right angle mounted with ball joint)
5 (8–13 psi)	211 (right angle mounted with 1/2" crank arm)
6 (10–15 psi)	212 (right angle mounted with 3/8" crank arm)
8 (4–8 psi)	
9 (w/ CMC-1002)	

Actuator Assemblies for Butterfly Valves

MCP-5140-5003	4" x 4" post-mounted w/ 8–13 psi spring
MCP-5140-5020	4" x 4", clevis 8–13#
MCP-5140-5054	4" x 4" post-mounted w/ 8–13 psi spring
MCP-5140-5403	4" x 4" post-mounted w/ 8–13 psi spring
MCP-5140-5443	4" x 4" post-mounted w/ plastic positioner
MCP-5140-9003	4" x 4" post-mounted w/ metal positioner
MCP-5140-9020	4" x 4", clevis, positioner
MCP-5140-9054	4" x 4" post-mounted w/ metal positioner
MCP-5140-9403	4" x 4" post-mounted w/ metal positioner
MCP-5140-9443	4" x 4" post-mounted w/ 8–13 psi spring

Specifications

Effective Area	11 sq. in. (71 sq. cm)
Stroke	4" (102 mm)
Supply Pressure	0 to 20 psig (138 kPa) operating; 30 psig (207 kPa) maximum
Spring Ranges	Retracted/Extended Torque (based on 0 and 20 psi applied)
3–12 psi (21–83 kPa)	66/176 in.-lbs. (7/20 Nm) @ 90°
5–10 psi (34–69 kPa)	110/220 in.-lbs. (12/25 Nm) @ 90°
8–13 psi (55–90 kPa)	176/154 in.-lbs. (20/17 Nm) @ 90°
10–15 psi (69–103 kPa)	220/110 in.-lbs. (25/12 Nm) @ 90°
4–8 psi (28–55 kPa)	88/264 in.-lbs. (10/19 Nm) @ 90°
Supply Connection	1/8" (3 mm) FPT, supplied with brass compression fitting for 1/4" (6 mm) OD tubing

Material

Body	Die-cast aluminum
Diaphragm	Neoprene
Piston	Glass-filled nylon

Temperature Limits

NOTE: If application requires operation near maximum temperature AND maximum pressure, install a tubing restraint at the actuator connection.

Operating	–20 to 180° F (–29 to 82° C)
Shipping	–40 to 180° F (–40 to 82° C)

Accessories and Repair Parts

CMC-1002	Metal positive positioner
VTD-0803	Ball joint, 1/4-20 male x 5/16-24" female for use on end of actuator shafts
VTD-0804	Ball joint, 1/4-20 male x 1/4-20" female for use with VTD-1400 series crank arms
VTD-1100	1/4" clevis pin, post mount actuators
VTD-1205	Hairpin cotter, post mount actuators
VTD-1414	3-hole crank arm, 3/8" damper shafts
VTD-1415	3-hole crank arm, 1/2" damper shafts
VTD-1500	Positioner feedback arm
VTD-1630	Push rod, 5/16" X 6-1/4"
VTD-2253	5# feedback spring (furnished with actuator)
VTD-2263	10# feedback spring (optional)
VTD-9424	Replacement actuator diaphragm

SEE ALSO: The [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section. See also [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.

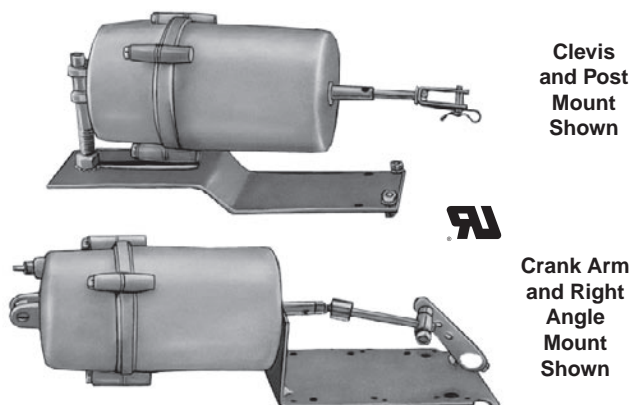
⚠ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.



MCP-5145 Series

4" Smoke Damper Actuators



This series of actuators is designed for use in Smoke Control Systems. The actuators position automatic smoke dampers in ambient, or elevated temperatures up to 450°, for up to 30 minutes. The units may be used for gradual or two-position applications.

MCP-5145s are manufactured and tested to meet Underwriters Laboratories Standard UL 555S for use on "Leakage Rated Dampers For Use In Smoke Control Systems."

Models are available with either post or right angle bracket mounting. Right angle models are shipped with crank arms for either 1/2" or 3/8" damper shafts. A variety of spring and bracket/linkage combinations are available to meet most requirements.

SEE ALSO: The [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section. See also [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.

SEE ALSO: The interactive [Actuator Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

⚠ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.

Specifications

Effective Area	11 sq. in. (71 sq. cm)
Stroke	4 in. (102 mm)
Supply Pressure	
Operating	0 to 20 psig (0 to 138 kPa)
Maximum	30 psig (207 kPa)
Supply Connection	1/8" in. (3 mm) FPT supplied with brass compression fitting for 1/4" (6 mm) OD tubing

Materials

Body	Die cast aluminum
Diaphragm	Silicone
Piston	Glass-filled nylon
Bearing	Glass-filled nylon
Shaft	CRS w/ nickel plating

Spring Ranges and Retracted/Extended Torque

(Based on 0 and 20 psi applied)

3–12 psi (21–83 kPa)	66/176 in.-lbs. (7/20 N•m) @ 90°
5–10 psi (34–69 kPa)	110/220 in.-lbs. (12/25 N•m) @ 90°
8–13 psi (55–90 kPa)	176/154 in.-lbs. (20/17 N•m) @ 90°
10–15 psi (220–110 kPa)	69/103 in.-lbs. (25/12 N•m) @ 90°
4–8 psi (28–55 kPa)	88/264 in.-lbs. (10/19 N•m) @ 90°

Temperature Limits

Operating	–20 to 250° F (–29 to 121° C)
Shipping	–40 to 250° F (–40 to 121° C)
Elevated	450° (232° C) for 30 minutes exposure

NOTE: If application requires operation near maximum temperature AND maximum pressure, the actuator should be piped in hard copper.

Models

MCP-5145 – X – YYY

"X" Spring Ranges and Retracted/Extended Torque

(Based on 0 and 20 psi applied, at 90°)

2: 3–12 psi; 66/176 in.-lbs. (21–83 kPa; 7/20 N•m)
3: 5–10 psi; 110/220 in.-lbs. (34–69 kPa; 12/25 N•m)
5: 8–13 psi; 176/154 in.-lbs. (55–90 kPa; 20/17 N•m)
6: 10–15 psi; 220/110 in.-lbs. (69–103 kPa; 25/12 N•m)
8: 4–8 psi; 88/264 in.-lbs. (28–55 kPa; 10/19 N•m)

"YYY" Bracket/Linkage

520:	Post mounted with clevis
208:	Right-angle mounted with ball joint
211:	Right-angle mounted with 1/2" crank arm
212:	Right-angle mounted with 3/8" crank arm



MCP-5160 Series

6" (Metal) Damper Actuator

Mounting Bracket, Clevis,
and Crank Arm Shown



The MCP-5160 is designed for large automatic air control dampers. It features a universal mounting bracket for mounting on dampers, butterfly valves and variable fan inlet vanes. **The metal body allows them to be used in ceiling plenums where local safety codes do not allow non-metallic actuators.**

The MCP-5160 has an 8 to 13 psi main spring for ample return power. Use in modulating or two-position applications with or without an adjustable start-point positive positioner.

The linkage is designed for angular adjustment for 60 to 120° of damper rotation at full stroke.

Item shown is model MCP-5160-9111.

Accessories and Repair Parts

CMC-1002	Metal Positive Positioner
VTD-1500	Positioner feedback arm
VTD-2256	5 psi span spring for CMC-1002
VTD-2266	10 psi span spring for CMC-1002
VTD-5002	Replacement linkage kit
VTD-9426	Replacement actuator diaphragm

SEE ALSO: The [MCP-0100/0200/0300/0400 Series](#) section, [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section. See also [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.

SEE ALSO: The interactive [Actuator Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

⚠ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.

Specifications

Effective Area	24.8 sq. in. (160 sq. cm)
Stroke	6" (152 mm)
Supply Pressure	0 to 20 psig (138 kPa) operating; 30 psig (207 kPa) maximum
Spring Range	8 to 13 psi (55 to 90 kPa)
Retracted/Extended Torque (Based on 0 & 20 psi applied)	576/504 in.-lbs. (65/57 N•m) @ 90°
Supply Connection	1/8" (3 mm) FPT, supplied with brass compression fitting for 1/4" (6 mm) OD copper tubing

Material

Body	Die-cast aluminum
Diaphragm	Neoprene
Piston	Glass-filled nylon
Shaft	CRS w/nickel plating

Damper Ratings at 1,000 fpm

Gradual	75 sq. ft. (7 sq. m)
Two Position	90 sq. ft. (8.36 sq. m)

Temperature Limits

Operating	-20 to 180° F (-29 to 82° C)
Shipping	-40 to 180° F (-40 to 82° C)

NOTE: If application requires operation near maximum temperature AND maximum pressure, install a tubing restraint at the actuator connection.

Models

	Mounting Bracket	Crankarm Linkage	Clevis Linkage Only	Metal Positioner
MCP-5160-5020			•	
MCP-5160-5101	•			
MCP-5160-5102				•
MCP-5160-5103		•		
MCP-5160-5111	•		•	
MCP-5160-5114	•			•
MCP-5160-9020		•		•
MCP-5160-9101	•			•
MCP-5160-9102			•	•
MCP-5160-9103		•		•
MCP-5160-9111	•		•	•
MCP-5160-9114	•			•

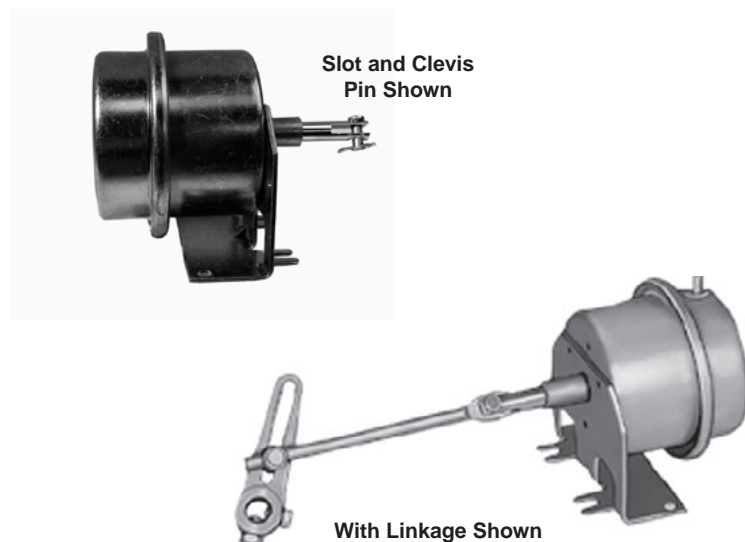
Actuator Assemblies for Butterfly Valves

MCP-5160-1020	6" x 6" no bracket w/ plastic positioner
MCP-5160-5020	6" x 6" no bracket w/ 8-13 psi spring
MCP-5160-5102	6" x 6" rear swivel w/ 8-13 psi spring
MCP-5160-5103	6" x 6" rear swivel w/ 8-13 psi spring
MCP-5160-5114	6" x 6" rear swivel w/ 8-13 psi spring
MCP-5160-9020	6" x 6", clevis, positioner
MCP-5160-9102	6" x 6" rear swivel w/ plastic positioner
MCP-5160-9103	6" x 6" rear swivel w/ plastic positioner
MCP-5160-9114	6" x 6" rear swivel w/ metal positioner



MCP-8031 Series

1-11/16" (Metal) Damper Actuators



This series of pneumatic actuators is designed to control small dampers in HVAC air handling systems. **The metal body allows them to be used in ceiling plenums where local safety codes do not allow non-metallic actuators.**

All models are furnished with a right-angle mounting bracket for mounting to the ductwork surface or damper frame. The actuator may be rotated in the bracket so the air connection can be placed where desired.

The end of the shaft on a basic actuator has a slot and (where noted) clevis pin to allow direct connection to the damper linkage of a VAV terminal. Actuators furnished with crank arm linkage may be used on 1/2" or 3/8" diameter damper shafts.

Accessories and Repair Parts

HPO-0005	Clevis pin
HPO-0006	Cotter pin

SEE ALSO: The [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section. See also [Actuator Sizing for Dampers Guide](#) in the [Reference](#) section.

SEE ALSO: MCP-8031-3101s packaged in [KIT-1000 Series Pneumatic Kits](#) in the [Compressed Air Accessories](#) section.

▲ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.

Specifications

Effective Area	8 sq. in. (52 sq. cm)
Stroke	1-11/16 in. (43 mm)
Supply Pressure	
Operating	0 to 20 psig (0 to 138 kPa)
Maximum	30 psig (207 kPa)
Supply Connection	3/16" in. (5 mm) OD metal nipple
Materials	
Body	CRS w/ zinc and dichromate
Diaphragm	Neoprene
Bearing	Bronze/Delrin (plastic)
Shaft	CRS w/ nickel plating

Spring Ranges and Retracted/Extended Torque

(Based on 0 and 20 psi applied)

3–12 psi (21–83 kPa)	20/54 in.-lbs. (2/6 N•m) @ 90°
5–10 psi (34–69 kPa)	34/67 in.-lbs. (4/8 N•m) @ 90°
8–13 psi (55–90 kPa)	54/47 in.-lbs. (6/5 N•m) @ 90°
4–8 psi (28–55 kPa)	20/81 in.-lbs. (2/9 N•m) @ 90°

Damper Rating @ 1,000 fpm (5.08 m/s)

Gradual	8 sq. ft. (0.74 sq. m)
Two-Position	10 sq. ft. (0.93 sq. m)

Temperature Limits

Operating	–20 to 180° F (–29 to 82° C)
Shipping	–40 to 180° F (–40 to 82° C)

NOTE: If application requires operation near maximum temperature AND maximum pressure, install a tubing restraint at the actuator connection.

Models

Bronze Bushing with Linkage for 1/2" Damper Shaft

MCP-8031-2111	3 to 12 psi spring range
MCP-8031-3111	5 to 10 psi spring range
MCP-8031-5111	8 to 13 psi spring range
MCP-8031-8111	4 to 8 psi spring range

Bronze Bushing with Linkage for 3/8" Damper Shaft

MCP-8031-2112	3 to 12 psi spring range
MCP-8031-3112	5 to 10 psi spring range
MCP-8031-5112	8 to 13 psi spring range
MCP-8031-8112	4 to 8 psi spring range

Bronze Bushing with Clevis and Cottor Pins

MCP-8031-2101	3 to 12 psi spring range
MCP-8031-3101	5 to 10 psi spring range
MCP-8031-5101	8 to 13 psi spring range
MCP-8031-8101	3 to 8 psi spring range

Bronze Bushing w/o Clevis Pin and Cottor Pin

MCP-8031-2100	3 to 12 psi spring range
MCP-8031-3100	5 to 10 psi spring range
MCP-8031-5100	8 to 13 psi spring range
MCP-8031-8100	3 to 8 psi spring range

Delrin Bushing w/o Clevis Pin and Cottor Pin

MCP-8031-2102	3 to 12 psi spring range
MCP-8031-3102	5 to 10 psi spring range
MCP-8031-5102	8 to 13 psi spring range
MCP-8031-8102	3 to 8 psi spring range

Delrin Bushing with Clevis and Cottor Pins and w/o Bracket

MCP-8031-3003	5 to 10 psi spring range
(Replaces MCP-8031-3002/3004) bronze bushing w/ clevis and cotter pins	

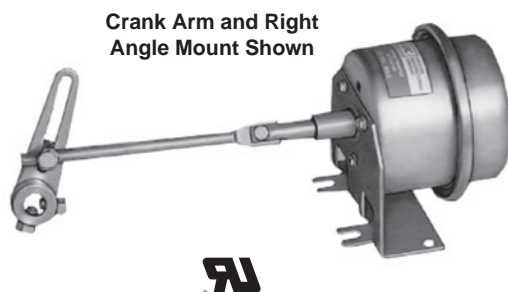
Bronze Bushing w/o Clevis Pin, Cottor Pin, or Bracket—special 1" stroke

MCP-8031-2099	3 to 8 psi spring range
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MCP-8035 Series

1-11/16" Smoke Damper Actuators



This series of actuators is designed for use in Smoke Control Systems. The metal-body actuators position automatic smoke dampers in ambient, or elevated temperatures up to 450°, for up to 30 minutes. The units may be used for gradual or two-position applications.

MCP-8035s are manufactured and tested to meet Underwriters Laboratories Standard UL 555S for use on "Leakage Rated Dampers For Use In Smoke Control Systems."

Models are available with either post or right angle bracket mounting. Right angle models are shipped with crank arms for either 1/2" or 3/8" damper shafts. A variety of spring and bracket/linkage combinations are available to meet most requirements.

Accessories and Repair Parts

HPO-0005	Clevis pin
HPO-0006	Cotter pin

SEE ALSO: The *(Pneumatic) Actuator Accessories and Repair Parts* section and the *Compressed Air Accessories* section. See also *Actuator Sizing for Dampers Guide* in the *Reference* section.

SEE ALSO: The interactive *Actuator Selection Tool* in the Products and Solutions section of the *KMC web site*.

Specifications

Effective Area	8 sq. in. (52 sq. cm)
Stroke	1-11/16 in. (43 mm)
Supply Pressure	
Operating	0 to 20 psig (0 to 138 kPa)
Maximum	30 psig (207 kPa)
Supply Connection	3/16" in. (4.8 mm) OD metal fitting
Spring Ranges and Retracted/Extended Torque	
(Based on 0 and 20 psi applied)	
3–12 psi (21–83 kPa)	20/54 in-lbs. (2/6 N•m @ 90°
5–10 psi (34–69 kPa)	34/67 in-lbs. (34/69 N•m) @ 90°
8–13 psi (55–90 kPa)	54/47 in-lbs. (55/90 N•m) @ 90°
4–8 psi (28–55 kPa)	88/264 in-lbs. (10/19 N•m) @ 90°

Materials

Body	CRS w/ zinc and dichromate
Diaphragm	Silicone
Piston	Glass-filled nylon
Bearing	Bronze
Shaft	CRS w/nickel plating

Temperature Limits

NOTE:

If application requires operation near maximum temperature AND maximum pressure, the actuator should be piped in hard copper.

Operating	–20 to 250° F (–29 to 121° C)
Shipping	–40 to 250° F (–40 to 121° C)
Elevated	450° (232° C) for 30 minutes exposure

Models

MCP-8035 – X – YYY

"X" Spring Ranges and Retracted/Extended Torque

(Based on 0 and 20 psi applied, at 90°)

2: 3–12 psi; 20/54 in-lbs.	(21–83 kPa; 2/6 N•m)
3: 5–10 psi; 34/67 in-lbs.	(34–69 kPa; 4/8 N•m)
5: 8–13 psi; 54/47 in-lbs.	(55–90 kPa; 6/5 N•m)
8: 4–8 psi; 27/81 in-lbs.	(28–55 kPa; 3/9 N•m)

"YYY" Bracket/Linkage

100:	without linkage
101:	with clevis pin and cotter pin
111:	1/2" crankarm
112:	3/8" crankarm

⚠ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.



Compressed Air Accessories

HAO-1001/1002/1211/1212/1213/1214 Standard and Miniature Pressure Regulators



Miniature



Standard

These pressure regulators provide fast, accurate response to flow demands and line pressure changes. These models are designed to regulate compressed air pressures in pneumatic control systems.

Each regulator includes two full-flow gauge ports, either of which can act as an additional regulated output port. The non-rising, push-to-lock adjustment knob maintains the outlet pressure setting. These units are designed to mount in-line or with the optional wall brackets (HAO-1004 or HAO-1015).

The compact, lightweight **HAO-1001/1002 miniature** regulators are especially suited for panel mounting or limited space applications. Their applications include regulation of branch air pressures in pneumatic control installations.

The **HAO-1211/1212/1213/1214 standard** regulators are general-purpose regulators designed for compressed air service in pneumatic control systems. Their applications include regulation of main air pressures, day/night setback, and summer/winter change over.

Accessories

See Accessories under HAO-1021/1022/1231/1232/1233/1234

Models and Specifications

MODEL	HAO-1001	HAO-1002	HAO-1211	HAO-1212	HAO-1213	HAO-1214
Main Port Size	1/8" FPT	1/4" FPT	1/4" FPT	1/4" FPT	3/8" FPT	3/8" FPT
Rated Flow *	10 scfm (4.7 L/s)	15 scfm (7.1 L/s)	80 scfm (38.8 L/s)			
Gauge Ports (2) Full Flow	1/8" FPT		1/4" FPT			
Maximum Inlet Pressure	400 psig (2758 kPa)		300 psig (2068 kPa)			
Outlet Pressure Range **	2–50 psig (14–345 kPa)		5–150 psig (34–1064 kPa)	5–60 psig (34–414 kPa)	5–150 psig (34–1034 kPa)	5–60 psig (34–414 kPa)
Operating Temperature Range ***	0 to 150° F (–18 to 66° C)		0 to 175° F (–18 to 79° C)			
Regulator Type	Relieving diaphragm					
Fluid	Compressed air only					
Materials	Zinc body, brass valve, nitrile elastomers, acetal bonnet		Aluminum body and bonnet, brass valve, nitrile elastomers			

* Approximate flow at 100 psig (689 kPa) inlet pressure and 25 psig (172 kPa) outlet pressure.

** Outlet pressure can be adjusted to 0 psig, but a regulator should not be used to control outlet pressure less than the minimum setpoint.

*** Air Supply must be dry enough to avoid ice formation at temperatures below 35° F (2° C).



HAO-1021/1022/1231/1232/1233/1234

Standard and Miniature Filter-Regulators



Miniature

Standard

These filter-regulators combine the functions of a filter and pressure regulator into one compact, space-saving unit for compressed air service in pneumatic control systems. The **HAO-1021/1022 are miniature models** especially suited to application where space is limited or panel mounting is required.

The unit's pressure regulator function provides fast, accurate response to flow demands and line pressure changes. This function is designed to regulate compressed air pressures in pneumatic control systems. Each unit includes two full-flow gauge ports, either of which can act as an additional regulated output port. The non-rising, push-to-lock adjustment knob maintains the outlet pressure setting.

The unit's filtering section includes a large surface, 5 micron filter, designed to remove most solid and liquid particles from the compressed air. Manual drain models use a finger-operated plunger (HAO-1021/1022) or a 1/4-turn drain cock (HAO-1231/1233). Automatic drain models (HAO-1232/234) activate when liquid accumulates in the filter bowl. Models equipped with a metal bowl, include a prismatic liquid level indicator.

Models and Specifications

MODEL	HAO-1021	HAO-1022	HAO-1231	HAO-1232	HAO-1233	HAO-1234
Main Port Size	1/8" FPT	1/4" FPT			3/8" FPT	
Filter Drain	Manual		Manual	Automatic	Manual	Automatic
Rated Flow*	11 scfm (5.2 L/s)	16 scfm (7.6 L/s)	70 scfm (33.0 L/s)			
Gauge Ports (2)	1/8" FPT		1/4" FPT			
Maximum Inlet Pressure	150 psig (1034 kPa)		250 psig (1724 kPa)			
Outlet Pressure Range**	5–100 psig (34–690 kPa)		5–150 psig (34–1034 kPa)	5–60 psig (34–414 kPa)	5–150 psig (34–1034 kPa)	5–60 psig (34–414 kPa)
Operating Temperature Range***	0 to 125° F (–18 to 52° C)		0 to 175° F (–18 to 79° C)			
Regulator Type	Relieving diaphragm					
Filter Element	5 micron					
Fluid	Compressed air only					
Materials	Zinc body, acetate bonnet, brass valve, nitrile elastomers, polycarbonate bowl, polypropylene filter element		Aluminum body, bonnet, and bowl, brass valve, nitrile/neoprene elastomers; sintered plastic filter element			

* Approximate flow at 100 psig (689 kPa) inlet pressure and 25 psig (172 kPa) outlet pressure.

** Outlet pressure can be adjusted to 0 psig, but a regulator should not be used to control outlet pressure less than the minimum setpoint.

*** Air Supply must be dry enough to avoid ice formation at temperatures below 35° F (2° C).

MINIATURE Regulator/Filter Accessories

HAO-1003: Plastic mounting nut to mount miniature (HAO-1001/1002/1021/1022) regulator/filter to the face of a panel



HAO-1004: Wall mounting bracket and plastic nut (same as HAO-1003) to mount above devices to wall or panel backplate



HAO-1023: Replacement 5 micron filter for HAO-1022/1201



STANDARD Regulator/Filter Accessories

HAO-1016: Plastic mounting nut to mount standard-sized regulator/filter to the face of a panel



HAO-1015: Wall mounting bracket and plastic nut (same as HAO-1016) to mount above devices to wall or panel backplate



HAO-1236: Replacement 5 micron filter for HAO-1231/1232/1233/1234





HAO-1207/1208

Quikclamps



HAO-1207/1208 Quikclamps can be field assembled with any combinations of the following air preparation products to provide modular installation capability:

- HAO-1211/1213 Pressure Regulators
- HAO-1212/1214 Pressure Regulators
- HAO-1231 through 1234 Filter-Regulators
- HAO-1241/1242/1243/1244 General Purpose Pre-Filter
- HAO-1251/1252/1253/1254 Oil Removal (Coalescing) Filters

Flanges on the sides of the products slide into V-grooves in the Quikclamp. Two O-rings in the Quikclamp provide a positive seal when the clamp is closed and the captive screw is tightened.

Products with 1/4" and 3/8" ports can be combined in the same module to reduce piping connections between the inlet and outlet of the assembly.

Models

HAO-1207	Quikclamp
HAO-1208	Quikclamp with wall bracket

Specifications

Quikclamp Maximum Pressure	250 psig (1724 kPa)
Quikclamp Maximum Temperature	175° F (79° C)

HAO-1241/1242/1243/1244

General Purpose Air Filters



HAO-1241 through 1244 series filters are used to remove solids, liquids and oil aerosols from the compressed air in pneumatic control applications. Automatic drain models operate unattended whenever separated liquid accumulates in the filter bowl. Models with manual drain have a 1/4 turn drain cock. All models include a prismatic liquid indicator on the filter bowl.

Supplied with a 5 micron filter element with large surface area, these filters are designed to remove most solid and liquid particles from the compressed air. This type of filter is typically installed upstream of oil removal or coalescing filters to serve as a pre-filter.

Models

HAO-1241	1/4" Port with Manual Drain
HAO-1242	1/4" Port with Automatic Drain
HAO-1243	3/8" Port with Manual Drain
HAO-1244	3/8" Port with Automatic Drain

⚠ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.

Specifications

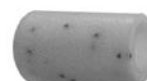
Rated Flow ^A	50 scfm (1415 l/s)
Fluid	Compressed Air
Filter Element	5 micron
Max. Pressure	250 psig (1724 kPa)
Operating Temperature ^B	0 to 175° F (–20 to 80° C)
Materials	Aluminum Body and Bowl, Neoprene/Nitrile Elastomers, Sintered Polypropylene Filter Element

A. Approximate flow at 100 psig (689 kPa) inlet pressure and 3 psig (21 kPa) pressure drop.

B. Air supply must be dry enough to avoid ice formation at temperatures below 35° F (2° C)

Accessories and Repair Parts

HAO-1245	Wall brackets used to hang HAO-1241/1242/1243/1244 on any flat surface
HAO-1236	Replacement 5 micron filter for HAO-1241/1242/1243/1244
HAO-1236	Replacement filter element for (obsolete) HAO-1031/1032/1033/1034/1041/1042/1043/1044
HAO-1259	Replacement filter element for (obsolete) HAO-1051/1052/1054
HAO-1070	Pop safety valve, factory-set at 30 ± 2 psi, setpoint range, 2–75 psi, 1/4" MPT connection.





HAO-1251/1252/1253/1254

Oil Removal Filters



HAO-1251 through 1254 series filters are used to remove solids, liquids and oil aerosols from the compressed air in pneumatic control applications. Automatic drain models operate unattended whenever separated liquid accumulates in the filter bowl. Models with manual drain have a 1/4 turn drain cock. All models include a prismatic liquid level indicator on the filter bowl.

These high efficiency filters provide *Air Quality Class 2 Hydrocarbon and Class 1 Particulate Removal* in accordance with ISO 8573-1. Particles down to 0.01 micron are removed, and the maximum remaining oil content of air leaving the filter is 0.01 ppm at 70° F (21° C) with an inlet concentration of 17 ppm. For maximum service life and efficiency, a pre-filter with 5 micron element should be installed upstream of oil removal filters.

Specifications

Rated Flow^A	26 scfm (736 l/s) ^B
Fluid	Compressed Air
Filter Element	Oil Removal
Max. Pressure	250 psig (1724 kPa)
Operating Temperature^C	0 to 150° F (–20 to 65° C)
Materials	Aluminum Body and Bowl; Neoprene/Nitrile Elastomers; Synthetic Fibre and Polyurethane Foam Filter Element
A	Approximate flow at 100 psig (689 kPa) inlet pressure and 3 psig (21 kPa) pressure drop.
B	Flow rate with all oil, water and other aerosols removed. Maximum flow to maintain consistent oil removal performance with saturated filter element is 21.2 scfm (600 l/s).
C	Air supply must be dry enough to avoid ice formation at temperatures below 35° F (2° C).

Models

HAO-1251	1/4" Port with Manual Drain
HAO-1252	1/4" Port with Automatic Drain
HAO-1253	3/8" Port with Manual Drain
HAO-1254	3/8" Port with Automatic Drain

Accessories and Repair Parts

HAO-1245	Wall brackets used to hang HAO-1251/1252/1253/1254 on any flat surface
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HAO-1259	Replacement Filter for HAO-1251/1252/1253/1254.
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HFO-0000 Series

Connectors, Restrictors, and Tubing Accessories

Gauge Connections

HFO-0001 Gauge L, holes accept #6 mounting screws, 1/8" FPT gauge port.



HFO-0008 Gauge L, holes accept #10 mounting screws, 1/8" FPT gauge port.



HFO-0012 Gauge T, holes accept #10 mounting screws, 1/8" FPT gauge port.



Restrictors

HFO-0010 Restrictor T, 14.4 scfm (0.5 scfh), 3/16" nipples for 1/4" OD poly tubing, beige



HFO-0022 Restrictor T, 28.8 scfm (1 scfh), 3/16" nipples for 1/4" OD poly tubing, gray



HFO-0038 Restrictor T, 57.6 scfm (2 scfh), 3/16" nipples for 1/4" OD poly tubing, red



HFO-0025 In-line restrictor, 28.8 scfm (1 scfh), 3/16" nipples for 1/4" OD poly tubing, gray



HFO-0029 In-line restrictor, 14.4 scfm (0.5 scfh), 3/16" nipples for 1/4" OD poly tubing, beige



HFO-0023 Restrictor insert, converts standard 1/4" compression fitting to 28.8 scfm (1 scfh) restrictor



HFO-0040 In-line restrictor, 0.046" diameter (for Carrier system)

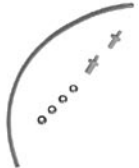


Tubing and Miscellaneous

HFO-0024 Tube assembly, 8" long 3/32" ID tube w/ inside spring and 2 eyelets



HFO-0028 Tube assembly, 8" long 3/32" ID tube w/ inside spring, 4 eyelets, and two 1/4" adapters



HFO-0002 Tubing header, 3/8" NPT inlet, 9 3/16" nipples for 1/4" OD poly tubing (each outlet sealed so exact quantity can be drilled out)



HFO-0003 Terminal strip, 10 3/16" nipples for 1/4" OD poly tubing. All nipples are open to opposite side



HFO-0013 Rubber cap for KMC standard 3/16" ports and 1/4" brass barb fittings



HFO-0014 Rubber cap for KMC standard 1/8" ports and 5/32" brass barb fittings



HFO-0006 In-line control air filter, 25 microns, 3/16" nipples for 1/4" OD poly tubing



⚠ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.



HFO-0100 Series

Brass Barb Fittings

Union, Barb to Compression

HFO-0101 1/4" Barb x 1/4" Compression



Bulkhead Union, Barb to Compression

HFO-0102 1/4" Barb x 1/4" Compression

HFO-0103 3/8" Barb x 3/8" Compression



Bulkhead Union, Barb to Barb

HFO-0104 1/4" Barb x 1/4" Barb



Union, Barb to Barb

HFO-0105 1/4" Barb x 1/4" Barb

HFO-0106 1/4" Barb x 5/32" Barb

HFO-0107 5/32" Barb x 5/32" Barb

HFO-0108 3/8" Barb x 1/4" Barb

HFO-0109 3/8" Barb x 3/8" Barb

HFO-0110 1/2" Barb x 3/8" Barb

HFO-0111 1/2" Barb x 1/2" Barb

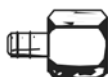


Connector, Barb to Female Pipe

HFO-0112 1/4" Barb x 1/8" FPT

HFO-0113 3/8" Barb x 1/8" FPT

HFO-0114 3/8" Barb x 1/4" FPT



Elbow, Barb to Female Pipe

HFO-0115 1/4" Barb x 1/8" FPT

HFO-0116 3/8" Barb x 1/4" FPT



Branch T, Barb to Female Pipe

HFO-0117 1/4" Barb x 1/4" Barb x 1/8" FPT



Gauge-T, Barb to Female Pipe (Drop-Eared T)

HFO-0118 1/4" Barb x 1/4" Barb x 1/8" FPT



Gauge-T, Barb to MPT to FPT

HFO-0119 1/4" Barb x 1/8" MPT X 1/8" FPT



Elbow, Barb to Barb

HFO-0120 1/4" Barb x 1/4" Barb

HFO-0121 3/8" Barb x 3/8" Barb

HFO-0122 1/2" Barb x 1/2" Barb



Connector, Barb to Male Pipe

HFO-0123 1/4" Barb x 1/8" MPT

HFO-0124 1/4" Barb x 1/4" MPT

HFO-0125 5/32" Barb x 1/8" MPT

HFO-0126 3/8" Barb x 1/8" MPT

HFO-0127 3/8" Barb x 1/4" MPT



Elbow, Barb to Male Pipe

HFO-0128 1/4" Barb x 1/8" MPT

HFO-0129 1/4" Barb x 1/4" MPT

HFO-0130 3/8" Barb x 1/8" MPT

HFO-0131 3/8" Barb x 1/4" MPT

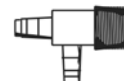


Run T, Barb to Male Pipe

HFO-0132 1/4" Barb x 1/8" MPT x 1/4" Barb

HFO-0133 3/8" Barb x 1/8" MPT x 3/8" Barb

HFO-0134 3/8" Barb x 1/4" MPT x 3/8" Barb



Branch T, Barb to Male Pipe

HFO-0135 1/4" Barb x 1/4" Barb x 1/8" MPT

HFO-0136 3/8" Barb x 3/8" Barb x 1/8" MPT

HFO-0137 3/8" Barb x 3/8" Barb x 1/4" MPT



Solder Connector, Barb to Solder

HFO-0138 1/4" Barb x 1/4" OD Solder



Union T, Barb to Barb to Barb

HFO-0139 1/4" Barb x 1/4" Barb x 1/4" Barb

HFO-0140 1/4" Barb x 1/4" Barb x 5/32" Barb

HFO-0141 5/32" Barb x 5/32" Barb x 5/32" Barb

HFO-0142 3/8" Barb x 3/8" Barb x 1/4" Barb

HFO-0143 3/8" Barb x 3/8" Barb x 5/32" Barb

HFO-0144 3/8" Barb x 3/8" Barb x 3/8" Barb

HFO-0145 1/2" Barb x 1/2" Barb x 1/4" Barb

HFO-0146 1/2" Barb x 1/2" Barb x 3/8" Barb

HFO-0147 1/2" Barb x 1/2" Barb x 1/2" Barb



Barb Plug

HFO-0148 1/4" Barb

HFO-0149 3/8" Barb



Connector, Double Barb to Male Pipe

HFO-0150 5/32" and 1/4" Barb x 1/8" MPT



NOTE: All barb and compression dimensions are OD of tube.



HFO-0300 Series

Brass Compression Fittings

Bulkhead Union, Tube to Tube

HFO-0301	1/4" Comp x 1/4" Comp
HFO-0302	3/8" Comp x 3/8" Comp



Union (Coupling), Tube to Tube

HFO-0303	3/16" Comp x 3/16" Comp
HFO-0304	1/4" Comp x 1/4" Comp
HFO-0305	3/8" Comp x 1/4" Comp
HFO-0306	3/8" Comp x 3/8" Comp



Union (Elbow), Tube to Tube

HFO-0307	1/4" Comp x 1/4" Comp
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Delrin Ferrule (Use with Brass Insert)

HFO-0308	1/4" (for 1/4" OD tube)
HFO-0309	3/8" (for 3/8" OD tube)
HFO-0310	1/2" (for 1/2" OD tube)



Brass Ferrule

HFO-0311	1/4" (for 1/4" OD tube)
HFO-0312	3/8" (for 3/8" OD tube)



Female Branch T, Tube to Female Pipe

1/4" Comp x 1/4" Comp x 1/8" FPT



Female Connector, Tube to Female Pipe

HFO-0314	3/16" Comp x 1/8" FPT
HFO-0315	1/4" Comp x 1/8" FPT
HFO-0316	1/4" Comp x 1/4" FPT
HFO-0317	3/8" Comp x 1/8" FPT
HFO-0318	3/8" Comp x 1/4" FPT



Female Elbow, Tube to Female Pipe

HFO-0319	1/4" Comp x 1/8" FPT
HFO-0320	1/4" Comp x 1/4" FPT



Gauge T, Tube to MPT to FPT

HFO-0321	1/4" Comp x 1/8" MPT x 1/8" FPT
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Brass Insert (Use With Delrin Ferrule)

HFO-0322	1/4" (Fits inside 1/4" OD Poly Tube)
HFO-0323	3/8" (Fits inside 3/8" OD Poly Tube)
HFO-0324	1/2" (Fits inside 1/2" OD Poly Tube)



Male Branch T, Tube to Male Pipe

HFO-0325	1/4" Comp x 1/4" Comp x 1/8" MPT
HFO-0326	1/4" Comp x 1/4" Comp x 1/4" MPT



Male Connector, Tube to Male Pipe

HFO-0327	3/16" Comp x 1/8" MPT
HFO-0328	1/4" Comp x 1/8" MPT
HFO-0329	1/4" Comp x 1/4" MPT
HFO-0330	1/4" Comp x 3/8" MPT
HFO-0331	3/8" Comp x 1/8" MPT
HFO-0332	3/8" Comp x 1/4" MPT
HFO-0333	3/8" Comp x 3/8" MPT
HFO-0334	3/8" Comp x 1/2" MPT



Adapter T, Tube to FPT to MPT

HFO-0335	1/4" Comp x 1/8" FPT x 1/8" MPT
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Male Elbow, Tube to Male Pipe

HFO-0336	3/16" Comp x 1/8" MPT
HFO-0337	1/4" Comp x 1/8" MPT
HFO-0338	1/4" Comp x 1/4" MPT
HFO-0339	3/8" Comp x 1/8" MPT
HFO-0340	3/8" Comp x 1/4" MPT
HFO-0341	3/8" Comp x 3/8" MPT
HFO-0342	3/8" Comp x 1/2" MPT



Male Run T, Tube to Male Pipe

HFO-0343	1/4" Comp x 1/8" MPT x 1/4" Comp
HFO-0344	1/4" Comp x 1/4" MPT x 1/4" Comp



Brass Nut

HFO-0346	1/4" (for 1/4" OD Tubing)
HFO-0347	3/8" (for 3/8" OD Tubing)



Needle Valve, Tube to Tube

HFO-0348	1/4" Comp x 1/4" Comp
HFO-0349	3/8" Comp x 3/8" Comp



Union T, Tube to Tube to Tube

HFO-0350	3/16" Comp x 3/16" Comp x 3/16" Comp
HFO-0351	1/4" Comp x 1/4" Comp x 1/4" Comp
HFO-0352	3/8" Comp x 3/8" Comp x 1/4" Comp
HFO-0353	3/8" Comp x 3/8" Comp x 3/8" Comp



Seal Plug Compression

HFO-0354	1/4" Plug, Nut and Ferrule for 1/4" OD tube
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NOTE: All barb and compression dimensions are OD of tube.



HFO-0500 Series Brass Pipe Fittings

Bushing, Male Pipe To Female Pipe

HFO-0501	1/4" MPT x 1/8" FPT
HFO-0502	3/8" MPT x 1/8" FPT
HFO-0503	3/8" MPT x 1/4" FPT
HFO-0504	1/2" MPT x 1/8" FPT
HFO-0505	1/2" MPT x 1/4" FPT
HFO-0506	1/2" MPT x 3/8" FPT
HFO-0507	3/4" MPT x 1/4" FPT



Coupling, Female Pipe To Female Pipe

HFO-0508	1/8" FPT x 1/8" FPT
HFO-0509	1/4" FPT x 1/4" FPT



Drop-Ear Elbow, Female Pipe

HFO-0510	1/8" FPT x 1/8" FPT
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Cross, Female Pipe

HFO-0511	1/8" FPT, 4 Sides
HFO-0512	1/4" FPT, 4 Sides



90° Elbow, Female Pipe To Female Pipe

HFO-0513	1/8" FPT x 1/8" FPT
HFO-0514	1/4" FPT x 1/4" FPT



Street L, Female Pipe To Male Pipe

HFO-0515	1/8" FPT x 1/8" MPT
HFO-0516	1/4" FPT x 1/4" MPT



Close Nipple, Male Pipe

HFO-0517	1/8" MPT x 1/8" MPT
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Long Nipple, Male Pipe

HFO-0518	1/8" MPT (1 1/2" long)
HFO-0519	1/4" MPT (1 1/2" long)
HFO-0520	1/4" MPT (3" long)
HFO-0521	3/8" MPT (2" long)
HFO-0522	1/2" MPT (2" long)



T, Female Pipe

HFO-0523	1/8" MPT
HFO-0524	1/4" MPT



Pipe Plug, Hex Head

HFO-0525	1/8" MPT
HFO-0526	1/4" MPT



Pipe Cap

HFO-0527	1/8" FPT
HFO-0528	1/4" FPT





ICI-1005/1007/1009

Pressure Gauges



The ICI-1000 Series Pressure Gauges are designed for reliable, long term service under rugged conditions. These gauges are intended for applications that are non-corrosive to brass. Applications include measuring pressures in pumps, compressors, hydraulic and pneumatic systems.

The ICI-1000 gauges are stem mounted and feature a two inch dial face.

Specifications and models

Model	Mounting	Connection	Range
ICI-1005	Stem	1/8" MPT center back	0–30 psi (207 kPa)
ICI-1007		1/4" MPT center back	0–30 psi (207 kPa)
ICI-1009			0–160 psi (1103 kPa)

ICI-3102

Receiver Gauge



This 3-1/2" receiver gauge is designed for use with a 3 to 15 psi input air signal. The gauge's drawn steel case with plastic lens has a copper alloy Bourdon tube assembly, internal stops for the needle, and a chrome-plated snap ring. It is supplied with U-clamp assembly for panel mounting. A zero adjustment screw on the pointer is available for accurate recalibration if required.

A wide range of dial overlay labels (see below) are available for many common applications. When ordering, specify ranges to match KMC transmitters.

Specifications

Dial Size	3-1/2"
Connections	1/4" barb center back
Material	Drawn steel case Glass lens Copper-alloy Bourdon tube assembly Chrome-plated snap ring for flush mount
Accuracy	ANSI Std. B40. 1-1974 2% of span between 25% and 75% of scale; 3% of span over rest of scale.



KIT-1000 Series Pneumatic Repair Kits

To make pneumatic repairs and upgrades as easy as possible, we have bundled our popular devices and accessories into cost-effective, convenient repair kits for the most common applications. The kits are detailed below. (See also more detailed descriptions of individual products in their respective sections.)

Models

KIT-1001 Cooling Only

- “Universal” Reset Volume Controller (CSC-3011-10)
- Two-Pipe Room Thermostat, Direct Acting (CTC-1621), with Scale Plate Options
- Damper Actuator (5–10 psi spring range) with Metal Body (MCP-8031-3101)
- Thermostat Universal Upgrade Kit (HMO-5500)
- Tube Assemblies, 8-inch, with Eyelets and Adaptors (from HFO-0028)
- Screwdriver, Flat Blade and Hex Ends, with KMC Logo (SP-001)
- Product Installation Guides and Application Guide



KIT-1002 Fan Powered and Electric Reheat

- “Universal” Reset Volume Controller (CSC-3011-10)
- Two-Pipe Room Thermostat, Direct Acting (CTC-1621), with Scale Plate Options
- Damper Actuator (5–10 psi spring range) with Metal Body (MCP-8031-3101)
- (3) Pneumatic-Electric Relays, SPDT (CCE-1001)
- Thermostat Universal Upgrade Kit (HMO-5500)
- Tube Assemblies, 8-inch, with Eyelets and Adaptors (from HFO-0028)
- Screwdriver, Flat Blade and Hex Ends, with KMC Logo (SP-001)
- Product Installation Guides and Application Guide





KIT-1003 Fan Powered and Hot Water Reheat (up to 22,300 BTUs Capacity)

- “Universal” Reset Volume Controller (CSC-3011-10)
- Two-Pipe Room Thermostat, Direct Acting (CTC-1621), with Scale Plate Options
- Damper Actuator (5–10 psi spring range) with Metal Body (MCP-8031-3101)
- Modulating Reheat Control Valve, 1/2-inch, 2-Way, N.O., 1.0 Cv, 3–8 psi (VCZ-4102AMBD)
- Pneumatic-Electric Relay, SPDT (CCE-1001)
- Thermostat Universal Upgrade Kit (HMO-5500)
- Tube Assemblies, 8-inch, with Eyelets and Adaptors (from HFO-0028)
- Screwdriver, Flat Blade and Hex Ends, with KMC Logo (SP-001)
- Product Installation Guides and Application Guide



KIT-1004 Fan Powered and Hot Water Reheat (up to 55,800 BTUs Capacity)

- “Universal” Reset Volume Controller (CSC-3011-10)
- Two-Pipe Room Thermostat, Direct Acting (CTC-1621), with Scale Plate Options
- Damper Actuator (5–10 psi spring range) with Metal Body (MCP-8031-3101)
- Modulating Reheat Control Valve, 1/2-inch, 2-Way, N.O., 2.5 Cv, 3–8 psi (VCZ-4102BMBD)
- Pneumatic-Electric Relay, SPDT (CCE-1001)
- Thermostat Universal Upgrade Kit (HMO-5500)
- Tube Assemblies, 8-inch, with Eyelets and Adaptors (from HFO-0028)
- Screwdriver, Flat Blade and Hex Ends, with KMC Logo (SP-001)
- Product Installation Guides and Application Guide



KIT-1005 Differential Air Pressure Flow Sensors (1 each)

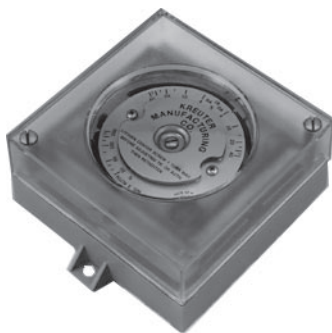
- 3 ⁵/₃₂ inches long (80 mm) sensor, 1 sensing point (SSS-1002)
- 5 ¹³/₃₂ inches long (137 mm) sensor, 2 sensing points (SSS-1003)
- 7 ²¹/₃₂ inches long (195 mm) sensor, 3 sensing points (SSS-1004)
- 9 ²⁹/₃₂ inches long (252 mm) sensor, 4 sensing points (SSS-1005)
- Installation Guide



Controllers and Switches

CCC-1001

Receiver Controller, Dual Input with Remote Setpoint Adjustment, Low Volume



These receiver controllers are pneumatic proportional control devices. Use with pneumatic transmitters or any 3 to 15 psig pneumatic device, for controlling valves and actuators in HVAC systems.

Proportional band action, authority and setpoint are easily adjustable. Remote setpoint adjustment may be used if the application dictates.

With all the inputs and features included, it is particularly suitable for all control applications requiring a receiver controller, including "Low-Limit" applications.

SEE ALSO: The [Compressed Air Accessories](#) section.

Specifications

Pressure

Supply	20 psig (138 kPa)
Maximum	30 psig all ports (207 kPa)

Air Consumption

43.2 scim maximum (11.8 mL/s)

Setpoint

1.75 psi (12 kPa)/rev adjustable

Throttling Range

4% to 40% adjustable

Action

Direct or reverse

Authority

20% to 200% of primary input

Remote Setpoint Adjustment ±10% of primary input span, direct acting

Inputs

Port "1"	Primary signal 3 to 15 psig (21 to 103 kPa)
Port "2"	Remote setpoint adjustment 3 to 15 psig
Port "3"	Secondary signal 3 to 15 psig Port "B" branch

Output

Material

Base	Flame retardant plastic
Levers, Flexures	Stainless steel
Diaphragms	Neoprene
Finish	Beige with clear cover

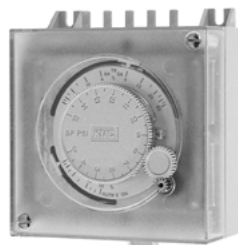
Temperature Limits

Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)



CCC-1002

Receiver Controller, Dual Input with Remote Setpoint Adjustment, High Volume



The CCC-1002 is a pneumatic, proportional control device. Use with pneumatic transmitters or other 3 to 15 psig devices, for controlling valves and actuators in HVAC systems. With the inputs and features included, it is particularly suitable for most control applications requiring a receiver controller. For "Low Limit" applications, use the CCC-1001 Receiver Controller.

Proportional band action, authority and setpoint are easily adjustable. Remote setpoint adjustment may be used if the application dictates. The integral setpoint dial applies to port "1" and is marked from 3 to 15 psi. Adhesive dials are available to match the ranges of each KMC pneumatic transmitter. Order dials separately.

The KMC CCC-1002 can replace single/dual-input receiver/controllers such as:

- Honeywell RP908A and RP908B
- Johnson T-9000 and T-5801/5802
- Siemens 185 and 195 series
- Barber-Colman (TAC) RKS-1001/2001/3002/4002
- Robertshaw P341 and 2341

NOTE: External restrictor HFO-0022 might be required if replacing a receiver/controller using internal restrictors.

SEE: The [Pneumatic and Electronic Cross-Reference](#) section for replacements of competitive products.

Specifications

Supply Pressure	20 psig (138 kPa), 30 psig max. (207 kPa)
Air Consumption	43.2 scim maximum (11.8 mL/s)
Setpoint	1.75 psi (12 kPa)/rev adjustable
Throttling Range	4% to 40%
Action	Direct or reverse, field selectable
Authority	20% to 200% of primary signal input
Remote Setpoint Adjustment	±10% of primary input span, direct acting

Inputs

Port "1"	Primary signal 3 to 15 psig (21 to 103 kPa)
Port "2"	Remote setpoint adjustment 3 to 15 psig
Port "3"	Secondary signal 3 to 15 psig Port "B" branch

Output Material

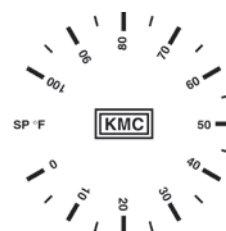
Base	Flame retardant plastic
Levers, flexures	Stainless steel
Diaphragms	Neoprene
Finish	Beige with clear cover

Temperature Limits

Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

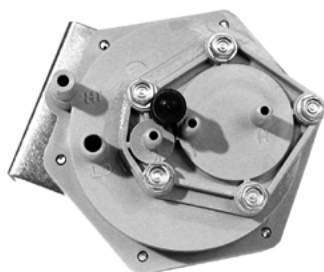
Accessory Setpoint Dials

HDO-2333	0 to 100° F (shown)
HDO-2334	50 to 150° F
HDO-2335	50 to 100° F
HDO-2336	40 to 240° F
HDO-2337	-40 to 160° F



CSC-1001

Constant Volume Controller



The CSC-1001 is designed for use on constant volume boxes in HVAC systems. The CSC-1001 has two low volume output connections allowing it to be used in two different modes of operation:

- A constant volume controller without override capability from the thermostat.
- A high limit controller that assumes control of a VAV terminal if the thermostat calls for too much flow.

Specifications

Setpoint Range	0 to 1" wc (249 kPa)
Proportional Band	0.04" wc (10 Pa)
Supply Pressure	20 psig (138 kPa) operating; 30 psig (207 kPa) maximum
Air Consumption	14.4 scim (3.93 mL/s) @ 20 psig
Action	For NO dampers only; requires D.A. thermostat for heating, R.A. for cooling
Material	ABS
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Accessories

HFO-0006	In-line control air filter, 25 microns
HFO-0013	C/H port rubber cap replacement
SSS-1000	Differential pressure flow sensors

SEE ALSO: The [Compressed Air Accessories](#) section.



CSC-2000 Series Reset Volume Controllers



With 0–10 Molded Plastic Dial
(Mount with Face Up Only)



Without Molded Dial

The pneumatic CSC-2000 series are designed for use on VAV terminal units in HVAC systems. These are differential-pressure, sub-master controllers with adjustable minimum and maximum airflow settings. A master controller, typically a room thermostat, resets the CSC velocity setpoint.

Direct acting models are for normally open VAV terminal units. Reverse acting are for normal closed VAV terminal units.

Each is equipped with separate adjustment knobs for minimum and maximum airflow settings. All models should be calibrated with the use of airflow measuring equipment.

Specifications

Output Sensitivity

0–1" Range Units	5 psig/.02" wc (35 kPa/5 Pa)
0–2" Range Units	5 psig/.04" wc (35 kPa/10 Pa)

Main Pressure Air

15 to 30 psig (103 to 207 kPa)

Maximum Signal Pressure

6" wc (1493 Pa) applied to either port (X or Y)

Material

Flame-retardant ABS (beige or gray)

Temperature Limits

Operating	40 to 120° F (4 to 49° C)
Shipping	–40 to 140° F (–40 to 60° C)

NOTE: See also the CSC-2000 Series Pneumatic VAV Reset Volume Controllers Applications Guide for operation principles, calibration/troubleshooting procedures, and sample applications. It is available for download from the CSC-2000 page on the KMC Controls web site.

NOTE: The CSC-2007/2017/2008/2018 models with 14.4 scim air consumption are primarily for replacing Trane, Carnes, and other controllers with small restrictors.

Accessories

HFO-0006	In-line control air filter, 25 microns
HMO-4505	Mounting bracket replacement
SSS-1000	Differential pressure flow sensors

SEE: The *Pneumatic and Electronic Cross-Reference* section for replacements of competitive products.

Models Direct Acting (Beige Controllers) for Normally Open Dampers							
Model	Thermostat Required		Setpoint Range		Reset Pressure Band	Air Consumption	0–10 Molded Plastic Dial
	For Cooling	For Heating	Minimum	Maximum			
CSC-2001	Direct Acting	Reverse Acting	0 to 1.0" wc (249 Pa)	Min. plus 1.0" wc (249 Pa)	8 ±0.5 to 13 psig (55 ±3.5 to 90 kPa)	14.4 scim @ 20 psig (3.93 mL/s @ 138 kPa)	Yes
CSC-2003						14.4 scim @ 20 psig (3.93 mL/s @ 138 kPa)	No molded plastic dial—has paper label instead
CSC-2007						11.5 scim @ 20 psig (3.1 mL/s @ 138 kPa)	
CSC-2009			0 to 2.0" wc (498 Pa)	Min. plus 2.0" wc (498 Pa)		14.4 scim @ 20 psig (3.93 mL/s @ 138 kPa)	
CSC-2017						11.5 scim @ 20 psig (3.1 mL/s @ 138 kPa)	
Reverse Acting (Gray Controllers) for Normally Closed Dampers							
Model	Thermostat Required		Setpoint Range		Reset Pressure Band	Air Consumption	0–10 Molded Plastic Dial
	For Cooling	For Heating	Minimum	Maximum			
CSC-2002	Reverse Acting	Direct Acting	0 to Max.	0 to 1.0" wc (249 Pa)	3 ±0.5 to 8 psig (21 ±3.5 to 55 kPa)	14.4 scim @ 20 psig (3.93 mL/s @ 138 kPa)	Yes
CSC-2004						14.4 scim @ 20 psig (3.93 mL/s @ 138 kPa)	No molded plastic dial—has paper label instead
CSC-2008						11.5 scim @ 20 psig (3.1 mL/s @ 138 kPa)	
CSC-2010			0 to Max.	0 to 2.0" wc (498 Pa)		14.4 scim @ 20 psig (3.93 mL/s @ 138 kPa)	
CSC-2018						11.5 scim @ 20 psig (3.1 mL/s @ 138 kPa)	



CSC-3000 Series Reset Volume Controllers



(For the CSC-3501/3505
see the next page)

These “universal” reset volume controllers are designed for use on heating or cooling systems with normally open or normally closed VAV terminal units. They are differential-pressure, sub-master air velocity controllers. Each is equipped with separate adjustment knobs for minimum and maximum airflow setpoints. Models are available with various reset start points. A master controller, typically a room thermostat, resets the CSC between the minimum and maximum velocity setpoints.

Their universal design is intended for new or replacement applications that call for direct or reverse acting reset on normally open or normally closed VAV terminal units, using direct or reverse acting thermostats. They can replace many other pressure independent controllers—see the [Pneumatic and Electronic Cross-Reference](#) in the [Reference](#) section.

Models (*CSC-3017-16 is identical to the CSC-3011-10, but it does not come with a mounting bracket or the KMC logo)						
Model #	Reset Start Point Factory Set (all field-adjustable 0–10 psig)	Differential Pressure	Min. Setpoint	Max. Setpoint	Output Sensitivity	Air Consumption
CSC-3011-10 CSC-3017-16*	8 psig (55 kPa)	0 to 1.0" wc (249 Pa)	0 to 1.0" wc (249 Pa)	Min. to 1.0" wc (249 Pa)	5 psi/0.02" wc (35 kPa/5 Pa)	28.8 scim @ 20 psig (7.87 mL/s @ 138 kPa)
CSC-3021-10	3 psig (21 kPa)					
CSC-3023-10	10 psig (69 kPa)					
CSC-3026-10	3 psig (21 kPa)	0 to 2.0" wc (498 Pa)	0 to 2.0" wc (498 Pa)	Min. to 2.0" wc (498 Pa)	5 psi/0.04" wc (35 kPa/10 Pa)	
CSC-3016-10	8 psig (55 kPa)					
CSC-3025-10						
						46.1 scim @ 20 psig (12.59 mL/s @ 138 kPa)

Specifications

Damper Action	Factory set @ NO, field adjustable for NC or NO
Thermostat Action	Direct or reverse action for heating or cooling
Main Air Pressure	15 to 30 psig (103 to 207 kPa)
Maximum Signal Pressure	6" wc (1493 Pa) applied to either port (H or L)
Reset Span	Factory set @ 5 psig (35 kPa)
Material	Flame-retardant plastic
Weight	11 oz. (312 grams)
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	–40 to 140° F (–40 to 60° C)

NOTE: See also the CSC-3000 Series Pneumatic VAV Reset Volume Controllers Applications Guide for operation principles, calibration/troubleshooting procedures, and sample applications. It is available for download from the CSC-3000 page on the KMC Controls web site.

⚠ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.

NOTE: The CSC-3014 is designed to work with KMC CTC-2000/2100 series thermostats (which are now obsolete). The CSC-3014 Reset Volume Controller is currently being sold only as a replacement for existing units. For new pneumatic installations, contact KMC for assistance.

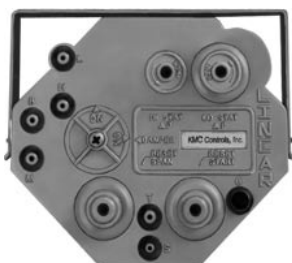
Accessories and Repair Parts

HFO-0006	In-line control air filter, 25 microns, 3/16" nipples for 1/4" OD poly tubing
HFO-0014	G port rubber cap replacement
HMO-4508	Mounting bracket replacement
ICI-1005	Pressure gauge
SSS-1002	One sensing point; 3-5/32" (80 mm) length
SSS-1003	Two sensing points; 5-13/32" (137 mm) length
SSS-1004	Three sensing points; 7-21/32" (195 mm) length
SSS-1005	Four sensing points; 9-29/32" (252 mm) length

SEE ALSO: The [Compressed Air Accessories](#) section.

SEE ALSO: These controllers packaged in [KIT-1000 Series Pneumatic Kits](#) in the [Compressed Air Accessories](#) section.

SEE: The [Pneumatic and Electronic Cross-Reference](#) section for replacements of competitive products.

**CSC-3501/3505/3525****Linear Reset Volume Controllers**

These submaster air velocity controllers are designed for use on VAV terminal units in HVAC systems where linear reset is necessary. They are ideal for dual duct constant volume and exhaust or supply tracking systems. The CSC-3501 has a one-inch range, and the CSC-3505 has a two-inch range.

Velocity setpoint is linearly reset between a preset minimum and maximum limit by a master controller, usually a room thermostat.

These multifunctional controllers are used for either direct or reverse acting reset for normally open or closed terminal units. The reset start point and reset span are factory-set but field adjustable. Once set, the factory span is always constant regardless of the minimum and maximum limit settings.

Models

For the differences between the CSC-3501 (one-inch range) and CSC-3505 (two-inch range), see the Specifications section.

The CSC-3525-10 for Trane boxes is a version of the CSC-3505-10 with 46.1 air consumption. It replaces the CSC-3525-20.

Specifications

Differential Pressure Range	
CSC-3501	0 to 1" wc (249 Pa)
CSC-3505	0 to 2" wc (498 Pa)
Minimum Setpoint Range	
CSC-3501	0 to 1" wc (249 Pa)
CSC-3505	0 to 2" wc (498 Pa)
Maximum Setpoint Range	
CSC-3501	Minimum to 1" wc (249 Pa)
CSC-3505	Minimum to 2" wc (498 Pa)
Maximum Signal Pressure	
6.0" wc (1494 Pa) applied to either port (H or L)	
Reset Pressure Span	
Factory set @ 5 psig (34 kPa), field adjustable 0 to 7 psig (48 kPa)	
Reset Start Point	
Factory set @ 8 psig (55 kPa), field adjustable 0 to 10 psig (69 kPa)	
Output Sensitivity	
5 psi/.02" wc (34 kPa/5 Pa)	
Damper Action	
Factory set @ NO, field adjustable for NC/NO	
Thermostat Action	
Direct or reverse acting for cooling or heating applications	
Main Air Pressure	
15 to 30 psig (103 to 207 kPa)	
Air Consumption	
43.2 scim @ 20 psig (11.8 mL/s @ 138 kPa)	
Material	
Flame retardant plastic	
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Accessories and Repair Parts

HFO-0006	In-line control air filter, 25 microns, 3/16" nipples for 1/4" OD poly tubing
HFO-0014	G port rubber cap replacement
HMO-4508	Mounting bracket replacement
SSS-1002	One sensing point; 3-5/32" (80 mm) length
SSS-1003	Two sensing points; 5-13/32" (137 mm) length
SSS-1004	Three sensing points; 7-21/32" (195 mm) length
SSS-1005	Four sensing points; 9-29/32" (252 mm) length



YMC-Series

Pneumatic Selector and Gradual Switches



This series of YMC switches consists of manually actuated gradual switches and selector switches. Models depicted in photograph are shown with various scale plates.

The YMC-1001 is designed for delivering a variable, selected air pressure from the branch line to a remote device. It is used in pneumatic control circuits for remotely positioning other devices as well as remote setpoint adjustment for receiver-controllers.

Typical applications for the selector switches (YMC-2000/3000/6001 series) include diverting and supply/exhaust of pneumatic signals to other devices.

The YMC-2001/2002 models have two positions, YMC-3001/3002 have three positions, and the YMC-6001 has six positions.

Scale plates and mounting bracket are ordered separately. The bracket is available for panel mounting if desired.

Specifications

Supply Pressure	Maximum 30 psig (207 kPa)
Air Capacity	
YMC-1001:	28.8 scim (7.87 mL/s)
YMC-2000/3000/6001 series:	576 scim (157.4 mL/s)
Air Consumption	
YMC-1001:	28.8 scim (7.87 mL/s)
YMC-2000/3000/6001 series:	None
Output Range (YMC-1001 only)	
	2 to 18 psig (14 kPa to 124 kPa) = 0 to 100%
Branch Ports (YMC-1001 only)	
	B1 and B2 internally connected, cap if unused
Connections	3/16" (5 mm) nipples for 1/4" (6 mm) OD polyethylene tubing
Material	
Housing	Beige flame retardant plastic
Scale Plates	Satin aluminum with easy-to-read lettering. Pressure sensitive backing
Temperature Limits	
	Operating 40 to 120° F (4 to 49° C) Shipping -40 to 140° F (-40 to 60° C)

SEE ALSO: The *(Pneumatic) Relays, P-E and E-P* section, the *(Pneumatic) Controllers and Switches* section, and *XEC-3001/3002/3004* and *YEC-1101* in the *(Electronic) Transducers* section.

Models

YMC-1001	Gradual switch, 2–18 psi
YMC-2001	2-position switch, DPDT, non-vented
YMC-2002	2-position switch, DPDT, vented
YMC-3001	3-position switch, non-vented
YMC-3002	3-position switch, vented
YMC-6001	6-position, non-vented

Accessories

HDO-1101	Blank scale plate (for all models)
HMO-4506	Surface mounting bracket

(For scale plates, see appropriate section)



Available Scale Plates for YMC-1001

HDO-1102	0–100%
HDO-1103	Increase with CW arrow
HDO-1104	Increase with CCW arrow

Available Scale Plates for YMC-2001/2002

HDO-1201	OCC-UNOCC
HDO-1202	SUMMER-WINTER
HDO-1203	ON-OFF
HDO-1204	ON-AUTO
HDO-1205	OPEN-CLOSE
HDO-1206	1-2
HDO-1207	DAY-NIGHT
HDO-1208	HEAT-COOL
HDO-1209	MANUAL-AUTO
HDO-1210	MIN-MAX

Available Scale Plates for YMC-3001/3002

HDO-1301	1-2-3
HDO-1302	ON-AUTO-OFF
HDO-1303	DAY-AUTO-NIGHT
HDO-1304	OCC.-AUTO-UNOCC.
HDO-1305	HEAT-AUTO-COOL
HDO-1306	SUMMER-AUTO-WINTER
HDO-1307	OPEN-AUTO-CLOSE

Available Scale Plates for YMC-6001

HDO-1601	1-2-3-4-5-6
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NOTE: Scale plates are sold in packs of ten.



Relays, Logic

HMO-4500 Series

Accessories For Pneumatic Logic Relays



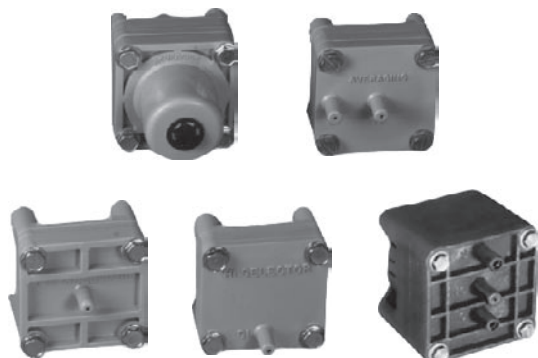
Models

HMO-4507	Replacement bracket and retaining ring for any RCC-1500 series relay
HMO-4511	Replacement bracket for any RCC-1000 series relay

SEE ALSO: The [Compressed Air Accessories](#) section.



RCC-1000 Series Relays



RCC-1001/1012/1101/1112

Pilot capacity *reversing relays* designed for reversing a proportional signal from a controlling device. Factory adjusted to decrease branch line pressure as the input pressure increases. Comes with a bias adjustment and two factory calibration points (8 and 9 psi).

RCC-1002/1102

Averaging relays designed for applications that do not require large amounts of output air volume. Suitable for room or zone applications such as VAV terminals. Use where desired output signal to the controlled device is to be the average of two source signals.

RCC-1006/1106

Low pressure selector relays are designed to control the final device from the lowest of two pneumatic signals. Can also be used as a signal repeater.

RCC-1008/1108

High pressure selector relays are designed to select the greatest of two pneumatic signals to control the final device. These signals must be supplied from "relieving" type devices like thermostats, receiver-controllers, etc.

RCC-1009/1109

Adjustable *diverting/switching relays* are SPDT devices and divert one signal to either of two branch circuits *or* select one of two inputs and transmit it to another control device. They can also be used to feed or exhaust a circuit.

RCC-1013

Signal repeater relay, typically used for Trane VAV boxes with CSC-2000 series.

SEE: The [Pneumatic and Electronic Cross-Reference](#) section for replacements of competitive products.

Specifications

Supply Air Pressure	20 psig (138 kPa) nominal 30 psig (207 kPa) maximum
Air Capacity	RCC-1001/1012/1101/1112 17.3 scim (4.7 mL/s) @ 20 psig (138 kPa) RCC-1009/1109 432 scim (117.9 mL/s) @ 20 psig (138 kPa) RCC-1008/1018 260 scim (70.6 mL/s) @ 5 psig (34.5 kPa) pressure drop
Setpoint Range	RCC-1009/1109 3 to 23 psig (21 to 159 kPa)
Air Consumption	RCC-1001/1012 17.3 scim (4.7 mL/s) RCC-1101/1112 17.3 scim (4.7 mL/s) RCC-1002/1102 on main, 0 on signals RCC-1006/1106 Port S2: 0 to 21.6 scim (5.9 mL/s) RCC-1008/1108 None RCC-1009/1109 None
Bias Adjustment	RCC-1001/1012, RCC-1101/1112: ± 15 psi (103 kPa)
RCC-1009/1109	Switching Differential: 5 psig (34 kPa) Action below setpoint: C and NO connected; Action above setpoint: C and NC connected Factory Setpoint: 18 to 23 psig (124 to 159 kPa)
Connections	3/16" (5 mm) fittings for 1/4" (6 mm) OD polyethylene tubing
Material	RCC-1009, 1109: glass-filled nylon; All other models beige ABS, Flame retardant plastic
Temperature Limits	Operating 40 to 120° F (4 to 49° C) Shipping -40 to 140° F (-40 to 60° C)

Models

Without bracket

RCC-1001	Reversing; 9 psi calibration
RCC-1002	Averaging
RCC-1006	Low pressure selector
RCC-1008	High pressure selector
RCC-1009	Diverting; SPDT
RCC-1012	Reversing; 8 psi calibration
RCC-1013	Signal repeater

Bracket included

RCC-1101	Reversing; 9 psi calibration
RCC-1102	Averaging
RCC-1106	Low pressure selector
RCC-1108	High pressure selector
RCC-1109	Diverting; SPDT
RCC-1112	Reversing; 8 psi calibration

Accessories

HMO-4511	Replacement bracket
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**RCC-1010****Adjustable Ratio Relay**

The RCC-1010 is an adjustable ratio relay designed for sequencing pneumatic control components in HVAC systems. It can reduce the rate at which a pneumatic device responds to a control signal. This ratio may be adjusted on a percentage basis from zero on up to 1 to 1. This feature can be used to reduce instability of a final control device by effectively increasing the proportional band of the circuit.

The output of the device can be biased in a positive direction to increase the output of the relay. This allows the ratio operation to begin at a specific pressure, such as the start point of a pneumatic actuator.

Specifications

Maximum Pressure	30 psig (207 kPa)
Air Consumption	14.4 scim (3.93 mL/s)
Ratio Range	0 to 1
Supply Air	20 psig \pm 5 psi (138 kPa \pm 34 kPa)
Bias Adjustment	0 to 8 psi (55 kPa)
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping -40 to 140° F (-40 to 60° C)

⚠ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.

RCC-1111**Multiple Input, High and Low Pressure Selector Relay**

The RCC-1111 multiple input selector relays are designed for selection of the lowest and/or highest of six different pneumatic inputs. They are restricted devices designed for pilot-duty operation. If a large output volume is required, a volume booster relay should be used. For applications requiring a "low" output, the integral selector valve must be set for the correct number of inputs. If a "high" output is required, this dial does not need be set. The RCC-1111 can be mounted with a supplied right angle bracket.

Specifications

Air Consumption	28.8 scim (7.85 mL/s)
Supply Pressure	
Operating	20 psig (138 kPa)
Maximum	30 psig (207 kPa)
Connections	3/16" (5 mm) nipples for 1/4" (6 mm) OD polyethylene tubing
Material	Flame retardant plastic
Temperature Limits	Operating: 40 to 120° F (4 to 49° C) Shipping -40 to 140° F (-40 to 60° C)

Models

RCC-1111	6 input high/low selector relay with bracket
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SEE ALSO: The [Compressed Air Accessories](#) section.

SEE: The [Pneumatic and Electronic Cross-Reference](#) section for replacements of competitive products.

**RCC-1501/1502/1503/1504****Reversing Relay, Adjustable**

These main valve capacity reversing relays are designed for reversing a proportional signal from a controlling device. They're factory adjusted to decrease the branch line pressure as the input pressure increases. A bias adjustment is provided to retard or advance the output if required. Use where the desired output signal to the controlled device is to be the reverse of the source signal. Their small size and light weight make them suitable for in-line mounting.

Accessories

HMO-4507	Replacement bracket and retaining ring for any RCC-1500 series relay
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SEE: The [Pneumatic and Electronic Cross-Reference](#) section for replacements of competitive products.

Specifications

Maximum Pressure	30 psig (207 kPa)
Connections	3/16" (5 mm) (6 mm) OD polyethylene tubing
Air Consumption	14.4 scim (3.93 mL/s)
Air Capacity	1728 scim (473 mL/s) @ 20 psig (138 kPa)
Material	Flame-retardant plastic
Weight	
RCC-1501/1502	2-1/4 oz. (64 grams)
RCC-1503/1504	3-1/2 oz. (99 grams)
Mounting	
RCC-1501/1503	In-line via air connections
RCC-1502/1504	With mounting bracket
Factory Settings	8 psig in/ 8 psig out (RCC-1501, 1502) 9 psig in/ 9 psig out (RCC-1503, 1504)
Bias Adjustment	±15 psi (103 kPa)
Temperature Limits	Operating 40 to 120° F (4 to 49° C) Shipping -40 to 140° F (-40 to 60° C)

Models

RCC-1501	8# calibration; no bracket
RCC-1502	8# calibration; with bracket
RCC-1503	9# calibration; no bracket
RCC-1504	9# calibration; with bracket

RCC-1505/1506/1507/1508**Addition and Subtraction Relays**

These main valve capacity relays are designed for use in pneumatic control circuits. RCC-1505/1506 are addition relays for adding 2 signals up to 30 psig (207 kPa). They are intended for use in systems where the output signal to the controlled device is to be the sum of the 2 different source signals.

RCC-1507/1508 are subtraction relays for subtracting one signal from another up to 30 psig (207 kPa). They are intended for use where the desired output signal to the controlled device is to be the difference of the 2 source signals.

A bias adjustment is provided to retard or advance the output if necessary for all models. Their small size and light weight make them suitable for in-line mounting and may be in any position.

Specifications

Maximum Pressure	30 psig (207 kPa)
Connections	3/16" (5 mm) nipples for 1/4" (6 mm) OD polyethylene tubing
Air Consumption	14.4 scim (3.9 mL/s)
Air Capacity	1728 scim (472 mL/s) @ 20 psig (138 kPa)
Material	Flame retardant plastic
Factory Settings	
RCC-1505/1506	Port 1 = Port 2 + Port 3 (will not exceed the main air pressure)
RCC-1507/1508	Port 1 = Port 2 - Port 3
Bias Adjustment	±15 psi (103 kPa)
Temperature Limits	Operating 40 to 120° F (4 to 49° C) Shipping -40 to 140° F (-40 to 60° C)

Models

RCC-1505	Addition; no bracket
RCC-1506	Addition; with bracket
RCC-1507	Subtraction; no bracket
RCC-1508	Subtraction; with bracket

Accessories

HMO-4507	Replacement bracket and retaining ring for any RCC-1500 series relay
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SEE ALSO: The [Compressed Air Accessories](#) section.

**RCC-1509/1510/1515/1516****Booster Relay**

These relays are proportional main valve capacity booster devices. They are designed for pneumatic control circuits when amplifying the volume of control air in the circuit is necessary. System transmission lag is minimized when used in conjunction with a proportional controller operating several diaphragm valves or actuators. Two models are available with a bias adjustment to offset the output if required.

Accessories

HMO-4507	Replacement bracket and retaining ring for any RCC-1500 series relay
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Specifications

Maximum Pressure	30 psig (207 kPa)
Connections	3/16" (5 mm) nipples for 1/4" (6 mm) OD polyethylene tubing
Air Consumption	14.4 scim (3.93 mL/s)
Air Capacity	1728 scim (473.43 mL/s) @ 20 psig (138 kPa)
Material	Flame retardant plastic
Factory Settings	Zero bias
Bias Adjustment	±15 psi (103 kPa)
Temperature Limits	Operating 40 to 120° F (4 to 49° C) Shipping -40 to 140° F (-40 to 60° C)

Models

RCC-1509	Booster w/o bias; no bracket
RCC-1510	Booster w/o bias; with bracket
RCC-1515	Booster with bias; no bracket
RCC-1516	Booster with bias; with bracket

SEE ALSO: The [Compressed Air Accessories](#) section.

RCC-1511/1512**2 to 1 Ratio Relay**

RCC-1511 and 1512 are main valve capacity ratio relays designed to provide an output signal in proportion to the input. Each 1 psi change to the input yields a 2 psi change to the output. They are used in pneumatic control circuits when the final control device must be controlled by a signal that is proportionally different from the source signal.

A bias adjustment is provided and is factory set for 9 psi out with 9 psi in. The size and light weight make them suitable for in-line mounting and can be in any position.

Specifications

Maximum Pressure	30 psig (207 kPa)
Connections	3/16" (5 mm) nipples for 1/4" (6 mm) OD polyethylene tubing
Air Consumption	14.4 scim (3.93 mL/s)
Air Capacity	1728 scim (472 mL/s) @ 20 psig (138 kPa)
Factory Settings	9 psig in (62 kPa), 9 psig out
Bias Adjustment	±7.5 psi (52 kPa); but output cannot exceed the main air pressure.
Material	Flame retardant plastic
Temperature Limits	Operating 40 to 120° F (4 to 49° C) Shipping -40 to 140° F (-40 to 60° C)

Models

RCC-1511	In-line, without bracket
RCC-1512	With mounting bracket (shown)

Accessories

HMO-4507	Replacement bracket and retaining ring for any RCC-1500 series relay
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RCC-1513/1514

Averaging Relay



RCC-1513 and 1514 main valve capacity averaging relays are proportional devices designed to average two signals in pneumatic control circuits. They are used where the desired output signal to the controlled device is to be the average of two different source signals. The air output volume is also amplified thereby minimizing system lag.

Their size and light weight make them suitable for in-line mounting and can be in any position.

SEE ALSO: The [Compressed Air Accessories](#) section.

Specifications

Maximum Pressure	30 psig (207 kPa)
Connections	3/16" (5 mm) nipples for 1/4" (6 mm) OD polyethylene tubing
Air Consumption	14.4 scim (3.93 mL/s)
Air Capacity	1728 scim (472 mL/s) @ 20 psig (138 kPa)
Factory Setting	Proportional: with main air pressure applied, branch output is the average of the 2 inputs but cannot exceed the main air pressure.
Material	Flame retardant plastic
Temperature Limits	Operating 40 to 120° F (4 to 49° C) Shipping -40 to 140° F (-40 to 60° C)

Models

RCC-1513	In-line, w/o mounting bracket
RCC-1514	With mounting bracket

Accessories

HMO-4507	Replacement bracket and retaining ring for any RCC-1500 series relay
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⚠ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.



Relays, P-E and E-P

SEE ALSO: The *(Pneumatic) Controllers and Switches* section, the *Compressed Air Accessories* section, and *XEC-3001/3002/3004* and *YEC-1101* in the *(Electronic) Transducers* section.

CCE-1001/1002

Pneumatic-Electric Relays



These pneumatic-electric relays are designed for use in control circuits of HVAC systems. Model 1001 is single-pole double-throw, and the 1002 is double-pole double-throw. Each model has a case and cover to conceal the switching mechanism with electrical access through two 1/2" conduit openings. The electrical ratings make them ideal for applications such as starting fan coil unit fans, exhaust fans, and direct control of electric duct heaters.

Models

CCE-1001	SPDT with case and cover
CCE-1002	DPDT with case and cover

▲ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.

Specifications

Setpoint Range	2 to 25 psig (14 to 172 kPa)
Differential Pressure	2 psig fixed (14 kPa)
Switching Action	30 psig maximum (207 kPa)
CCE-1001	SPDT
CCE-1002	DPDT
Electrical Rating	20 A non-inductive @ 120/240/480 VAC; 1 hp @ 120 VAC; 2 hp @ 240 VAC UL Listed, CSA
Approvals	
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Accessories and Repair Parts

HPO-0009	Replacement diaphragm
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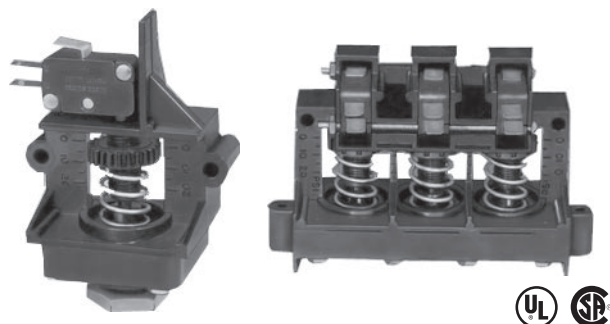


SEE ALSO: CCE-1001s packaged in *KIT-1000 Series Pneumatic Kits* in the *Compressed Air Accessories* section.



CCE-3000 Series

Single/Multi-Stage P-E Relays



The KMC CCE-3001 is a single-stage pneumatic-electric relay designed for applications where a single pneumatic signal requires one predetermined air pressure setting to actuate an electric switch.

The CCE-3002 is a two-stage pneumatic-electric relay, and the CCE-3003 is a three-stage pneumatic-electric relay. These relays are designed for applications where a single pneumatic air signal requires two or three predetermined air pressure settings, each actuating its own electric switch.

Models are not position sensitive and may be mounted on surfaces or in bulk heads. Their electrical ratings make them ideal for applications such as starting fan induction terminals or controlling one, two, or three stages of electric heating or refrigeration.

Specifications

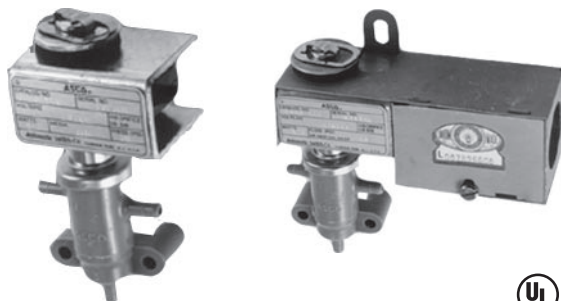
Setpoint Range	2 to 20 psig (14 to 138 kPa)
Differential	Fixed differential, 1 to 2 psi nominal (7 to 14 kPa)
Pressure Max.	30 psig maximum (207 kPa)
Connections	
Air	3/16" (5 mm) nipples for 1/4" (6 mm) OD polyethylene tubing
Electrical	1/4" quick-connect terminals
Switching Action	SPDT on each stage
Electrical Ratings	25 amps each switch (non-inductive) 120/240/277 VAC, 1 hp @ 125 VAC, 2 hp @ 250 VAC, 750 VA pilot duty
Material	
Housing	Black polycarbonate
Diaphragm	Silicone
Temperature Limits	
Operating	40 to 150° F (4 to 60° C)
Shipping	-40 to 150° F (-40 to 60° C)
Approval Listings	CSA and UL Recognized

Models

CCE-3001	One stage
CCE-3002	Two stage
CCE-3003	Three stage

VEC-1010/1020 Series

Electric-Pneumatic Relays



The VEC-1010/1020 series are two-position three-way solenoid air valves used to interface between electric and pneumatic circuits. With a lightweight valve body molded of high strength Celcon, these E-P relays are provided with barbed connections for 1/4" polyethylene tubing at all 3 air ports.

Typical applications include switching branch or main air signals from one source or pressure to another; supplying pressure to or exhausting pressure from control devices such as damper motors and valves, and initiating a change in control function such as in occupied-unoccupied, summer-winter, or outdoor change over applications.

All models are UL and CSA Listed.

Specifications

Connections	
Electrical	Lead wires from coil
Air	3/16" (5 mm) fittings for 1/4" (6 mm) OD polyethylene tubing
Power Consumption	5.7 watts AC, 9.7 watts DC
Pressure Differential	30 psi (207 kPa) maximum
Capacity	605 scfm (165 mL/s) @ 20 psig (138 kPa) with 1 psi (7 kPa) drop
Ambient Limits	
VEC-1010 Series	110° F (43° C)
VEC-1020 Series	100° F (38° C)
Voltages	24, 120, 208, 240, 480 VAC; 24 VDC
Port Markings	1: Normally Closed 2: Normally Open 3: Common

Models

Open Frame	
VEC-1011	24 VAC
VEC-1012	120 VAC
VEC-1017	24 VDC
NEMA 1 Junction Box	
VEC-1021	24 VAC
VEC-1022	120 VAC
VEC-1023	240 VAC
VEC-1026	208 VAC
VEC-1027	24 VDC

VEC-1073/1075/1083/1085 Cross-Reference

See VEC-1010/1020 Series above.

SEE: The [Pneumatic and Electronic Cross-Reference](#) section for replacements of competitive products.



Thermostats–Duct

CTC-4001/4004

Duct Thermostat, Three-Way Switching (Heat/Cool Changeover)



The CTC-4001 and CTC-4004 thermostats are designed as thermally powered three-way switching devices for conditioned airstreams of HVAC systems.

The CTC-4001 has a factory setpoint span of 70 to 75° F (21 to 24° C) and CTC-4004 of 65 to 70° F (18 to 21° C) allowing it to sense and differentiate between heating and cooling airstreams. The three port design makes it ideal for many applications. A particular signal can be diverted to either one of two circuits based on duct temperature. This can be used to disable electric heaters when hot air is present in the ductwork.

For single duct heating-cooling change-over on VAV units, install the CTC-4001 or CTC-4004 in the box inlet collar. Supplied with two signals from a heating-cooling thermostat, the CTC-4001 or CTC-4004 can place the box under control of the correct signal based on duct temperature.

Specifications

Setpoint Range	
CTC-4001	70 to 75° F (21 to 24° C)
CTC-4004	65 to 70° F (18 to 21° C)
Mounting	Element horizontal, port "A" up
Connections	3/16" (5 mm) fittings for 1/4" (6 mm) OD polyethylene tubing
Maximum Pressure	20 psig (138 kPa)
Material	Polycarbonate and brass
Port Markings	
"A"	NO; closed above 75° F (24° C)
"B"	NC; closed below 70° F (21° C)
"C"	Common; (filtered)
Temperature Limits	
	Operating 40 to 120° F (4 to 49° C)
	Shipping -40 to 140° F (-40 to 60° C)

SEE ALSO: The [Compressed Air Accessories](#) section.

SEE: The [Pneumatic and Electronic Cross-Reference](#) section for replacements of competitive products.



CTC-4101

Temperature Controller



The CTC-4101 is a fully proportional direct acting, two-pipe, non-bleed pneumatic temperature controller. It may be used as a low limit control for unit ventilators and air handling units, primary temperature control of coil discharge, or damper control based upon temperature.

A graduated setpoint dial is easily accessible. The design of the unit is non-bleed, which prevents air usage except when the pressure of the output signal increases. The thermal sensing system is liquid filled and proportionally sensitive over the full length of the element.

The unit is furnished with a main air filter (HFO-0006), mounting bracket (HMO-5018), and barbed connections for 1/4" (6 mm) OD plastic tubing.

Specifications

Setpoint Range	40 to 95° F (5 to 35° C)
Proportional Band	4° F (2.5° C)
Supply Pressure	20 psig (138 kPa) operating, 30 psig (207 kPa) maximum
Air Consumption	20.7 scim (5.52 mL/s)
Action	Direct
Maximum Temperature	131° F (55° C)
Material	
Housing	Aluminum die-cast
Internal Parts	Brass
Setpoint Indicator	Plastic
Connections	For 1/4" (6 mm) OD plastic tubing
Bulb Style	Liquid filled, 47" (119 cm) long
Temperature Limits	Operating 40 to 120° F (4 to 49° C) Shipping -40 to 140° F (-40 to 60° C)

Accessories and Repair Parts

HFO-0006	In-line control air filter, 25 microns, 3/16" nipples for 1/4" OD poly tubing
HMO-0018	Replacement CTC-4101 mounting bracket

⚠ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.



Thermostats–Room

CTC-1000/1500 Series ONLY Accessories

HFO-0026 Blank cover insert
“blanks” out
window in large
thermostats cover,
light almond



HMO-5001 Dual toggle
bolt, allows
mounting of large
thermostats to
drywall



HMO-5012 Insulating back-
plate for large
thermostats, white
HMO-5002 Light almond



SEE ALSO: The [Compressed Air Accessories](#) section.

CTC-1600 Series ONLY Accessories

Covers

Thermostat covers, blank:

HPO-1501 Light almond, ABS
HPO-1502 White, ABS
HPO-1503 Brushed aluminum



Thermostat covers, full window:

HPO-1511 Light almond ABS
HPO-1512 White ABS
HPO-1513 Brushed aluminum
HPO-1514 White metal
HPO-1516 Light almond metal



Thermostat covers, local indexing
(CTC-1653/1654 only):

HPO-1521 Light almond ABS
HPO-1522 White ABS
HPO-1523 Brushed aluminum
HPO-1526 Light almond metal



HPO-0044 Replacement thermostat
cover screws (2 furnished
with each thermostat)



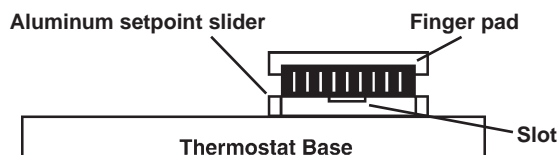
HPO-0051 Replacement cover
window for thermostat
(1 furnished with each
cover)



⚠ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.

NOTE: When using a blank cover the finger pads on the setpoint slider(s) must be removed. Carefully hold the setpoint slider in place by pressing the slider against the thermostat base. Insert a 1/8" flat-blade screwdriver into the slot on the metal setpoint slider and finger pad. The finger pad should pop off with a slight twisting of the screwdriver.





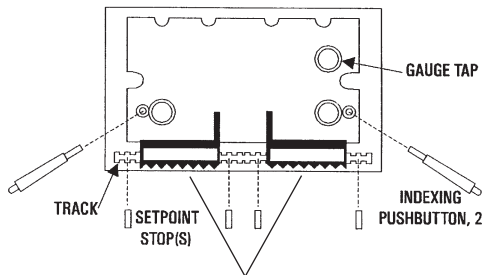
NOTE: Covers are available in three styles and a variety of decorative finishes. A symbol-coded label strip is included with the window-styled covers for setpoint indication.

Remove window by applying finger pressure on the underside center of window and flex outward, releasing from either side. Peel-off and stick desired label into indented area, making sure symbols are on correct sides. Snap window back into place.

Be sure scale plate and other accessories are in place and slide cover over base. Locate both setscrews through sides and with a 1/16" hex wrench, turn screws outward (CCW) until cover is held firmly in place. To remove cover, turn screws inward (CW) to provide clearance for lifting off.

HPO-0045 Push button, (CTC-1653/1654) indexing

NOTE: These indexing push buttons are required for "changeover" on **CTC-1653/1654** (only) thermostats. They are **supplied with the local indexing covers** and are black in color. After removing the cover, insert the tapered end with the longer protrusion into the holes located next to the gauge taps (see diagram).



Removable serrated thumb adjusters—must be removed if using "blank" covers

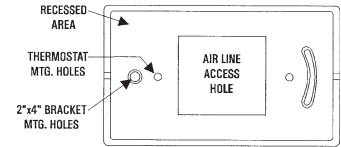
HPO-1320 Label strip, 3 labels per strip (for day/night, summer/winter or heating/cooling indication), 1 furnished with each cover



HPO-0046 Replacement pins to hold scale plates onto thermostats (2 furnished w/ each scale plate)



Mounting Hardware

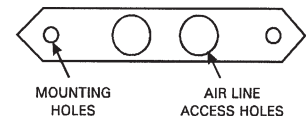


Thermostats may be mounted with this backplate to a 2" x 4" electrical box or adapts to Barber-Colman, Johnson Controls, L&G-P, or Robertshaw/Invensys mounting plates. Secure backplate which is slotted for leveling to box with 6-32 screws. Connect air lines as described on thermostat data sheet. Cover removed, mount thermostat (supplied with 6-20 x 2" screws) to backplate.

HMO-5024	Light almond with aluminum trim
HMO-5026	White with aluminum trim
HMO-5030	Light almond with matching trim
HMO-5031	White with matching trim

Mounting Trim Plate:

HMO-5022	Light almond
HMO-5027	White



HMO-5023 Mounting strap

Thermostat may be mounted to a hollow wall up to 5/8" thick using this bracket. Kit includes bracket two 6-32 x 2" screws, and template for a precise 1-1/2" x 2-11/16" wall cutout.

Loosely mount thermostat (cover removed) to the bracket with 6-32 x 2" screws. Connect air lines as described on thermostat data sheet. Insert the bracket through the wall cutout diagonally, center, and tighten screws.



CTC-1000/1500/1600 Series Accessories

SEE ALSO: The [Compressed Air Accessories](#) section.

SEE ALSO: CTC-1621s and accessories packaged in [KIT-1000 Series Pneumatic Kits](#) in the [Compressed Air Accessories](#) section.

Connections and Tools

HFO-0010 Restrictor T, 14.4 scim (0.5 scfh), 3/16" nipples for 1/4" OD poly tubing, beige

HFO-0014 Rubber cap for KMC standard 1/8" ports and 5/32" brass barb fittings

HFO-0024 Tube assembly, 8" long 3/32" ID tube with spring and 2 eyelets.

HFO-0028 Tube assembly, 8" long 3/32" ID tube with spring, 4 eyelets, and two 1/4" adapters.

These 0 to 30 psi pressure gauges have two-inch dials and are useful for calibration.

ICI-1005 Pressure Gauge, 1/8" MPT center back

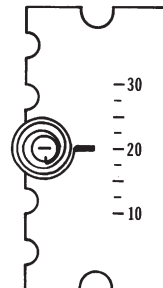
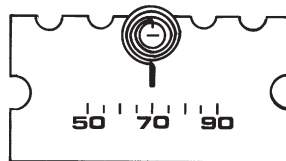
ICI-1007 Pressure Gauge, 1/4" MPT center back

Screwdriver with small flat blade end, 1/16" hex end, and pocket clip, useful for removing covers and calibration.

SP-001 Screwdriver, flat blade and hex ends, KMC logo



Scale Plates

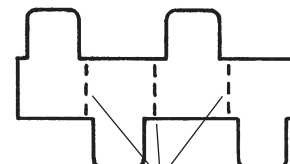
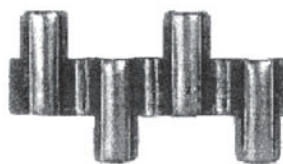


Scale plates are available in ° F or ° C and vertical or horizontal styles. Custom names/finishes on request. Two HPO-0046 retaining pins are supplied with each scale plate.

Remove gauge tap cap(s) on thermostat. Slide the plate under the setpoint slider indicator(s) and align, using gauge taps as reference. Insert retaining pins into the holes directly above (or left for vertical) the gauge taps and twist to lock in place. Replace gauge tap caps and install cover. If no temperature indication is desired, turn the thermometer out of view before installing cover.

HPO-0047-10	Horizontal Scale Plate ° F
HPO-0048-10	Vertical Scale Plate ° F
HPO-0049-11	Horizontal Scale Plate ° C
HPO-0050-11	Vertical Scale Plate ° C

Setpoint Stops



Break Points

Setpoint can be locked or limited using these break-apart stops. Set includes four. Stops are inaccessible and hidden when cover is installed.

Using pliers, gently grip both sides of a seam and fold to break apart each stop. Insert a stop into the slider track on one or both sides of slider.

HFO-0027	Setpoint stop strip 4 "stops" per strip
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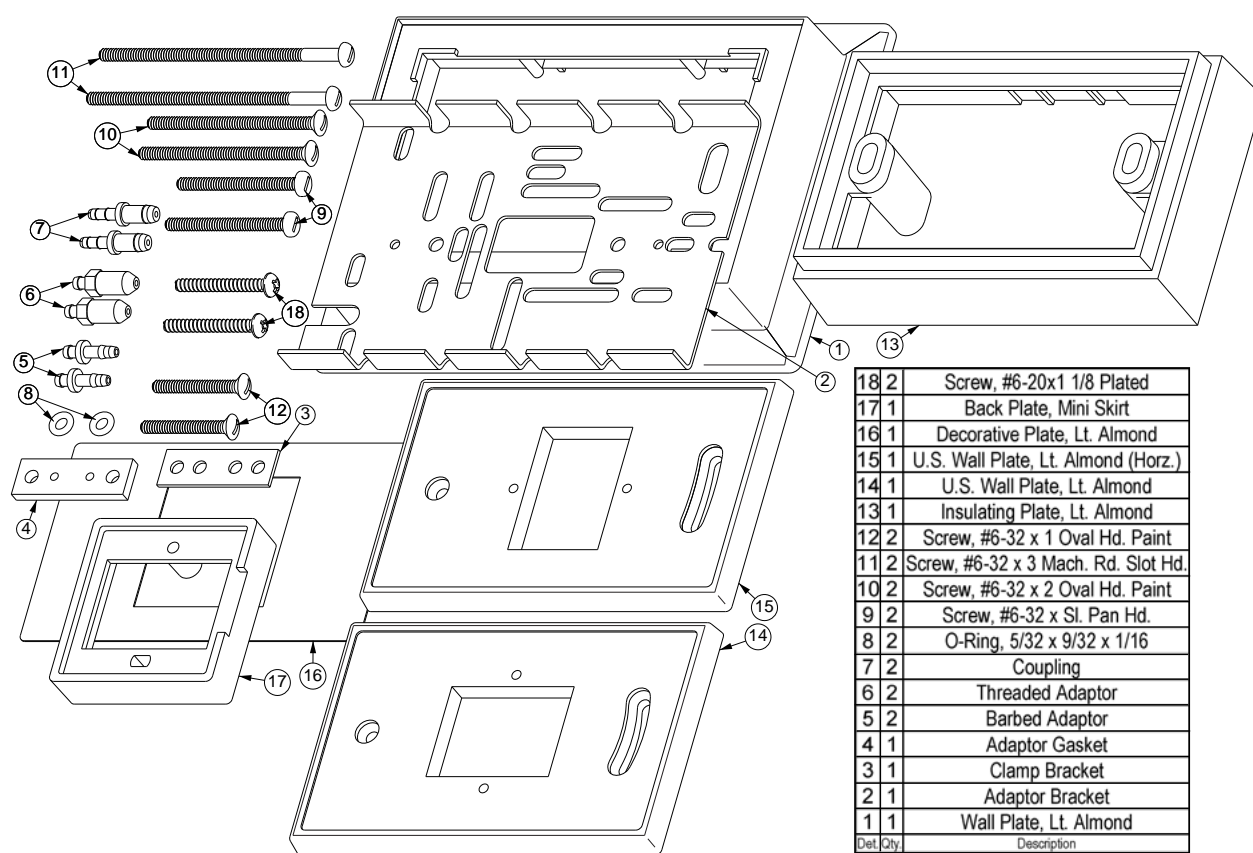
Thermostat Packages and Upgrade Kit

Thermostat packages offer the ease of ordering one part number to furnish all necessary components and mounting hardware for vertically mounted thermostats. They contain these components:

- CTC-1600 series base
- HPO-0048-10 °F vertical scale plate
- HPO-1511 light almond full window ABS thermostat cover
- HMO-5030 light almond backplate kit with decorative matching plate
- HPO-1320 label strip
- HFO-0027 setpoint stops strip

Contact KMC Controls for information about thermostat packages.

HMO-5500 Thermostat universal upgrade kit, for replacing other thermostat brands with KMC, light almond (includes: plates, brackets, screws, O-rings, couplings, and adapters)



**CTC-1000****One-Pipe Room Thermostat, Single Setpoint**

The CTC-1000 series room thermostats are for use in HVAC systems for the control of pneumatic valves and damper actuators. These units are fully proportional, one-pipe type thermostats which require the use of an external restrictor (HFO-0010) in the main air line.

Single setpoint units for either direct-acting or reverse-acting applications, these thermostats offer several mounting methods, including the ability to mount on a 2 x 4 inch electrical box.

The cover and scale plate are included. The cover design allows for a visible or concealed thermometer, exposed or concealed setpoints, or a blank window. In addition, stops may be ordered which allow a locked setpoint or a restricted adjustment range.

Specifications

Supply pressure	20 psig (138 kPa) operating supplied through restrictor 30 psig (207 kPa) maximum
Setpoint range	55 to 85° F (13 to 29° C)
Proportional band	4° F (2.2° C)
Material	
Housing	Light almond ABS
Thermometer	Bimetal
Weight	3.0 oz (85 g) without packing
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Models

CTC-1002-10	° F, Reverse Acting (R.A.)
CTC-1003-10	° F, D.A. Cooling, R.A. Heating

Accessories

See the [CTC-1000/1500 ONLY Series Accessories](#) section and the [CTC-1000/1500/1600 Series Accessories](#) section.

CTC-1500 Series**Two-Pipe Room Thermostat**

The CTC-1500 series room thermostats are for use in HVAC systems for the control of pneumatic valves and damper actuators. These units are fully proportional, main-air thermostats, for either direct-acting or reverse-acting applications.

The single or dual setpoint thermostats offer several mounting methods, including the ability to mount on a 2 x 4 inch electrical box. The cover and scale plate are included. The cover design allows for a visible or concealed thermometer, exposed or concealed setpoints, or a blank window. In addition, stops may be ordered which allow a locked setpoint or a restricted adjustment range.

Accessories

See the [CTC-1000/1500 ONLY Series Accessories](#) section and the [CTC-1000/1500/1600 Series Accessories](#) section.

Specifications

Supply Pressure	20 psig (138 kPa) operating 30 psig (207 kPa) maximum (port M)
Air Consumption	
CTC-1501/2	20.2 scim @ 20 psig
CTC-1503 thru 12	43.2 scim @ 20 psig
Setpoint range	55 to 85° F (13 to 29° C)
Proportional band	4° F (2.2° C)
Material	
Housing	Light almond ABS
Thermometer	Bimetal
Weight	4.0 oz (113 g) without packing
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Models**Single Setpoint**

CTC-1501-10	° F, Direct acting
CTC-1501-11	° C, Direct acting
CTC-1502-10	° F, Reverse acting
CTC-1502-11	° C, Reverse acting

Dual Setpoint, Heating/Cooling

CTC-1503-10	° F, D.A. Cooling, R.A. Heating
CTC-1504-10	° F, D.A. Cooling, D.A. Heating
CTC-1505-10	° F, R.A. Cooling, R.A. Heating
CTC-1506-10	° F, R.A. Cooling, D.A. Heating

Dual Setpoint, Day/Night

CTC-1509-10	° F, D.A. Day, D.A. Night
CTC-1510-10	° F, R.A. Day, R.A. Night
CTC-1511-10	° F, D.A. Night, D.A. Day
CTC-1512-10	° F, R.A. Night, R.A. Day



CTC-1611/1612

One-Pipe Room Thermostat, Direct and Reverse Acting



These thermostats are designed for proportional control of pneumatic valve and damper actuators used in HVAC systems. A highly sensitive bimetal element with feedback is used for accuracy and stability. An external restrictor is required in the supply line.

Select the model for direct or reverse-acting proportional action. The throttling range is factory set and field adjustable. Item is pictured with optional cover and scale plate assembled. **The scale plate assembly and a cover must be ordered separately** (see Accessories section).

Specifications

Setpoint Range	55 to 85° F (13 to 29° C), adjustable via slider; adjustment may be concealed and locked or limited
Throttling Range	3 to 12° F (1.7 to 6.7° C) factory set @ 3° F, field adjustable up to 12° F
Calibration	9 psig (62 kPa) branch pressure
Air Supply Pressure	20 psig (138 kPa); 30 psig (207 kPa) maximum supplied through 14.4 scim (3.9 mL/s) restrictor sold separately
Base Material	Black ABS
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Models

CTC-1611	Direct acting
CTC-1612	Reverse acting

Accessories

See the [CTC-1600 ONLY Series Accessories](#) section and the [CTC-1000/1500/1600 Series Accessories](#) section.

CTC-1621/1622

Two-Pipe Room Thermostat, Direct and Reverse Acting



The CTC-1621/1622 thermostats are designed for proportional control of pneumatic valve and damper actuators in HVAC systems. They utilize a highly sensitive bimetal element with feedback and a pilot bleed relay for accuracy and stability.

Select the model for direct or reverse acting proportional action. The throttling range is factory set and is field adjustable. Item is pictured with optional cover and scale plate assembled. **The scale plate assembly and a cover must be ordered separately** (see Accessories section).

Specifications

Setpoint Range	55 to 85° F (13 to 29° C), adjustable via slider; adjustment may be concealed and locked or limited
Throttling Range	3 to 12° F (1.7 to 6.7° C), factory set @ 3° F, field adjustable up to 12° F
Calibration	9 psig (62 kPa) branch pressure
Air	
Supply Pressure	20 psig (138 kPa); 30 psig (207 kPa) maximum
Capacity	200 scim (55 mL/s)
Consumption	20 scim (5.5 mL/s)
Base Material	Black ABS
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Thermostat Packages

CTC-1621-103	Direct-Acting
CTC-1622-103	Reverse-Acting

These thermostat packages contain the necessary components to allow replacement of most Barber-Colman, Johnson Controls, L&G-P, or Robertshaw/Invensys thermostats. They also afford the ease of ordering one part number to furnish all necessary components and mounting hardware for vertically mounted thermostats. They contain these components:

- CTC-1621 or CTC-1622 base
- HPO-0048-10 °F vertical scale plate
- HPO-1511 light almond full window ABS thermostat cover
- HMO-5030 light almond backplate kit w/ decorative matching plate
- HPO-1320 label strip
- HFO-0027 setpoint stops strip

Models

CTC-1621	Direct acting
CTC-1622	Reverse acting

Accessories

See the [CTC-1600 ONLY Series Accessories](#) section and the [CTC-1000/1500/1600 Series Accessories](#) section.

SEE ALSO: CTC-1621s packaged in [KIT-1000 Series Pneumatic Kits](#) in the [Compressed Air Accessories](#) section.

**CTC-1631/1632****Two-Pipe, Deadband, Room Thermostat,
Direct and Reversing Acting**

The CTC-1631/1632 thermostats are designed for proportional control of pneumatic valve and damper actuators used in HVAC systems. A temperature span may be set so the system uses no energy for either heating or cooling between selected setpoints. For accuracy and stability, they utilize highly sensitive bimetal elements with feedback and a pilot bleed relay.

Select model for direct or reverse acting proportional action. The throttling range is factory set and field adjustable.

Item is pictured with optional cover and scale plate assembled. **The scale plate assembly and a cover must be ordered separately** (see Accessories).

Specifications

Setpoint Range	55 to 85° F (13 to 29° C), adjustable via slider; adjustment may be concealed and locked or limited
Throttling Range	3 to 12° F (1.7 to 6.7° C) factory set @ 3° F, field adjustable up to 12° F
Deadband Pressure	8 psig (55 kPa), field adjustable
Air	
Supply Pressure	20 psig (138 kPa) nominal; 30 psig (207 kPa) maximum
Capacity	200 scim (55 mL/s)
Consumption	20 scim (5.5 mL/s)
Base Material	Black flame retardant plastic
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Models

CTC-1631	Direct Acting
CTC-1632	Reverse Acting

Accessories

See the [CTC-1600 ONLY Series Accessories](#) section and the [CTC-1000/1500/1600 Series Accessories](#) section.

CTC-1640 Series**Two-Pipe, Two-Temperature, Room Thermostat**

The CTC-1640 series is designed for proportional control of pneumatic valve and damper actuators used in two temperature HVAC applications. These may include day/night, summer/winter or other. For accuracy and stability, they utilize two highly sensitive bimetal elements with feedback and a pilot bleed relay.

Remote indexing is via dual main air supply pressure. The control of one temperature (right indicator for horizontal, top for vertical) occurs when the main air supply pressure is 16 psig. The second temperature (left indicator for horizontal, bottom for vertical) is selected when the main pressure is 25 psig.

Select model for direct and/or reverse proportional action of both bimetal elements. The throttling range of these elements is factory set and field adjustable.

Item is pictured with optional cover and scale plate assembled. **The scale plate assembly and a cover must be ordered separately** (see Accessories).

Accessories

See the [CTC-1600 ONLY Series Accessories](#) section and the [CTC-1000/1500/1600 Series Accessories](#) section.

Specifications

Setpoint Range	55 to 85° F (13 to 29° C), adjustable via slider; adjustments may be concealed and locked or limited
Throttling Range	3 to 12° F (1.7 to 6.7° C) factory set @ 3° F, field adjustable up to 12° F for both bimetals
Calibration	9 psig (62 kPa) branch pressure
Indexing	Remote via change in main air supply pressure; right-horizontal/ top-vertical @ 16 psig (110 kPa) +/- 1 psig (6.9 kPa); left-horizontal/ bottom-vertical @ 25 psig (173 kPa) +/- 1 psig
Air	
Supply Pressure	16/25 psig (110/173 kPa) 30 psig (207 kPa) maximum
Capacity	200 scim (55 mL/s)
Consumption	20 scim (5.5 mL/s)
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Models

CTC-1643*	Direct acting @ 16 psig/25 psig
CTC-1644*	Reverse acting @ 16 psig/25 psig
CTC-1645*	Reverse acting @ 16 psig/ Direct acting @ 25 psig
CTC-1646*	Direct acting @ 16 psig/ Reverse acting @ 25 psig

*Add "-23" to model number for 13/18 psi switchover
Add "-25" to model number for 15/22 psi switchover



CTC-1653/1654

Two/Three-Pipe, Two-Temperature, Room Thermostat with Local Indexing



The CTC-1653/1654 thermostats are designed for proportional control of pneumatic valve and damper actuators used in two-temperature HVAC applications. These may include day/night, summer/winter or other. For accuracy and stability, they utilize two highly sensitive bimetal elements with feedback and a pilot bleed relay.

Remote indexing is via dual main air supply pressure, and local indexing by push-button control. Control of one temperature (right indicator for horizontal, top for vertical) occurs when the main air supply is 16 psig. The second temperature (left indicator for horizontal, bottom for vertical) is selected when the main pressure is 25 psig. When 25 psig is supplied, control may be changed to the 16 psig indicator by pressing right (or top) button. If desired, control can be returned to the 25 psig indicator by pressing the left (or bottom) button. When main air supply is changed to 16 psig, control automatically returns to the 16 psig indicator.

Select model for direct or reverse acting proportional action of both bimetal elements. The throttling range of these elements is factory set and field adjustable. Item is pictured with optional cover and scale plate assembled. **The scale plate assembly and a cover must be ordered separately** (see Accessories).

Specifications

Setpoint Range	55 to 85° F (13 to 29° C), adjustable via slider; adjustment may be concealed and locked or limited
Throttling Range	3 to 12° F (1.7 to 6.7° C) factory set @ 3° F, field adjustable up to 12° F for both bimetals
Calibration	9 psig (62 kPa) branch pressure
Indexing	Remote via change in main air supply pressure; right-horizontal/ top-vertical @ 16 psig (110 kPa) +/-1 psig (6.9 kPa); left-horizontal/ bottom-vertical @ 25 psig (173 kPa) +/-1 psig (6.9 kPa)
Air	
Supply Pressure	16/25 psig (110/173 kPa); 30 psig (207 kPa) maximum
Capacity	200 scim (55 mL/s)
Consumption	20 scim (5.5 mL/s)
Base Material	Black ABS
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Models

CTC-1653	Direct acting @ 16 psig/25 psig
CTC-1654	Reverse acting @ 16 psig/25 psig

Special Order Dual Main Models

CTC-1653-23	Direct Acting @ 13/18 psig
CTC-1654-23	Reverse Acting @ 13/18 psig
CTC-1653-25	Direct Acting @ 15/22 psig
CTC-1654-25	Reverse Acting @ 15/22 psig

Accessories

See the **CTC-1600 ONLY Series Accessories** section and the **CTC-1000/1500/1600 Series Accessories** section.



CTC-5000/5500 Series Accessories

NOTE: See also Connections and Tools in the [CTC-1600 Series Accessories](#) section.

Mini-stat setpoint cover, single:

HPO-0031 White
HPO-0032 Light almond



Insulating backplate, mini-stats:

HMO-5016 White
HMO-5014 Light almond



Adapter backplates, mini-stat to handy box:

HMO-5036 Vertical, light almond
HMO-5037 Vertical, white
HMO-5038 Horizontal, white
HMO-5039 Horizontal, light almond



Dual mini-stat mounting, allows 2 mini-stats to be mounted under the same cover

HMO-5011 White
HMO-5008 Light almond



HFO-0010 Restrictor T, 14.4 scim (0.5 scfh), 3/16" nipples for 1/4" OD poly tubing, beige (not for CTC-5500 series)



HFO-0024 Tube assembly, 8" long 3/32" ID tube with internal spring and 2 eyelets.



HFO-0028 Tube assembly, 8" long 3/32" ID tube w/ internal spring, 4 eyelets, and two 1/4" adapters (not for CTC-5000 series).



CTC-5000 Series

One-Pipe Room Thermostat, Single Setpoint



The CTC-5000 series room thermostats are now obsolete and are only available for replacement of existing units.

CTC-5500 Series

Two-Pipe Room Thermostat, Single Setpoint



The CTC-5500 series room thermostats are designed for use in HVAC systems for the control of pneumatic valves and damper actuators. They are fully proportional, two-pipe relay thermostats which require main air at the thermostat.

Offering acute accuracy, small size, and simplistic design, they are single setpoint units for either direct or reverse acting. The removable cover allows access to the adjustment screw if recalibration is required. An optional setpoint cover may be added on top to conceal the setpoint adjustment.

Specifications

Supply Pressure	20 psig (137 kPa) operating, 30 psig (207 kPa) maximum
Air Consumption	20.16 scim @ 20 psig (5.50 mL/s)
Range	60° F to 90° F (15° C to 32° C)
Proportional Band	4° F (2.2° C)
Material	Ash white or light almond, flame retardant plastic
Cover Type	Full, w/o thermometer
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Models

CTC-5501-10	Direct acting, ° F, ash white
CTC-5501-11	Direct acting, ° C, ash white
CTC-5502-10	Reverse acting, ° F, ash white
CTC-5502-11	Reverse acting, ° C, ash white
CTC-5511-10	Direct acting, ° F, light almond
CTC-5511-11	Direct acting, ° C, light almond
CTC-5512-10	Reverse acting, ° F, light almond
CTC-5512-11	Reverse acting, ° C, light almond



Sensors and Transmitters

HFO-0000/HMO-4500 Series

Accessories for One-Pipe Transmitters

SEE ALSO: The [Compressed Air Accessories](#) section.

HFO-0010 Restrictor T, 14.4 scfm (0.5 scfh), 3/16" nipples for 1/4" OD poly tubing, beige



HFO-0022 Restrictor T, 28.8 scfm (1 scfh), 3/16" nipples for 1/4" OD poly tubing, gray



HFO-0025 In-line restrictor, 28.8 scfm (1 scfh), 3/16" nipples for 1/4" OD poly tubing, gray



HFO-0023 Restrictor insert, converts standard 1/4" compression fitting to 28.8 scfm (1 scfh) restrictor



HFO-0024 Tube assembly, 8" long 3/32" ID tube w/spring and 2 eyelets



HFO-0028 Tube assembly, 8" long 3/32" ID tube w/ spring, 4 eyelets, and two 1/4" adapters



HMO-4503 TTC-1000 series wells, bronze.

HMO-4515 TTC-1000 series wells, stainless steel.



HMO-4504 TTC-1000/1500/2000 series duct bracket for mounting on ductwork



SSS-1000 Series

Differential Pressure Flow Sensors



These sensors are designed to sense differential pressure in the inlet section of variable air volume terminal units and fan terminal units. They can also be used to sense differential pressure at other locations in the main or branch duct systems. The differential pressure read between the high "H" port and the low "L" port can be used to determine the air flow.

These sensors are normally used in conjunction with the CSC-1000/2000/3000 series of VAV terminal controllers for individual zone control in HVAC systems. There are four lengths available to accommodate box size diameters of 4" up to 16".

NOTE: For maximum measurement accuracy, install the longest sensor that will fit into the duct.

Specifications

Material	Light almond ABS/Polycarbonate (UL94-5V)
Mounting	Integral flange with gasket
Connections	1/4" (6 mm) nipples for 3/8" (10 mm) OD polyethylene tubing
Sensing Points	
SSS-1002	One set
SSS-1003	Two sets
SSS-1004	Three sets
SSS-1005	Four sets
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	-40 to 140° F (-40 to 60° C)

Models

SSS-1002	3-5/32 inches long (80 mm)
SSS-1003	5-13/32 inches long (137 mm)
SSS-1004	7-21/32 inches long (195 mm)
SSS-1005	9-29/32 inches long (252 mm)
KIT-1005	Group of one each of all four models

SEE ALSO: These sensors packaged in [KIT-1000 Series Pneumatic Kits](#) in the [Compressed Air Accessories](#) section.



TSC-2000 Series Static Pressure Transmitters



The TSC-2000 series are one-pipe pneumatic devices designed to transmit a fixed span 3–15 psig (20–103 kPa) output signal which is fully proportional to the static pressure being sensed.

With five different ranges available, the output signal can be used as an input for receiver-controllers or receiver gauges for visual indication of system conditions. Typical uses include sensing and transmitting static pressure drop across filters, fans or any two reference points or velocity pressure differentials.

The TSC-2000 series requires a restricted input air supply. An HFO-0010 restrictor T is available separately. The units must be mounted with the control air port pointing down.

Specifications

Supply Pressure	20 psig (138 kPa) operating supplied through filtered restrictor sold separately (HFO-0010) 30 psig (207 kPa) maximum
Air Consumption	14.4 scim (3.93 mL/s)
Output	3 to 15 psig (20 to 103 kPa)
Action	Direct
Mounting Position	Control air connection down
Connections	3/16" (5 mm) fittings for 1/4" (6 mm) OD polyethylene tubing
Material	Beige flame retardant plastic
Weight	4 oz. (113 grams)
Temperature Limits	
Operating	40 to 120° F (4 to 49° C)
Shipping	–40 to 140° F (–40 to 60° C)

Models

TSC-2001	0" to 0.5" WC (.12 kPa)
TSC-2002	0" to 1" WC (.25 kPa)
TSC-2003	0" to 2" WC (.50 kPa)
TSC-2004	0" to 4" WC (1 kPa)
TSC-2005	–0.5" to 0.5" (–0.12 to 0.12 kPa)

Accessories

HFO-0010	Restrictor T, 14.4 scim (0.5 scfh), 3/16" nipples for 1/4" OD poly tubing, beige
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Valve Accessories and Repair Parts

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

HPO-5000 Series Valve Packing Kits

Flange Valves

HPO-5038	Graphite, 3/8" stem, flanged valves
HPO-5039	Graphite, 1/2" stem, 115 sq. in. top, flanged valves
HPO-5088	V-ring, 3/8" stem, flanged valves

NOTE: Graphite packing was used on all flanged valves prior to date code 9723, on certain valves up to date code 9737, and on all flanged valves using the 115 sq.-inch actuator.

For valves between date codes 9723 and 9737, packing used is determined by the brass bonnet size. For 1" diameter (14 threads per inch) brass bonnets, graphite packing was used. For 1-3/8" diameter (18 threads per inch) brass bonnets, V-ring packing was used.

V-ring packing is used on all valves since date code 9737, with the exception of those using 115 sq.-inch actuators.



Globe Valves

HPO-5013	Packing Kit, VEP-43/45 and VCP-41/42/43
HPO-5014	Packing Kit, VCP-61/62/63



⚠ CAUTION

Using mineral oil lubricants or other incompatible substances in system fluids may damage EPDM rubber seals in valves. Before using any lubricant or additive in a water or ethylene glycol base, consult the substance manufacturer for compatibility with EPDM (Ethylene Propylene Diene Monomer).



VCP-11/21/34 Series Accessories



Replacement Actuator:

MCP-6001	3-8 psi
MCP-6002	8-13 psi



HPO-5114 Replacement diaphragm for VCP-11/21/34



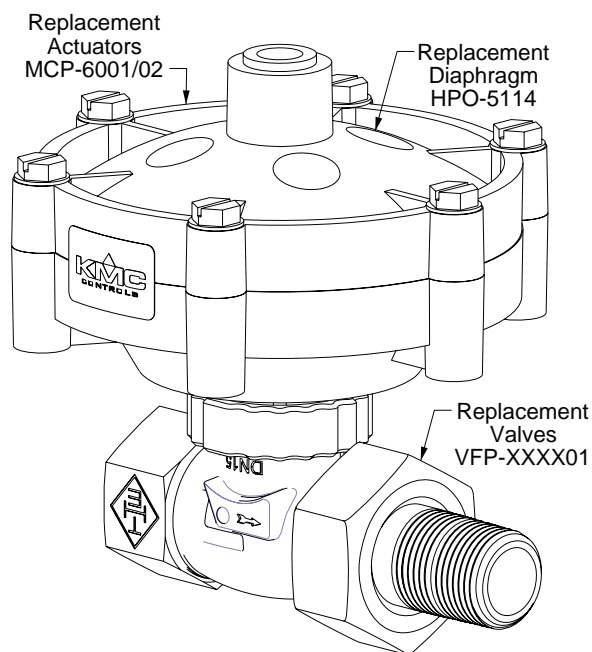
Replacement Gasket:

HPO-5017	3/4", for use on VCP/VFP-3420
HPO-5018	1", for use on VCP/VFP-3421



Replacement Valve Disc:

HPO-5065	1/2" 2.0 Cv
HPO-5066	1/2" 2.6 Cv
HPO-5067	3/4" 2.9 Cv
HPO-5068	3/4" 4.7 Cv
HPO-5069	1/2" 1.7 Cv 3-way
HPO-5070	3/4" 4.9 Cv 3-way



Model #:	Valve Type:	Cv Rate:	Valve #:	Range:	Actuator #:
VCP-11140141	1/2" Straight N.O., 2-Way	1.6	VFP-111401	3-8 psi	MCP-6001
VCP-11140142				8-13 psi	MCP-6002
VCP-11150141		2.0	VFP-111501	3-8 psi	MCP-6001
VCP-11150142				8-13 psi	MCP-6002
VCP-11160141	3/4" Straight N.O., 2-Way	2.6	VFP-111601	3-8 psi	MCP-6001
VCP-11160142				8-13 psi	MCP-6002
VCP-11170141		2.9	VFP-111701	3-8 psi	MCP-6001
VCP-11170142				8-13 psi	MCP-6002
VCP-11180141	1" Straight N.O., 2-Way	4.7	VFP-111801	3-8 psi	MCP-6001
VCP-11180142				8-13psi	MCP-6002
VCP-11220141		5.0	VFP-112201	3-8 psi	MCP-6001
VCP-11220142				8-13 psi	MCP-6002
VCP-21140141	1/2" Angle N.O., 2-Way	1.6	VFP-211401	3-8 psi	MCP-6001
VCP-21140142				8-13 psi	MCP-6002
VCP-21150141		2.0	VFP-211501	3-8 psi	MCP-6001
VCP-21150142				8-13 psi	MCP-6002
VCP-21160141	3/4" Angle N.O., 2-Way	2.6	VFP-211601	3-8 psi	MCP-6001
VCP-21160142				8-13 psi	MCP-6002
VCP-21170141		2.9	VFP-211701	3-8 psi	MCP-6001
VCP-21170142				8-13 psi	MCP-6002
VCP-34200141	3-Way 3/4"	4.9	VFP-342001	3-8 psi	MCP-6001
VCP-34200142				8-13psi	MCP-6002
VCP-34210141	3-Way 1"	8.5	VFP-342101	3-8 psi	MCP-6001
VCP-34210142				8-13 psi	MCP-6002



Bonnet Assembly (consists of stem, plug, packing, bonnet and disc):

HPO-5030	1/2" 2.0 Cv, 2-way
HPO-5031	1/2" 2.6 Cv, 2-way
HPO-5032	3/4" 2.9 Cv, 2-way
HPO-5033	3/4" 4.7 Cv, 2-way
HPO-5034	1/2" 1.7 Cv, 3-way
HPO-5035	1/2" 1.6 Cv, 2-way



Replacement Union Nut:

HPO-5021	3/4" for use on VCP-3420
HPO-5022	1" for use on VCP-3421
HPO-5058	Replacement union nut for all 1/2" VCP series valve bodies



MPT Nipple (converts VCP/VFP-3420/3421 to 3/4" or 1" MPT, 3 required per valve):

HPO-5026	3/4"
HPO-5027	1"



HPO-5059 Replacement union nipple for all 1/2" VCP/VFP series valve bodies

VCP-11/12/34 Series (VFP) Valve Bodies

Replacement Valve Bodies:

VFP-111401	For any VCP-11/12/15-1401XX
VFP-111501	For any VCP-11/12/15-1501XX
VFP-111601	For any VCP-11/12/15-1601XX
VFP-111701	For any VCP-11/12/15-1701XX
VFP-111801	For any VCP-11/12/15-1801XX
VFP-112201	For any VCP-11/12/15-2201XX
VFP-211401	For any VCP-21/22/25-1401XX
VFP-211501	For any VCP-21/22/25-1501XX
VFP-211601	For any VCP-21/22/25-1601XX
VFP-211701	For any VCP-21/22/25-1701XX
VFP-342001	For any VCP-342001XX
VFP-342101	For any VCP-342101XX





VCP-41/42/43 Accessories



HPO-5013 Packing Kit, VEP-43/45 and VCP-41/42/43



11.4 sq. in. Springs:
HPO-5046 3–8 psi (white)
HPO-5047 3–13 psi (orange)
HPO-5048 8–13 psi (black)



43.4 sq. in. Springs:
HPO-5049 3–8 psi (light blue)*
HPO-5050 3–13 psi (orange)*
HPO-5051 8–13 psi (black)*



11.4 sq. in. Diaphragms:
HPO-5110 Assembled in “twisted off” metal top, diaphragm not available separately
HPO-5111 Same as HPO-5110, but built with silicone diaphragm for use in high ambient temperatures



Diaphragms:
HPO-5113 43.4 sq. inches, silicone*
HPO-5115 43.4 sq. inches, EPDM*



Feedback Springs (see also the VCP-41/42/43/51/52/53/54 Positioner Feedback Springs, 5# and 10# section):
HPO-5001 5# (gold), all VCP-41/42/43 series
HPO-5003 10# (green), all VCP-41/42/43



062-500-01 Positioner stud, attaches CMC-1002 positioner to 11.4 sq. in. tops



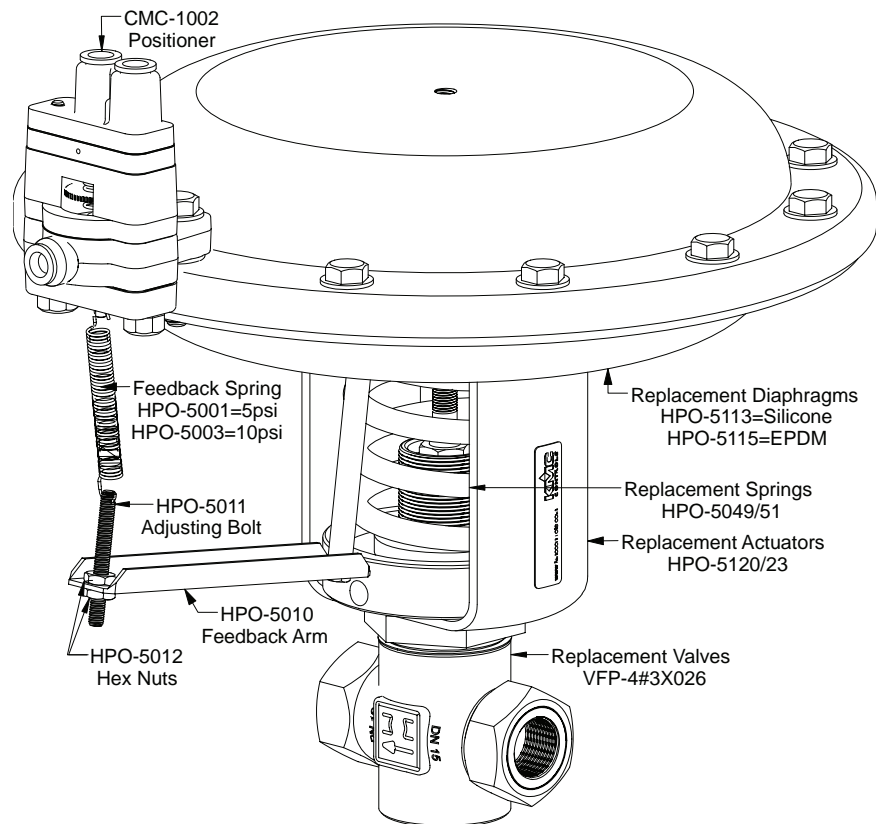
HPO-5010 Feedback arm fits all 43.4 sq. in. positioner tops



HPO-5012 Feedback nut, used with HPO-5011 feedback post; two required per valve



HPO-5011 Feedback post, used with two HPO-5012s to attach feedback spring to HPO-5010 feedback arm



VCP-4X3X0260 with Positioner; VCP-4X3X026X without Positioner

HPO-5016* Positive positioner kit to add metal positioner (CMC-1002) to any existing VCP-4 series valve with a 43.4 sq. in. actuator; includes instructions and CMC-1002

*⚠ CAUTION

Adding an HPO-5016 positive positioner kit to a 43.4 square inch actuator requires partially disassembling and reassembling the actuator. The very high spring pressure makes performing this process in the field difficult and dangerous. Purchasing a new valve/actuator assembly with a factory-installed positioner is highly recommended.

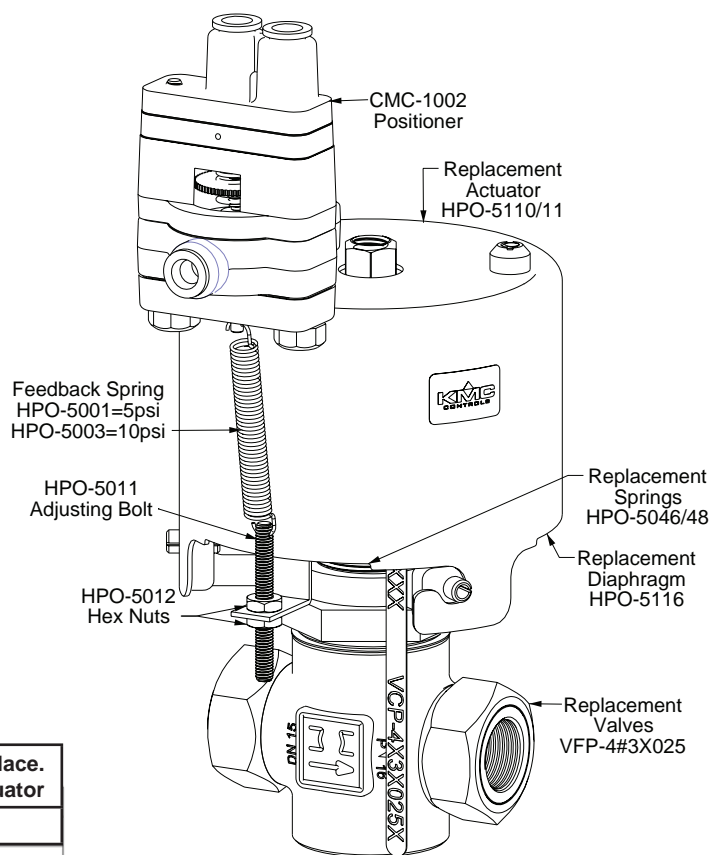
CMC-1002 Replacement positive positioner to fit any VCP valve whose model number ends in 0 (zero) (VCP-XXXXXX0); see the (Pneumatic) Actuator Accessories and Repair Parts section for more information on the CMC-1002

Model #	Valve	Spring Range	Replace. Spring	Replace. Actuator
VCP-413X0260	VFP-413X026 N.O., 2-Way	3-8 psi	HPO-5049	HPO-5121
VCP-413X0261		3-8 psi	HPO-5049	HPO-5121
VCP-413X0262		8-13 psi	HPO-5051	HPO-5122
VCP-413X0263		3-13 psi	HPO-5050	HPO-5123
VCP-423X0260	VFP-423X026 N.C., 2-Way	8-13 psi	HPO-5051	HPO-5120
VCP-423X0261		3-8 psi	HPO-5049	HPO-5121
VCP-423X0262		8-13 psi	HPO-5051	HPO-5122
VCP-423X0263		3-13 psi	HPO-5050	HPO-5123
VCP-433X0260	VFP-433X026 3-Way Mixing	8-13 psi	HPO-5051	HPO-5120
VCP-433X0261		3-8 psi	HPO-5049	HPO-5121
VCP-433X0262		8-13 psi	HPO-5051	HPO-5122
VCP-433X0263		3-13 psi	HPO-5050	HPO-5123

X:	Valve Size:
1	1/2"
2	3/4"
3	1"
4	1 1/4"
5	1 1/2"
6	2"



VCP-4X3X0240 and VCP-4X3X0250 with Positioner;
VCP-4X3X024X and VCP-4X3X025X without Positioner



Model #	Valve	Spring Range	Replace. Spring	Replace. Actuator
Silicone Diaphragm				
VCP-413X0240	VFP-413X025 N.O., 2-Way	3-8 psi	HPO-5046	HPO-5110
VCP-413X0241		3-8 psi	HPO-5046	
VCP-413X0242		8-13 psi	HPO-5048	
VCP-413X0243		3-13 psi	HPO-5047	
VCP-423X0240	VFP-423X025 N.C., 2-Way	8-13 psi	HPO-5048	
VCP-423X0241		3-8 psi	HPO-5046	
VCP-423X0242		8-13 psi	HPO-5048	
VCP-423X0243		3-13 psi	HPO-5047	
VCP-433X0240	VFP-433X025 3-Way Mixing	8-13 psi	HPO-5048	
VCP-433X0241		3-8 psi	HPO-5046	
VCP-433X0242		8-13 psi	HPO-5048	
VCP-433X0243		3-13 psi	HPO-5047	

Model #	Valve	Spring Range	Replace. Spring	Replace. Actuator
Neoprene Diaphragm				
VCP-413X0250	VFP-413X025 N.O., 2-Way	3-8 psi	HPO-5046	HPO-5111
VCP-413X0251		3-8 psi	HPO-5046	
VCP-413X0252		8-13 psi	HPO-5048	
VCP-413X0253		3-13 psi	HPO-5047	
VCP-423X0250	VFP-423X025 N.C., 2-Way	8-13 psi	HPO-5048	
VCP-423X0251		3-8 psi	HPO-5046	
VCP-423X0252		8-13 psi	HPO-5048	
VCP-423X0253		3-13 psi	HPO-5047	
VCP-433X0250	VFP-433X025 3-Way Mixing	8-13 psi	HPO-5048	
VCP-433X0251		3-8 psi	HPO-5046	
VCP-433X0252		8-13 psi	HPO-5048	
VCP-433X0253		3-13 psi	HPO-5047	

X: Valve Size:	
1	1/2"
2	3/4"
3	1"
4	1 1/4"
5	1 1/2"
6	2"



VCP-41/42/43 Series (VFP) Globe Valve Bodies



11.4 Sq.-In. Top

2-Way, Normally Open

VFP-4131025	1/2", 4.6 Cv
VFP-4132025	3/4", 6.9 Cv
VFP-4133025	1", 11.6 Cv
VFP-4134025	1-1/4", 18.5 Cv
VFP-4135025	1-1/2", 29.0 Cv
VFP-4136025	2", 46.4 Cv

2-Way, Normally Closed

VFP-4231025	1/2", 4.6 Cv
VFP-4232025	3/4", 6.9 Cv
VFP-4233025	1", 11.6 Cv
VFP-4234025	1-1/4", 18.5 Cv
VFP-4235025	1-1/2", 29.0 Cv
VFP-4236025	2", 46.4 Cv

3-Way

VFP-4331025	1/2", 4.6 Cv
VFP-4332025	3/4", 6.9 Cv
VFP-4333025	1", 11.6 Cv
VFP-4334025	1-1/4", 18.5 Cv
VFP-4335025	1-1/2", 29.0 Cv
VFP-4336025	2", 46.4 Cv

43.4 Sq.-In. Top

2-Way, Normally Open

VFP-4131026	1/2", 4.6 Cv
VFP-4132026	3/4", 6.9 Cv
VFP-4133026	1", 11.6 Cv
VFP-4134026	1-1/4", 18.5 Cv
VFP-4135026	1-1/2", 29.0 Cv
VFP-4136026	2", 46.4 Cv

2-Way, Normally Closed

VFP-4231026	1/2", 4.6 Cv
VFP-4232026	3/4", 6.9 Cv
VFP-4233026	1", 11.6 Cv
VFP-4234026	1-1/4", 18.5 Cv
VFP-4235026	1-1/2", 29.0 Cv
VFP-4236026	2", 46.4 Cv

3-Way

VFP-4331026	1/2", 4.6 Cv
VFP-4332026	3/4", 6.9 Cv
VFP-4333026	1", 11.6 Cv
VFP-4334026	1-1/4", 18.5 Cv
VFP-4335026	1-1/2", 29.0 Cv
VFP-4336026	2", 46.4 Cv



VCP-41/42/43/51/52/53/54 Positioner Feedback Springs, 5# and 10#



Feedback Spring	Color Code	PSI Feedback
HPO-5001	Gold	5
HPO-5003	Green	5
HPO-5006	White	5
HPO-5007	Black	10
HPO-5008	Red	10

Valve Series	Size	5# Spring	10# Spring
VCP-5150/5250	2.5" to 4.0"	HPO-5001	HPO-5003
VCP-5150/5250	5" to 6"	HPO-5006	HPO-5008
VCP-5170/5270	2.5" to 3"	HPO-5001	N/A
VCP-5170/5270	4" to 6"	HPO-5006	HPO-5008
VCP-5360	2.5" to 3"	HPO-5001	N/A
VCP-5360	4" to 6"	HPO-5006	HPO-5008
VCP-5450	2.5" to 4"	HPO-5001	HPO-5003
VCP-5450	5" to 6"	HPO-5006	HPO-5008

NOTE: The obsolete 75 sq. in. actuator has the following exceptions:

Valve Series	Size	5# Spring	10# Spring
VCP-5152/ 5252	4.0"	HPO-5005	HPO-5007
VCP-5170/ 5270	2.5" to 3"	HPO-5005	HPO-5007
VCP--5360	2.5" to 3"	HPO-5005	HPO-5007
VCP-5450	4" to 6"	HPO-5005	HPO-5007



VCP-51/52/53/54 Accessories

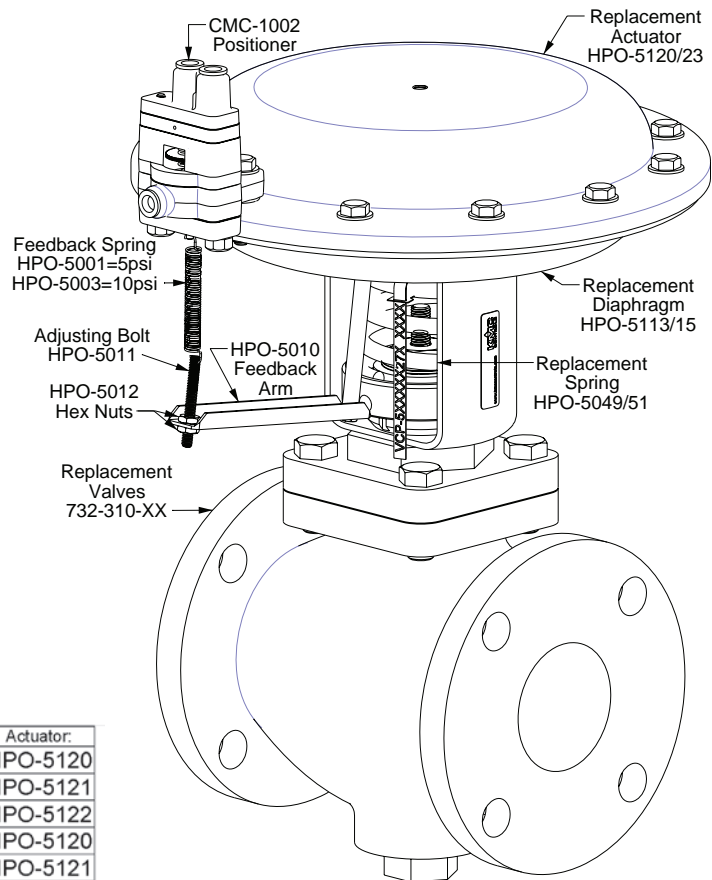
SEE ALSO: The **VCP-41/42/43/51/52/53/54 Positioner Feedback Springs, 5# and 10#** section.

CMC-1002 Replacement positive positioner to fit any VCP valve whose model number ends in 0 (zero) (VCP-XXXXXX0); see the (Pneumatic) Actuator Accessories and Repair Parts section for more information on the CMC-1002

HPO-5016* Positive positioner kit to add metal positioner (CMC-1002) to any existing VCP-4 series valve with a 43.4 sq. in. actuator; includes instructions and CMC-1002

*▲ CAUTION

Adding an HPO-5016 positive positioner kit to a 43.4 square inch actuator requires partially disassembling and reassembling the actuator. The very high spring pressure makes performing this process in the field difficult and dangerous. Purchasing a new valve/actuator assembly with a factory-installed positioner is highly recommended.



**VCP-5XXXX270 with Positioner;
VCP-5XXXX27X without Positioner**

Model #:	Valve #:	Valve Type:	Spring:	Range:	Actuator:
VCP-515AA270	732-310-XX	N.O. 2-Way Dbl-Seat	HPO-5049	3-8psi	HPO-5120
VCP-515AA271			HPO-5049	3-8psi	HPO-5121
VCP-515AA272			HPO-5051	8-13psi	HPO-5122
VCP-517BB270	732-310-XX	N.O. 2-Way Sgl-Seat	HPO-5049	3-8psi	HPO-5120
VCP-517BB271			HPO-5049	3-8psi	HPO-5121
VCP-517BB272			HPO-5051	8-13psi	HPO-5122
VCP-525CC270	732-310-XX	N.C. 2-Way Dbl-Seat	HPO-5049	3-8psi	HPO-5120
VCP-525CC271			HPO-5049	3-8psi	HPO-5121
VCP-525CC272			HPO-5051	8-13psi	HPO-5122
VCP-527DD270	732-310-XX	N.C. 2-Way Sgl-Seat	HPO-5049	3-8psi	HPO-5120
VCP-527DD271			HPO-5049	3-8psi	HPO-5121
VCP-527DD272			HPO-5051	8-13psi	HPO-5122
VCP-536EE270	732-310-XX	3-Way Mixing	HPO-5049	3-8psi	HPO-5120
VCP-536EE271			HPO-5049	3-8psi	HPO-5121
VCP-536EE272			HPO-5051	8-13psi	HPO-5122
VCP-545FF270	732-310-XX	3-Way Diverting	HPO-5049	3-8psi	HPO-5120
VCP-545FF271			HPO-5049	3-8psi	HPO-5121
VCP-545FF272			HPO-5051	8-13psi	HPO-5122

Model #/Valve #:	Model #/Valve #:	Model #/Valve #:	Mat'l:	Rating:	Size:
AA: XX:	CC: XX:	FF: XX:	Bz	125	2.5"
01 01	01 31	31 11	SS	250	
02 06	02 36	32 66	SS	125	
03 61	03 91	33 16	Bz	125	3"
11 62	11 32	41 12	SS	250	
12 02	12 37	42 67	SS	125	
13 07	13 92	43 17	Bz	125	4"
21 03	21 33	51 13	SS	250	
22 08	22 38	52 68	SS	125	
23 63	23 93	53 18	SS	250	

Model #/Valve #:	Model #/Valve #:	Model #/Valve #:	Mat'l:	Rating:	Size:
BB: XX:	DD: XX:	EE: XX:	Bz	125	2.5"
01 41	01 51	21 21	SS	250	
02 46	02 56	22 26	SS	125	
03 81	03 53	23 71	Bz	125	3"
04 86	04 58	24 76	Bz	250	
11 42	11 52	31 22	SS	250	
12 47	12 57	32 27	SS	125	4"
13 82	13 54	33 72	Bz	125	
14 87	14 59	34 77	Bz	250	

Diaphragms:

HPO-5113	43.4 sq. inches, silicone*
HPO-5115	43.4 sq. inches, EPDM*
HPO-5119	84 sq. in. diaphragm
HPO-5118	115 sq. inches

Packing Kits:

HPO-5038	Graphite, 3/8" stem, flanged valves
HPO-5039	Graphite, 1/2" stem, 115 sq. in. top, flanged valves
HPO-5088	V-ring, 3/8" stem, flanged valves

NOTE: Graphite packing was used on all flanged valves prior to date code 9723, on certain valves up to date code 9737, and on all flanged valves using the 115 sq.-inch actuator.



For valves between date codes 9723 and 9737, packing used is determined by the brass bonnet size. For 1" diameter (14 threads per inch) brass bonnets, graphite packing was used. For 1-3/8" diameter (18 threads per inch) brass bonnets, V-ring packing was used.

V-ring packing is used on all valves since date code 9737, with the exception of those using 115 sq.-inch actuators.



VCP-61/62/63 Accessories



HPO-5020 Replacement nut, VCP-61/62/63



HPO-5014 Packing Kit, VCP-61/62/63



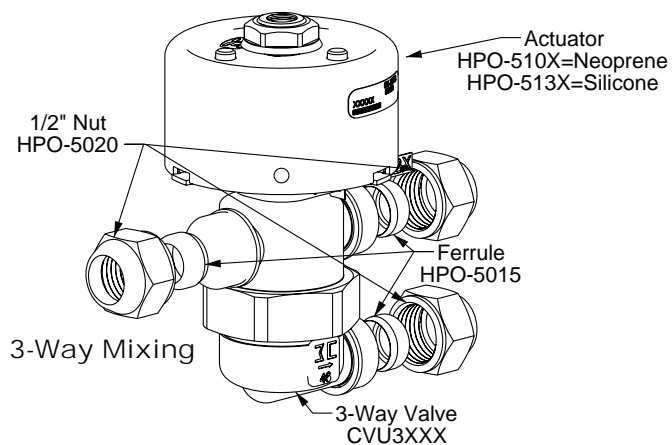
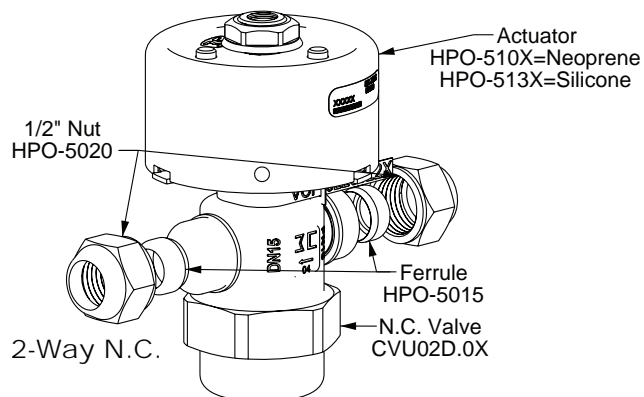
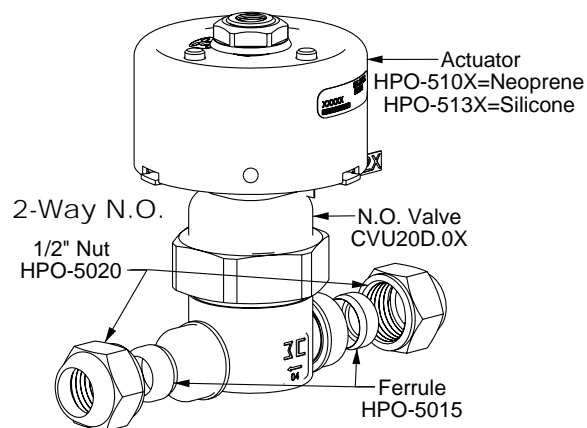
HPO-5015 Replacement ferrule, 1/2"; VCP-61/62/63



HPO-5024 1/2" MPT fitting



HPO-5025 1/2" Sweat Fitting



VCP-5XXXX270 with Positioner;
VCP-5XXXX27X without Positioner



Replacement Valve Top with Spring and Neoprene Diaphragm:

Spring Range	2.3 Cv	Other Cvs
3-8 psi	HPO-5104	HPO-5101
8-13 psi	HPO-5105	HPO-5102
3-13 psi	HPO-5106	HPO-5103
9-14 psi	HPO-5108	HPO-5107



Replacement Valve Top with Spring and Silicone Diaphragm:

Spring Range	2.3 Cv	Other Cvs
3-8 psi	HPO-5134	HPO-5131
8-13 psi	HPO-5135	HPO-5132
3-13 psi	HPO-5136	HPO-5133
9-14 psi	HPO-5138	HPO-5137

NOTE: Silicone is more heat and ozone resistant than neoprene.

	2-Way N.O.		2-Way N.C.		3-Way Mixing		Range:	Actuator: X=2 Silicone	Actuator: X=3 Neoprene
	Model #:	Valve:	Model #:	Valve:	Model #:	Valve:			
0.7 Cv	VCP-612602X1	CVU20D.04	VCP-622602X1	CVU02D.04			3-8psi	HPO-5131	HPO-5101
	VCP-612602X2		VCP-622602X2				8-13psi	HPO-5132	HPO-5102
	VCP-612602X3		VCP-622602X3				3-13psi	HPO-5133	HPO-5103
	VCP-612602X4		VCP-622602X4				9-14psi	HPO-5137	HPO-5107
1.1 Cv	VCP-612702X1	CVU20D.05	VCP-622702X1	CVU02D.05			3-8psi	HPO-5131	HPO-5101
	VCP-612702X2		VCP-622702X2				8-13psi	HPO-5132	HPO-5102
	VCP-612702X3		VCP-622702X3				3-13psi	HPO-5133	HPO-5103
	VCP-612702X4		VCP-622702X4				9-14psi	HPO-5137	HPO-5107
1.8 Cv	VCP-612802X1	CVU20D.06	VCP-622802X1	CVU02D.06	VCP-632802X1	CVU3S.46	3-8psi	HPO-5131	HPO-5101
	VCP-612802X2		VCP-622802X2		VCP-632802X2		8-13psi	HPO-5132	HPO-5102
	VCP-612802X3		VCP-622802X3		VCP-632802X3		3-13psi	HPO-5133	HPO-5103
	VCP-612802X4		VCP-622802X4		VCP-632802X4		9-14psi	HPO-5137	HPO-5107
2.3 Cv	VCP-612902X1	CVU20DXET	VCP-622902X1	CVU02DXET	VCP-632902X1	CVU3SXET	3-8psi	HPO-5134	HPO-5104
	VCP-612902X2		VCP-622902X2		VCP-632902X2		8-13psi	HPO-5135	HPO-5105
	VCP-612902X3		VCP-622902X3		VCP-632902X3		3-13psi	HPO-5136	HPO-5106
	VCP-612902X4		VCP-622902X4		VCP-632902X4		9-14psi	HPO-5138	HPO-5108
2.9 Cv	VCP-613002X1	CVU20D.07	VCP-623002X1	CVU02D.07	VCP-633002X1	CVU3S.55	3-8psi	HPO-5131	HPO-5101
	VCP-613002X2		VCP-623002X2		VCP-633002X2		8-13psi	HPO-5132	HPO-5102
	VCP-613002X3		VCP-623002X3		VCP-633002X3		3-13psi	HPO-5133	HPO-5103
	VCP-613002X4		VCP-623002X4		VCP-633002X4		9-14psi	HPO-5137	HPO-5107

VCP-61/62/63 (VFP) Series Valve Bodies

1/2", Normally Open:

VFP-6126023	0.7 Cv
VFP-6127023	1.1 Cv
VFP-6128023	1.8 Cv
VFP-6129023	2.3 Cv
VFP-6130023	2.9 Cv

1/2", Normally Closed:

VFP-6226023	0.7 Cv
VFP-6227023	1.1 Cv
VFP-6228023	1.8 Cv
VFP-6229023	2.3 Cv
VFP-6230023	2.9 Cv

1/2", 3-way:

VFP-6328023	1.8 Cv
VFP-6329023	2.3 Cv
VFP-6330023	2.9 Cv





Valves

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

VCP-11/21 Series Cross-Reference



See equivalent VCZ-41 valves.

VCP-34 Series Cross-Reference

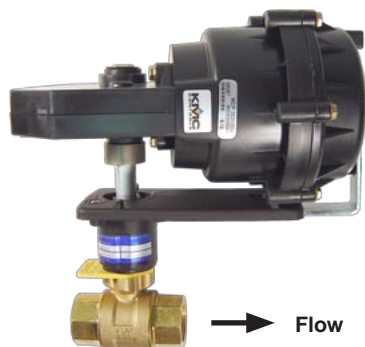


See equivalent VCZ-44 valves.



VCB-41/42 Series

2-Way, NPT, Control Ball Valves (1/2 to 3")



Specifications

Service	Hot or chilled water, up to 50% glycol
Connections	Female NPT
Flow Characteristics	Equal percentage (with optimizer insert)
Rangeability	500:1
Leakage	ANSI Class IV (<0.01% of Cv)
Max. Close Off	1/2" to 1", 130 psi (896 kPa) 1-1/4" to 3", 100 psi (689 kPa)
Temperature Limits	
Medium	-22° to 250° F (-30° to 121° C)
Operating	-20° to 180° F (-29° to 82° C)
Shipping	-40° to 140° F (-40° to 60° C)
NOTE:	If the application requires operation near the maximum temperature and maximum pressure, add a tubing restraint to the actuator connection.
Body Rating	360 to 600 psi (temperature dependent—see chart under VCB-46 Series)
Valve Body Material	
Body	Forged brass ASTM B283
Stem	Brass
Ball	Nickel-plated brass
Flow inserts	Glass filled polymer
Stem Seals	Dual Teflon & 1 EPDM O-ring
Ball Seals	Teflon seals w/ EPDM O-rings
Supply Pressure	0 to 20 psig (138 kPa) operating; 30 psig (207 kPa) maximum (see NOTE under Temperature Limits)
Supply Connection	3/16" (5 mm) fitting for 1/4" (6 mm) OD polyethylene tubing

Accessories and Replacement Parts

HLO-1006	Replacement drive bushing
HLO-1009	Replacement push-on shaft retainer ring
HPO-0038	Replacement diaphragm
HPO-5072	Repair kit (bracket/linkage)

These two-way, NPT, ball valves are designed for the precise control of hot or chilled water in pneumatic HVAC applications. Valves range in size from 1/2 to 3 inches and feature an optimizing insert (except for indicated models), which reduces and characterizes the ball opening for equal percentage flow. This design allows the output at the coil to be linear when compared to the open area of the ball.

The valve's dual Teflon ball and stem seals and EPDM O-rings provide leak-proof shut off and meet both "packed" and "packless" construction specifications. The reduced torque seals and O-rings eliminate the need for high torque actuators. KMC's MCP-3631 series actuators work on all valve sizes. The actuator can easily be flipped over in the field to change the fail direction.

Models

VCB-4 X XXX BF X

Fail To

- 1: NO
- 2: NC

Actuators

- E: MCP-3631-5000, 8 to 13 psi range
- F: MCP-3631-3000, 5 to 10 psi range

Pipe Size/Cv

02B: 1/2"/0.38 Cv
 02D: 1/2"/0.68 Cv
 02F: 1/2"/1.3 Cv
 02H: 1/2"/2.6 Cv
 02K: 1/2"/4.7 Cv
 02M: 1/2"/11.7 Cv*
 03G: 3/4"/2.4 Cv
 03K: 3/4"/4.3 Cv
 03L: 3/4"/10.1 Cv
 03N: 3/4"/14.7 Cv*
 04J: 1"/9.0 Cv
 04M: 1"/15.3 Cv
 04Q: 1"/28.4 Cv*
 05F: 1-1/4"/14.9 Cv

05K: 1-1/4"/36.5 Cv
 05L: 1-1/4"/41.1 Cv*
 06D: 1-1/2"/22.8 Cv
 06G: 1-1/2"/41.3 Cv
 06J: 1-1/2"/73.9 Cv*
 08D: 2"/41.7 Cv
 08G: 2"/71.1 Cv
 08M: 2"/108.0 Cv*
 10C: 2-1/2"/55.0 Cv
 10D: 2-1/2"/72.0 Cv
 10G: 2-1/2"/101.0 Cv
 12C: 3"/82.0 Cv
 12D: 3"/124.0 Cv

* Full-port, no optimizer insert

NOTE: For more information, see the MCP-3631 series actuators section.

NOTE: For more information, see the MCP-3631 series actuators section.

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

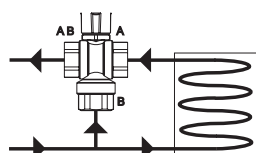


VCB-46 Series

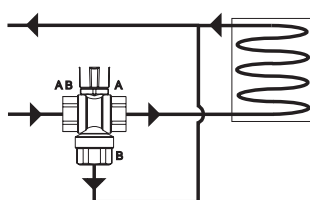
3-Way, Mixing or Diverting, NPT, Control Ball Valves (1/2 to 2-1/2")



Mixing Flow Action:
Full CCW (w/ air) = Port A to AB
Full CW (w/o air) = Port B to AB



Diverting Flow Action:
Full CCW (w/ air) = Port AB to A
Full CW (w/o air) = Port AB to B



The VCB-46 series, NPT, three-way, **mixing or diverting**, control ball valves are designed for the precise control of hot or chilled water in pneumatic HVAC applications. Valves range in size from 1/2 to 2-1/2 inches and feature an optimizing insert (except for indicated models), which reduces and characterizes the ball opening for equal percentage flow. This design allows the output at the coil to be linear when compared to the open area of the ball.

The valve's dual Teflon ball and stem seals and EPDM O-rings provide leak-proof shut off and meet both "packed" and "packless" construction specifications. The reduced torque seals and O-rings eliminate the need for high torque actuators. KMC's MCP-3631 series actuators work on all valve sizes. The actuator can easily be flipped over in the field to change the fail direction.

Specifications

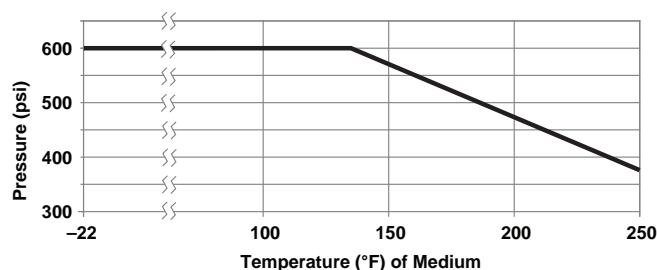
Service	Hot or chilled water, up to 50% glycol
Connections	Female NPT
Flow Characteristics	Equal percentage (with optimizer insert)
Rangeability	500:1
Leakage	ANSI Class IV (<0.01% of Cv)
Max. Close Off	1/2 to 1" = 50 psi (345 kPa); 1-1/4 to 2-1/2" = 40 psi (276 kPa)

Temperature Limits

Medium	-22° to 250° F (-30° to 121° C)
Operating	-20° to 180° F (-29° to 82° C)
Shipping	-40° to 140° F (-40° to 60° C)

NOTE: If the application requires operation near the maximum temperature and maximum pressure, add a tubing restraint to the actuator connection.

Body Rating 360 to 600 psi (temperature dependent — see chart below)



Models

VCB-46 XXX BF X

Actuators

- E: MCP-3631-5000, 8 to 13 psi range
- F: MCP-3631-3000, 5 to 10 psi range

Pipe Size/Cv

- 02C: 1/2"/0.6 Cv
- 02E: 1/2"/1.0 Cv
- 02G: 1/2"/2.4 Cv
- 02J: 1/2"/4.3 Cv
- 02L: 1/2"/8.0 Cv
- 03G: 3/4"/2.4 Cv
- 03J: 3/4"/3.8 Cv
- 03M: 3/4"/11 Cv*
- 04H: 1"/8.6 Cv

- 04N: 1"/22.3 Cv
- 05E: 1-1/4"/12.7 Cv
- 05J: 1-1/4"/34.1 Cv*
- 06E: 1-1/2"/23.5 Cv
- 06H: 1-1/2"/61.1 Cv
- 08B: 2"/38.2 Cv
- 08N: 2"/108.5 Cv
- 10E: 2-1/2"/74.1 Cv
- 10F: 2-1/2"/99.5 Cv*

* Full-port, no optimizer insert

Valve Body Material

Body	Forged brass ASTM B283
Stem	Brass
Ball	Nickel-plated brass
Flow inserts	Glass filled polymer
Stem Seals	Dual Teflon & one EPDM O-ring
Ball Seals	Teflon seals w/ EPDM O-rings

Actuator Material

Body	Glass-filled nylon
Diaphragm	Neoprene

Normal Rotation

90°

Supply Pressure

0 to 20 psig (138 kPa) operating; 30 psig (207 kPa) maximum (see NOTE under Temperature Limits)

Supply Connection

3/16" (5 mm) fitting for 1/4" (6 mm) OD polyethylene tubing

Accessories and Replacement Parts

HLO-1006	Replacement drive bushing
HLO-1009	Replacement push-on shaft retainer ring
HPO-0038	Replacement diaphragm
HPO-5072	Repair kit (bracket/linkage)



VCP-41/42 Series

Two-Way, NO or NC, Control Valves (1/2" to 2")



These are two-way valves for control of hot or chilled water or low pressure steam. The VCP-41 series are **normally open**, and the VCP-42 series are **normally closed**. Valves are single-seated and range in sizes from 1/2" to 2" with equal percentage flow characteristics. Self-adjusting packing and stainless-steel stems make these valves ideal for many applications. Positive positioners may be furnished if required. These valves also meet ANSI Class 4 specifications.

Models

VCP-4 X XX 02 X X

Spring Range:

- 0: Positioner Top*
- 1: 3-8# Top
- 2: 8-13# Top
- 3: 3-13# Top

Actuator Size:

- 4: 11.4" Silicone Top
- 5: 11.4" Neoprene Top
- 6: 43.4" Neoprene Top

Size / Cv Range:

- 31: 1/2"/4.6
- 32: 3/4"/6.9
- 33: 1"/11.6
- 34: 1-1/4"/18.5
- 35: 1-1/2"/29.0
- 36: 2"/46.4

NO/NC:

- 1: Normally Open
- 2: Normally Closed

*NOTE: Positioner top contains an 3 to 8 psi internal spring.

NOTE: To order these valves with a silicone diaphragm, contact the factory.

SEE ALSO: The [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section.

Specifications

Action	NO (VCP-41) or NC (VCP-42)
Rangeability	30 to 1
Body Rating	250 psi (1724 kPa)
Valves Sizes	1/2" through 2" NPT
Body Type	Single seated, screwed female connections
Flow Characteristics	Equal percentage
Cv Rating	1/2" = 4.6 3/4" = 6.9 1" = 11.6 1-1/4" = 18.5 1-1/2" = 29.0 2" = 46.4
Steam Rating	15.3 psig (105 kPa)
Material	Bronze body and seat Stainless steel stem (type 303) Brass plug with EPDM discs V-ring type self-adjusting EPDM packing Neoprene or silicone diaphragm Steel top with Epoxide varnish Alloy steel spring
Air Connection	1/8" FPT, 11.4 sq.in. actuator 1/4" FPT, 43.4 sq.in. actuator
Air Pressure	25 psi (172 kPa) maximum
Actuator	
Sizes	11.4 sq. in., 43.4 sq. in.
Type	Pneumatic
Action	Direct
Spring Ranges	3 to 8 psi (21 to 55 kPa) 8 to 13 psi (55 to 90 kPa) 3 to 13 psi (21 to 90 kPa)
Temperature Limits	
Medium	32 to 250° F (0 to 121° C)
Ambient	35 to 175° F (1.7 to 79° C)
Shipping	-40 to 180° F (-40 to 82° C)

Accessories and Repair Parts

CMC-1002	Replacement positive positioner
HPO-5001*	5 psi (gold) positioner feedback spring
HPO-5003*	10 psi (green) positioner feedback spring
HPO-5010	Positioner feedback arm for the 43.4 sq.in. actuator
HPO-5013	Replacement packing kit
HPO-5110	11.4 sq. in. Neoprene diaphragm kit
HPO-5111	11.4 sq. in. silicone diaphragm kit
HPO-5113	43.4 sq. in. silicone diaphragm only
HPO-5115	43.4 sq. in. EPDM diaphragm only

* For the 43.4 sq. in. actuator

NOTE: Consult factory for stem-plug-disc assembly part number.

⚠ CAUTION

Using mineral oil lubricants or other incompatible substances in system fluids may damage EPDM rubber seals in valves. Before using any lubricant or additive in a water or ethylene glycol base, consult the substance manufacturer for compatibility with EPDM (Ethylene Propylene Diene Monomer).

**VCP-43 Series****Three-Way, Mixing, Control Valves (1/2" to 2")**

The VCP-43 series are 3-way mixing valves for control of hot or chilled water. Valves are furnished and range in sizes from 1/2" to 2" with linear flow characteristics. Self adjusting packing and stainless steel stems make these valves ideal for many applications. Positive positioners may be furnished if required.

Specifications

Action	Three-way mixing
Rangeability	30 to 1
Body Rating	250 psi (1724 kPa)
Valve Sizes	1/2" through 2" NPT
Body Type	Three-way, screwed female connections
Flow Characteristics	Linear
Cv Rating	1/2" = 4.6 3/4" = 6.9 1" = 11.6 1-1/4" = 18.5 1-1/2" = 29.0 2" = 46.4
Material	Bronze body and seat Stainless-steel stem (type 303) Brass plug with EPDM discs V-ring type self-adjusting EPDM packing Neoprene or silicone diaphragm Steel top with Epoxide varnish Alloy steel spring
Air Connection	1/8" FPT, 11.4 sq. in. actuator 1/4" FPT, 43.4 sq. in. actuator
Control Signal Input	25 psi (172 kPa) maximum
Actuator	
Sizes	11.4 sq. in.; 43.4 sq. in.
Type	Pneumatic
Action	Direct
Ranges	3 to 8 psi (21 to 55 kPa) 8 to 13 psi (55 to 90 kPa) 3 to 13 psi (21 to 90 kPa)
Temperature Limits	
Medium	32 to 250° F (0 to 121° C)
Ambient	35 to 175° F (1.7 to 79° C)
Shipping	-40 to 180° F (-40 to 82° C)

▲ CAUTION

Using mineral oil lubricants or other incompatible substances in system fluids may damage EPDM rubber seals in valves. Before using any lubricant or additive in a water or ethylene glycol base, consult the substance manufacturer for compatibility with EPDM (Ethylene Propylene Diene Monomer).

Models

VCP-43	XX	02	Y	Z	
					Actuator Range
					0: Positioner Top*
					1: 3-8# Top
					2: 8-13# Top
					3: 3-13# Top
					Actuator Size/Material
					4: 11.4" Silicone Top
					5: 11.4" Neoprene Top
					6: 43.4" Neoprene Top
					Size / Cv Range
					31: 1/2"/4.6
					32: 3/4"/6.9
					33: 1"/11.6
					34: 1-1/4"/18.5
					35: 1-1/2"/29.0
					36: 2"/46.4

*Note: Positioner top contains 8-13 psi internal spring.

Accessories and Repair Parts

CMC-1002	Replacement positive positioner
HPO-5001	5 psi (gold) positioner feedback spring
HPO-5003	10 psi (green) positioner feedback spring
HPO-5010	Positioner feedback arm for the 43.4 sq. in. actuator
HPO-5013	Replacement packing kit
HPO-5110	11.4 sq. in. N eoprene diaphragm kit
HPO-5111	11.4 sq. in. silicone diaphragm kit
HPO-5113	43.4 sq. in. silicone diaphragm only
HPO-5115	43.4 sq. in. EPDM diaphragm only

NOTE: Consult factory for stem-plug-disc assembly part number.

NOTE: To order these valves with a silicone diaphragm, contact the factory.

SEE ALSO: [Valve \(Three-Way\) Application Guide](#), [Valve Sizing Guide](#), and [Valve Effective Cv with Increased Pipe Size](#) in the [Reference](#) section.



VCP-5150 Series, Two-Way, NO, Double-Seated Flanged Valves

See equivalent VCF Series, Two-Way, Control BUTTERFLY Valve.

Repair Parts

CMC-1002	Metal positioner
HPO-5016	Positioner kit (43.4 sq. in.)
HPO-5113	43.4 sq. in. silicone diaphragm
HPO-5115	43.4 sq. in. EPDM diaphragm
HPO-5119	84 sq. in. diaphragm
HPO-5088	V-ring packing kit

VCP-5170 Series Two-Way, NO, Single-Seated Flanged Valves Cross-Reference

See equivalent VCF Series, Two-Way, Control BUTTERFLY Valve.

Repair Parts

CMC-1002	Metal positioner
HPO-5016	Positioner kit (43.4 sq. in.)
HPO-5113	43.4 sq. in. silicone diaphragm
HPO-5115	43.4 sq. in. EPDM diaphragm
HPO-5119	84 sq. in. diaphragm
HPO-5118	115 sq. in. replacement diaphragm
HPO-5088	V-ring packing kit
HPO-5039	Packing kit for valves with 115 sq. in. top

SEE ALSO: The [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section.

VCP-5250 Series, Two-Way, NC, Double-Seated Flanged Valves Cross-Reference

See equivalent VCF Series, Two-Way, Control BUTTERFLY Valve.

Repair Parts

CMC-1002	Metal positioner
HPO-5016	Positioner kit (43.4 sq. in.)
HPO-5113	43.4 sq. in. silicone diaphragm
HPO-5115	43.4 sq. in. EPDM diaphragm
HPO-5119	84 sq. in. diaphragm
HPO-5088	V-ring packing kit, non-adjustable V-ring, 3/8" stem

SEE ALSO: The [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section.

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).



VCP-5270 Series Two-Way, NC, Single-Seated Flanged Valves Cross-Reference

See equivalent VCF Series, Two-Way, Control BUTTERFLY Valve.

SEE ALSO: The *(Pneumatic) Actuator Accessories and Repair Parts* section and the *Compressed Air Accessories* section.

Repair Parts

CMC-1002	Metal positioner
HPO-5016	Positioner kit (43.4 sq. in.)
HPO-5113	43.4 sq. in. silicone diaphragm
HPO-5115	43.4 sq. in. EPDM diaphragm
HPO-5119	84 sq. in. diaphragm
HPO-5118	115 sq. in. diaphragm
HPO-5088	Packing kit, non-adjustable V-ring, 3/8" stem
HPO-5039	Packing kit, valves with 115 sq. in. top, 1/2" stem

VCP-5360 Series, Three-Way, Mixing, Flanged Valves Cross-Reference

See equivalent VCF Series, Three-Way, Control BUTTERFLY Valve.

SEE ALSO: The *(Pneumatic) Actuator Accessories and Repair Parts* section and the *Compressed Air Accessories* section.

SEE ALSO: *Valve (Three-Way) Application Guide* and *Valve Sizing Guide* in the *Reference* section.

Repair Parts

CMC-1002	Metal positioner
HPO-5016	Positioner kit (43.4 sq. in.)
HPO-5113	43.4 sq. in. silicone diaphragm
HPO-5115	43.4 sq. in. EPDM diaphragm
HPO-5119	84 sq. in. diaphragm
HPO-5118	115 sq. in. diaphragm
HPO-5088	Packing kit, non-adjustable V-ring, 3/8" stem
HPO-5039	Packing kit, valves with 115 sq. in. top, 1/2" stem

VCP-5450 Series, Three-Way, Diverting, Flanged Valves Cross-Reference

See equivalent VCF Series, Three-Way, Control BUTTERFLY Valve.

SEE ALSO: The *(Pneumatic) Actuator Accessories and Repair Parts* section and the *Compressed Air Accessories* section.

SEE ALSO: *Valve (Three-Way) Application Guide* and *Valve Sizing Guide* in the *Reference* section.

Repair Parts

CMC-1002	Metal positioner
HPO-5016	Positioner kit (43.4 sq. in.)
HPO-5113	43.4 sq. in. silicone diaphragm
HPO-5115	43.4 sq. in. EPDM diaphragm
HPO-5118	115 sq. in. diaphragm
HPO-5119	84 sq. in. diaphragm
HPO-5088	Packing kit, non-adjustable V-ring, 3/8" stem
HPO-5039	Packing kit, valves with 115 sq. in. top, 1/2" stem



VCP-558 Series Two-Way, Metal-Seat Butterfly Valves Cross-Reference

See equivalent VCF Series, Two-Way, Rubber-Lined, Control Butterfly Valve.

SEE ALSO: The [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section.

Repair Parts

See Accessories under the relevant MCP-1040/1140/04xx, MCP-1160, MCP-5140, or MCP-5160 series actuators section.

SEE ALSO: [Valve Sizing Guide](#) in the [Reference](#) section.

VCP-568 Series Three-Way, Metal-Seat Butterfly Valves Cross-Reference

See equivalent VCF Series, Three-Way, Rubber-Lined, Control Butterfly Valve.

SEE ALSO: [Valve \(Three-Way\) Application Guide](#) and [Valve Sizing Guide](#) and [Valve Effective Cv with Increased Pipe Size](#) in the [Reference](#) section.

Repair Parts

See Accessories under the relevant MCP-1040/1140/04xx, MCP-1160, MCP-5140, or MCP-5160 series actuators section.

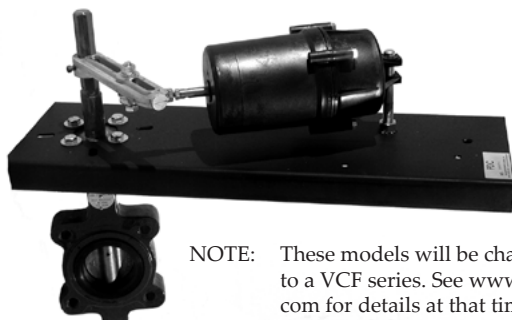
SEE ALSO: The [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section.

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).



VCP-559/VCF Series

Two-Way, Rubber-Lined Butterfly Valves (2" to 12")



NOTE: These models will be changing in 2009 to a VCF series. See www.kmccontrols.com for details at that time.

Specifications

Valve Size 2" through 12"
Body Type ANSI 125 and 150 wafer style flange mating. 2" to 6" have full lug body alignment holes. 8" to 12" have four alignment holes
Flow Characteristics Linear

Cv Rating @ 60° Rotation

2" = 63
 2-1/2" = 78
 3" = 133
 4" = 270
 5" = 525
 6" = 820
 8" = 1320
 10" = 1900
 12" = 2850

Maximum Differential Pressure

50 psi for water
 (15 psi for steam)

Pressure Drop (psi) @ 60° Rotation

2" = 2.8
 2-1/2" = 3.7
 3" = 3.0
 4" = 2.2
 5" = 1.4
 6" = 1.2
 8" to 12" = 1.3

Material

Body Epoxy coated cast iron
 Disc Aluminum bronze
 Seat EPDM
 Shaft 416 stainless steel
 Bushing Bronze

Temperature Limits

Medium* 25 to 280° F (4 to 138° C)
 Ambient -20 to 180° F (-29 to 82° C)
 Shipping -40 to 180° F (-40 to 82° C)
 * Freeze protection required for media below 32° F (0° C).

Accessories

See Accessories under the relevant MCP-1040/1140/04xx, MCP-1160, MCP-5140, or MCP-5160 series actuators section.

NOTE: These models will be changing in the summer of 2009 to a VCF series. See www.kmccontrols.com for details at that time.

These butterfly control valves are 2-way straight-through for high capacity control of low-pressure applications of hot water, chilled water, or low-pressure steam. The rubber-lined butterfly valve requires more actuator operating torque than a metal-seated butterfly valve and are to be used when reliable, bubble-tight, shut-off is essential.

These valves are set for 60° rotation for optimum flow and linear flow characteristics. The valves come assembled in the normally closed position. The unique universal system of brackets and linkage allow for easy field changes of the action

Models

VCP-559 X Y ZZZ

X		Y		ZZZ	
Size	Value for "X"	Actuator Qty. and Size	Value for "Y"	Actuator (Choose one)	Value for "ZZZ"
2"	1	One (1) 4" Actuator	1	MCP-1140 Plastic housing without positioner	4PO
2-1/2"	2			MCP-1140 Plastic housing with positioner	4PP
3"	3			MCP-5140 Metal housing without positioner	4MO
4"	4			MCP-5140 with positioner Metal housing with positioner	4MP
5"	5	Two (2) 4" Actuators	2	MCP-1140 Plastic housing without positioner	4PO
				MCP-1140 with positioner Plastic housing with positioner	4PP
6"	6			MCP-5140 Metal housing without positioner	4MO
				MCP-5140 Metal housing with positioner	4MP
5"	5	One (1) 6" Actuator	1	MCP-1160 Plastic housing without positioner	6PO
6"	6			MCP-1160 with positioner Plastic housing with positioner	6PP
8"	7			MCP-5160 Metal housing without positioner	6MO
				MCP-5160 Metal housing with positioner	6MP
10"	8	Two (2) 6" Actuators	2	MCP-1160 Plastic housing without positioner	6PO
				MCP-1160 Plastic housing with positioner	6PP
12"	9			MCP-5160 Metal housing without positioner	6MO
				MCP-5160 Metal housing with positioner	6MP

⚠ CAUTION

Using mineral oil lubricants or other incompatible substances in system fluids may damage EPDM rubber seals in valves. Before using any lubricant or additive in a water or ethylene glycol base, consult the substance manufacturer for compatibility with EPDM (Ethylene Propylene Diene Monomer).

SEE ALSO: [Valve Sizing Guide](#) and [Valve Effective Cv with Increased Pipe Size](#) in the [Reference](#) section.



VCP-569/VCF Series

Three-Way, Rubber-Lined Butterfly Valves (2" to 12")



NOTE: These models will be changing in 2009 to a VCF series. See www.kmcccontrols.com for details at that time.

Specifications

Valve Size	2" through 12"
Body Type	ANSI 125 and 150 wafer style flange mating. 2" to 6" have full lug body alignment holes. 8" to 12" have 4 alignment holes.
Body Rating	125# Cast Iron Tee
Flow Characteristics	Linear
Cv Rating at 60° Rotation	2" = 63 2-1/2" = 78 3" = 133 4" = 270 5" = 525 6" = 820 8" = 1320 10" = 1900 12" = 2850
Maximum Differential Pressure	50 psi for water (15 psi for steam)
Pressure Drop (psi) at 60° Rotation	2" = 2.8 2-1/2" = 3.7 3" = 3.0 4" = 2.2 5" = 1.4 6" = 1.2 8" to 12" = 1.3

Material

Body	Epoxy coated cast iron
Disc	Aluminum bronze
Seat	EPDM
Shaft	416 stainless steel
Bushing	Bronze

Temperature Limits

Medium*	25 to 280° F (4 to 138° C)
Ambient	-20 to 180° F (-29 to 82° C)
Shipping	-40 to 180° F (-40 to 82° C)

* Freeze protection required for media below 32° F (0° C).

These butterfly control valves are three-way, **mixing or diverting**, straight-through for high capacity control of low-pressure applications of hot water, chilled water, or low-pressure steam. The rubber-lined butterfly valve requires more actuator operating torque than a metal seat butterfly valve and are to be used when reliable, bubble-tight, shut-off is essential. These valves are ideally suited for 3-way mixing or diverting applications.

These valves are set for 60° rotation for optimum flow and linear flow characteristics. The unique universal system of brackets and linkage allow for easy field changes.

NOTE: These models will be changing in the summer of 2009 to a VCF series. See www.kmcccontrols.com for details at that time.

Models

VCP-569 X Y ZZZ

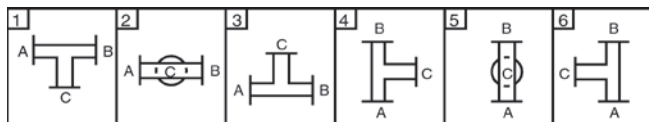
X		Y		ZZZ	
Size	Value for "X"	Actuator Qty. and Size	Y Value	Actuator (Choose one)	ZZZ Value
2	1	One (1) 4" Actuator	1	MCP-1140 Plastic housing without positioner	4PO
2-1/2"	2			MCP-1140 Plastic housing with positioner	4PP
3"	3			MCP-5140 Metal housing without positioner	4MO
4"	4			MCP-5140 Metal housing with positioner	4MP
5"	5	Two (2) 4" Actuators	2	MCP-1140 Plastic housing without positioner	4PO
6"	6			MCP-1140 Plastic housing with positioner	4PP
		One (1) 6" Actuator	1	MCP-5140 Metal housing without positioner	4MO
				MCP-5140 Metal housing with positioner	4MP
5"	5		1	MCP-1160 Plastic housing without positioner	6PO
				MCP-1160 Plastic housing with positioner	6PP
6"	6			MCP-5160 Metal housing without positioner	6MO
				MCP-5160 Metal housing with positioner	6MP
8"	7	Two (2) 6" Actuators	2	MCP-1160 Plastic housing without positioner	6PO
				MCP-1160 Plastic housing with positioner	6PP
				MCP-5160 Metal housing without positioner	6MO
				MCP-5160 Metal housing with positioner	6MP
10"	8	Four (4) 6" Actuators	4	MCP-1160 Plastic housing without positioner	6PO
				MCP-1160 Plastic housing with positioner	6PP
12"	9			MCP-5160 Metal housing without positioner	6MO
				MCP-5160 Metal housing with positioner	6MP

Available T Configurations:

A. Configurations are based on looking down on "T" and top of shafts.

B. Power valve is designated by first letter followed by slave, i.e. 1BC.

C. Bracket for power valve is positioned at 12 o'clock.



Accessories

See Accessories under the relevant MCP-1040/1140/04xx, MCP-1160, MCP-5140, or MCP-5160 series actuators section.

SEE ALSO: [Valve \(Three-Way\) Application Guide](#), [Valve Sizing Guide](#), and [Valve Effective Cv with Increased Pipe Size](#) in the [Reference](#) section.

**VCP-61/62 Series****Two-Way, NO or NC, Zone Control Valves (1/2")**

The VCP-61/62 series are two-way straight-through valves for control of hot or chilled water. These single-seat normally open (VCP-61 series) and normally closed (VCP-62 series) valves are available in 1/2" size with Cv ratings of 0.7 to 2.9.

Valves are furnished with stainless-steel stems, modulating plugs, and a wide selection of spring ranges. These valves are ideal for applications such as fan coil units, induction units, and applications requiring a compact size valve.

Models**VCP-XX YY ZZZZ****Actuator Range/Type**

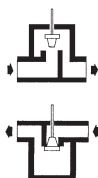
0221: 3–8# Silicone Top
0222: 8–13# Silicone Top
0223: 3–13# Silicone Top
0224: 9–14# Silicone Top
0231: 3–8# Neoprene Top
0232: 8–13# Neoprene Top
0233: 3–13# Neoprene Top
0234: 9–14# Neoprene Top

Cv

26: 0.7 Cv
27: 1.1 Cv
28: 1.8 Cv
29: 2.3 Cv
30: 2.9 Cv

Actuator Range

61: Normally Open
62: Normally Closed



SEE ALSO: The *(Pneumatic) Actuator Accessories and Repair Parts* section and the *Compressed Air Accessories* section.

CAUTION

Using mineral oil lubricants or other incompatible substances in system fluids may damage EPDM rubber seals in valves. Before using any lubricant or additive in a water or ethylene glycol base, consult the substance manufacturer for compatibility with EPDM (Ethylene Propylene Diene Monomer).

SEE ALSO: *VCZ-41/44 Series Zone Control Valves.*

Specifications**Body Type/Action**

VCP-61 Series Single-seated/normally open
VCP-62 Series Single-seated/normally closed

Body Rating**Valve Size****Flow Characteristics****Cv Ratings****Material****Air Connection****Air Pressure****Actuator**

Size 5.5 sq. inches (35.5 sq. cm)
Type Pneumatic
Action Direct

Spring Range**Temperature Limits**

Medium 32 to 250° F (0 to 121° C)
Ambient 35 to 175° F (1.7 to 79° C)
Shipping -40 to 180° F (-40 to 82° C)

Accessories and Repair Parts**Fittings and Packing**

HPO-5014 Replacement packing kit
HPO-5015 Replacement ferrule for connections
HPO-5020 Replacement nut for connections
HPO-5024 Optional 1/2" MPT fitting
HPO-5025 Optional 1/2" sweat fitting

Replacement Valve Tops—Neoprene Diaphragm

HPO-5104 2.3 Cv, 3 to 8 psi (21 to 55 kPa)
HPO-5105 2.3 Cv, 8 to 13 psi (55 to 90 kPa)
HPO-5106 2.3 Cv, 3 to 13 psi (21 to 90 kPa)
HPO-5108 2.3 Cv, 9 to 14 psi (62 to 96 kPa)
HPO-5101 All other Cv, 3 to 8 psi (21 to 55 kPa)
HPO-5102 All other Cv, 8 to 13 psi (55 to 90 kPa)
HPO-5103 All other Cv, 3 to 13 psi (21 to 90 kPa)
HPO-5107 All other Cv, 9 to 14 psi (62 to 96 kPa)

Replacement Valve Tops—Silicone Diaphragm

HPO-5134 2.3 Cv, 3 to 8 psi (21 to 55 kPa)
HPO-5135 2.3 Cv, 8 to 13 psi (55 to 90 kPa)
HPO-5136 2.3 Cv, 3 to 13 psi (21 to 90 kPa)
HPO-5138 2.3 Cv, 9 to 14 psi (62 to 96 kPa)
HPO-5131 All other Cv, 3 to 8 psi (21 to 55 kPa)
HPO-5132 All other Cv, 8 to 13 psi (55 to 90 kPa)
HPO-5133 All other Cv, 3 to 13 psi (21 to 90 kPa)
HPO-5137 All other Cv, 9 to 14 psi (62 to 96 kPa)



VCP-63 Series

Three-Way, Mixing, Zone Control Valves (1/2")



The VCP-63 series are three-way mixing valves for control of hot or chilled water. Valves are furnished with stainless-steel stems, modulating plugs, and a wide selection of spring ranges. These valves are ideal for applications such as fan coil units, induction units, and applications requiring a compact size valve.

Models

VCP-63 XX YYYY

Actuator Range/Type

0221: 3–8# Silicone Top
 0222: 8–13# Silicone Top
 0223: 3–13# Silicone Top
 0224: 9–14# Silicone Top
 0231: 3–8# Neoprene Top
 0232: 8–13# Neoprene Top
 0233: 3–13# Neoprene Top
 0234: 9–14# Neoprene Top

Size/Cv

28: 1.8 Cv
 29: 2.3 Cv
 30: 2.9 Cv



⚠ CAUTION

Using mineral oil lubricants or other incompatible substances in system fluids may damage EPDM rubber seals in valves. Before using any lubricant or additive in a water or ethylene glycol base, consult the substance manufacturer for compatibility with EPDM (Ethylene Propylene Diene Monomer).

⚠ CAUTION

Pneumatic devices must be supplied with clean, dry control air. Any other medium (e.g., oil or moisture contamination) will cause the device to fail.

SEE ALSO: [VCZ-41/44 Series Zone Control Valves](#).

Specifications

Action	Three-way, mixing
Body Rating	250 psi (1724 kPa)
Valve Size	1/2" male w/ compression nut and ferrule for 0.63" (16 mm) OD copper pipe
Flow Characteristics	Linear
Cv Ratings	1.8, 2.3, 2.9
Material	Brass body and seat. Stainless steel stem. Brass plug with EPDM discs. Self-adjusting EPDM, V-ring packing. Neoprene or Silicone Diaphragm. Steel top with Epoxide paint. Alloy steel spring.
Air Connection	1/8" FPT
Air Pressure	25 psi (172 kPa) maximum
Actuator	
Size	5.5 sq. inches (35.5 sq. cm.)
Type	Pneumatic
Action	Direct
Ranges	3–8 psi (21–55 kPa) 8–13 psi (55–90 kPa) 9–14 psi (62–96 kPa) 3–13 psi (21–90 kPa)
Temperature Limits	
Medium	32 to 250° F (0 to 121° C)
Ambient	35 to 175° F (1.7 to 79° C)
Shipping	–40 to 180° F (–40 to 82° C)

Accessories and Repair Parts

Fittings and Packing

HPO-5014	Replacement packing kit
HPO-5015	Replacement ferrule for connections
HPO-5020	Replacement nut for connections
HPO-5024	Optional 1/2" MPT fitting
HPO-5025	Optional 1/2" sweat fitting

Replacement Valve Tops—Neoprene Diaphragm

HPO-5104	2.3 Cv, 3 to 8 psi (21 to 55 kPa)
HPO-5105	2.3 Cv, 8 to 13 psi (55 to 90 kPa)
HPO-5106	2.3 Cv, 3 to 13 psi (21 to 90 kPa)
HPO-5108	2.3 Cv, 9 to 14 psi (62 to 96 kPa)
HPO-5101	All other Cv, 3 to 8 psi (21 to 55 kPa)
HPO-5102	All other Cv, 8 to 13 psi (55 to 90 kPa)
HPO-5103	All other Cv, 3 to 13 psi (21 to 90 kPa)
HPO-5107	All other Cv, 9 to 14 psi (62 to 96 kPa)

Replacement Valve Tops—Silicone Diaphragm

HPO-5134	2.3 Cv, 3 to 8 psi (21 to 55 kPa)
HPO-5135	2.3 Cv, 8 to 13 psi (55 to 90 kPa)
HPO-5136	2.3 Cv, 3 to 13 psi (21 to 90 kPa)
HPO-5138	2.3 Cv, 9 to 14 psi (62 to 96 kPa)
HPO-5131	All other Cv, 3 to 8 psi (21 to 55 kPa)
HPO-5132	All other Cv, 8 to 13 psi (55 to 90 kPa)
HPO-5133	All other Cv, 3 to 13 psi (21 to 90 kPa)
HPO-5137	All other Cv, 9 to 14 psi (62 to 96 kPa)

SEE ALSO: The [\(Pneumatic\) Actuator Accessories and Repair Parts](#) section and the [Compressed Air Accessories](#) section.

**VCZ-41/44 Series****2-Way/3-Way, NPT, Pneumatic Zone Control Valves (1/2 to 1")****Two-Way
VCZ-41
Series****Three-Way
VCZ-44
Series**

These pneumatic globe zone control valves are designed to regulate the flow of hot or chilled water to such applications as VAV terminal unit reheat coils, fan coil units, induction units, finned tube convectors, and cast iron radiators. The compact design of these units allows easy installation within small enclosures.

The rugged, precision pneumatic actuators have a glass-filled nylon housing and a neoprene diaphragm. Replacement actuators can be installed on the valve bodies without tools.

Options include 3–8 or 8–13 psi actuators as well as two-way or three-way valve bodies, with multiple sizes and Cvs.

Specifications**Valve Body**

Service	Hot or chilled water, up to 50% glycol
Connections	Female NPT
Seat Style	Metal to metal
Flow Characteristics	Linear
Leakage Rating	ANSI Class III (AB-A in 3-way)
Valve Body Rating	ANSI Class 125
Max. Inlet Pressure	125 psig (862 kPa)
Max. Close-Off	(See data sheet, AB-A in 3-way)
Close-Off Ratings	According to ANSI/FCI 70-2 (See data sheet, AB-A in 3-way)

Material

Body	Brass
Body Trim	Brass
Stem	Stainless steel ASTM A582 Type 303
Packing	Ethylene propylene O ring

Actuators**Material**

Housing	Glass-filled nylon
Diaphragm	Neoprene

Operating Range 3–8 or 8–13 psi

Max. Air Pressure 30 psi (207 kPa)

General

Mounting Location NEMA 1 (interior only)

Temperature Limits

Medium	34 to 230° F (1 to 110° C)
Ambient	40 to 180° F (4.4 to 82° C)
Shipping	–40 to 180° F (–40 to 82° C)

SEE ALSO: The *(Pneumatic) Actuator Accessories and Repair Parts* section and the *Compressed Air Accessories* section.

SEE ALSO: *Valve (Three-Way) Application Guide*, *Valve Sizing Guide*, and *Valve Effective Cv with Increased Pipe Size* in the *Reference* section.

SEE ALSO: VCB-41 series packaged in *KIT-1000 Series Pneumatic Kits* in the *Compressed Air Accessories* section.

SEE ALSO: The interactive *Valve Selection Tool* in the Products and Solutions section of the *KMC web site*.

Models

VCZ-4 X YYY MB Z

Actuator

D: 3–8 psi (MCP-6101)

E: 8–13 psi (MCP-6102)

Size/Cv

02A: 1/2"; 1.0 Cv

02B: 1/2"; 2.5 Cv

02C: 1/2"; 4.0 Cv

03A: 3/4"; 4.1 Cv

04A: 1"; 7.0 Cv

Control Type

1: Two-Way (Fail Open)

4: Three Way (Fail AB-A)

Accessories/Repair Parts

HPO-5114	Replacement actuator diaphragm
MCP-6101	"D" actuator, 3–8 psi
MCP-6102	"E" actuator, 8–13 psi
VFZ-4102AM	2-way, 1/2", 1.0 Cv valve body
VFZ-4102BM	2-way, 1/2", 2.5 Cv valve body
VFZ-4102CM	2-way, 1/2", 4.0 Cv valve body
VFZ-4103AM	2-way, 3/4", 4.1 Cv valve body
VFZ-4104AM	2-way, 1", 7.0 Cv valve body
VFZ-4402AM	3-way, 1/2", 1.0 Cv valve body
VFZ-4402BM	3-way, 1/2", 2.5 Cv valve body
VFZ-4402CM	3-way, 1/2", 4.0 Cv valve body
VFZ-4403AM	3-way, 3/4", 4.1 Cv valve body
VFZ-4404AM	3-way, 1", 7.0 Cv valve body

▲ CAUTION

Using mineral oil lubricants or other incompatible substances in system fluids may damage EPDM rubber seals in valves. Before using any lubricant or additive in a water or ethylene glycol base, consult the substance manufacturer for compatibility with EPDM (Ethylene Propylene Diene Monomer).



Reference

Electronic and Pneumatic Products

BIO-xxxx

Basic Device Type

C = Controller

H = Hardware (see below)*

I = Indicator

Input Variable

A = Ambient Air Contaminants

C = Control Air

E = Electrical

Output Variable

B = Ball (Valve)

C = Control Air

E = Electrical

120/180/320 in.-lbs. Torque Models (MEP-7200/7500/7800 Series)

Model	Minimum Torque (in.-lbs./Nm)	Control Signal	Power Supply	Feedback	Auxiliary Switch	Damper Shaft Diameter	Weight (lb./kg)
MEP-7x01	MEP-72xx: 120/13.5;	Tri-State, 24 VAC/VDC	24 VAC/VDC	No	Optional CME-7001/7002	3/8" to 1.05" Round or 5/16" to 5/8" Square	MEP-72xx: 5.0/2.3;
MEP-7x02		0-10 VDC or 4-20 mA		0-5 or 0-10 VDC			
MEP-7x03	MEP-75xx: 180/20	Tri-State, 24 VAC/VDC	24 VAC/VDC	No	Optional CME-7001/7002	3/8" to 1.05" Round or 5/16" to 5/8" Square	MEP-78xx: 5.4/2.5
MEP-7x51		0-10 VDC or 4-20 mA		0-5 or 0-10 VDC			
MEP-7x52	MEP-78xx: 320/36	Tri-State, 24 VAC/VDC	24 VAC/VDC	10K ohm pot.	Optional CME-7001/7002	3/8" to 1.05" Round or 5/16" to 5/8" Square	MEP-78xx: 5.4/2.5
MEP-7x53		0-10 VDC or 4-20 mA		0-5 or 0-10 VDC			

Green Building and Controls Glossary

HRO = Restrictors

HSO = Supplies (Tubing, Wire, Solder, Tape, Grease)

HTO = Tools, Gauges, Thermometers, Test Panels

VTD = Actuator parts



Abbreviations, Codes, and Definitions

Acronyms and Abbreviations

Common acronyms and abbreviations in this catalog include:

@ = at

° = degrees

Ω = ohms

μ s = microsecond

A = amperes

A/C = air conditioning

AAC = Advanced Application Controller

ABS = acrylonitrile butadiene styrene (plastic)

AC = alternating current

amp = amperes

avg. = average

AWG = American Wire Gauge

BACnet = Building Automation Control network

BTU = British Thermal Unit

C = Celsius

cfh = cubic feet per hour

cfm = cubic feet per minute

cm = centimeters

CO = carbon monoxide

CO₂ = carbon dioxide

CSA = Canadian Standards Association

CUL = (UL certification to CSA requirements)

Cv = valve flow coefficient

DA = direct acting

DC = direct current

DPDT = double pole double throw

DPST = double pole single throw

EP = electric to pneumatic

EPDM = ethylene propylene diene monomer (synthetic rubber)

ETL = Electrical Testing Laboratories

F = Fahrenheit

FLA = full load amperes

FPT = female pipe thread

FS = full scale

FSO = full scale output

ft-lbs. = foot pounds

fpm = feet per minute

g = grams

hp = horsepower

HVAC = heating ventilating and air conditioning

Hg = mercury

Hz = hertz

ID = inside diameter

in-lbs. = inch pounds

kbits = kilobits per second

kPa = kilopascals

kW = kilowatt

kWh = kilowatt-hour

LCD = liquid crystal display

LED = light emitting diode

LRA = locked rotor amperes

m = meters

mA = milliamperes

max. = maximum

min. = minimum

MEA = Materials and Equipment Acceptance

mL/s = milliliters per second

mm = millimeters

MPT = male pipe thread

NC = normally closed

NEMA = National Electrical Manufacturers Association

NO = normally open

NPT = National Pipe Tapered (Thread)

NPS = National Pipe Straight

N•m = Newton meters

OD = outside diameter

Pa = pascals

PE = pneumatic to electric (volts)

pF = picofarad

PI = pneumatic to current (amperes)

ppm = parts per million

psi = pounds per square inch

psid = pounds per square inch differential

psig = pounds per square inch gauge

RA = reverse acting

RH = relative humidity

rms = root mean square

RTU = Roof Top Unit

scfh = standard cubic feet per hour

scim = standard cubic inches per minute

SPDT = single pole double throw

SPST = single pole single throw

stat = thermostat

UL = Underwriters Laboratories

UUKL = (a UL category for smoke control devices)

V = volts

VA = volt-ampere

VAC = volts alternating current

VAV = variable air volume

VDC = volts direct current

W = watts

wc = water column

wg = water gauge



Definitions of Terms

For **definitions** of various terms in this catalog, refer to the pocket-sized Green Building and Controls Glossary (SB-046). The goal of this glossary is to provide a common ground of understanding of various terms relating to aspects of green buildings. It lists **three types of related terms**:

- General terms relating to much of the **green building industry**.
- Terms specifically relating to **indoor environmental quality** and **energy management**.
- Terms relating to **HVAC and building automation systems**.

It also contains a separate list of building controls acronyms and abbreviations. A hyperlinked online version can be downloaded from the Brochures section of KMC Controls web site, www.kmccontrols.com.



Product Date Code Location and Interpretation

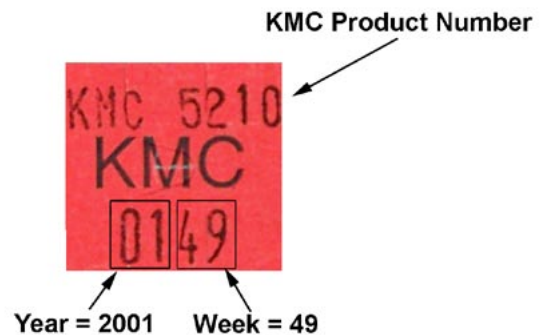
Every KMC product has a label with a coded manufacture date. Replacement parts for some products will depend on the manufacture date. The date code is part of the basic information customers may be asked to provide when contacting KMC's sales and technical support representatives. The label style, placement, and code format changed in 2003.

Products manufactured **BEFORE March of 2003** have bright red/orange (electronic and digital), white (pneumatic) or light blue (system powered) labels. The labels were placed on the outside housing of electronic and pneumatic products. Digital product labels were typically placed on the front or back of the circuit board.

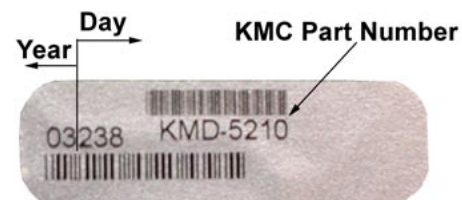
On the label, the KMC part number is located at the top with the manufacture date code at the bottom. The first two digits of the code are the last two digits of the year, the second two digits are the week. The upper label is from a KMD-5210 LAN Controller manufactured in the 49th week of 2001.

Products manufactured **AFTER March of 2003** have silver/gray labels located on the front or side of the unit housing.

On the label, the KMC part number is located in the middle, between the top and bottom bar codes. The manufacture date code is centered on the left side of the label. The first two digits of the code are the last two digits of the year and the last three digits are the day. The lower label is from a KMD-5210 LAN Controller manufactured on the 238th day of 2003 (August 26, 2003).



Label Before March 2003



Label After March 2003



KMC Model Number Code Meanings

Electronic and Pneumatic Products		
BIO-xxxx		
Basic Device Type	Input Variable	Output Variable
C = Controller	A = Ambient Air Contaminants	B = Ball (Valve)
H = Hardware (see below)*	C = Control Air	C = Control Air
I = Indicator	E = Electrical	E = Electrical
M = Motor (Actuator)	F = Force	G = Globe (Valve)
R = Relay	H = Humidity	I = Indication
S = Sensor	L = Light	P = Position
T = Transmitter	M = Movement (Position)	S = Static
V = Valve**	P = Pressure	T = Thermal
X = Converter	S = Static	V = Pressure Independent (Valve)
S = Selector	T = Temperature	

*Hardware
HAO = Air Accessories (Compressors, Dryers, Filters, Regulators)
HCO = Cabinets, Panels, Utility Boxes
HDO = Dials, Receiver Gauge Scales
HFO = Fittings
HLO = Linkage
HMO = Mounting
HPO = Parts (Replacements, Assemblies, Spares)
HRO = Restrictors
HSO = Supplies (Tubing, Wire, Solder, Tape, Grease)
HTO = Tools, Gauges, Thermometers, Test Panels
VTD = Actuator parts

*NOTE: For valves, see also the more detailed chart on the next three pages.

NOTE: This chart is for electronic and pneumatic products. KMC digital products have a different numbering system.

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).

SEE ALSO: The interactive [Actuator Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).



Reference

(New) Valve Numbering System (Details)

1	2	3	4	5	6	7 and 8	9	10	11	12
Basic Type	Input Variable	Output Variable	—	Connection	Type	Size	Cv	Seat & Misc.	Operator (Pneumatic, then Electric)	Operator Range (Pneumatic, then Electric)
V = Valve	C = Control Air	B = Ball		1 = Union	1 = 2-way, NO	02 = 1/2		B = Brass ball and trim	A = 3 sq. in. (MCP-020X)	A = w/ pilot positioner
	E = Electrical	F = Butterfly		4 = NPT	2 = 2-way, NC	03 = 3/4		C = 125# flange w/ bronze trim	B = 5 sq. in.	B = plastic actuator w/ positioner
	F = Force	G = Globe		5 = Flanged	3 = 2-way, neither NO nor NC	04 = 1		D = 125# flange w/ bronze trim; double seat	C = 5.5 sq. in. neoprene	C = metal actuator w/ positioner
		V = PIC-V		6 = Unit, Compression	4 = 3-way, diverting	05 = 1-1/4		E = 125# flange w/ S.S. trim	D = 5.5 sq. in. silicone	D = 3–8 psi
		Z = Zone		7 = Flared	5 = 3-way, mixing	06 = 1-1/2		F = 125# flange S.S. trim; double seat	E = 6.89 sq. in. (MCP-030x)	E = 8–13 psi
				8 = Sweat	6 = 3-way, mixing or diverting	08 = 2		G = 250# flange w/ bronze trim	F = 10.14 sq. in. (MCP-3631)	F = 5–10 psi
						10 = 2-1/2		J = 250# flange w/ bronze trim; double seat	G = 10.75 sq. in. (4" act.)	G = 3–13 psi
						12 = 3		K = 250# flange w/ S.S. trim	H = 11.4 sq. in. neoprene	H = 3–15 psi
						16 = 4		L = 250# flange w/ S.S. trim; double seat	J = 11.4 sq. in. silicone	J = 3–9 psi
						20 = 5		M = Metal seat	K = 21.5 sq. in. (dual 4" act.)	K = 9–15 psi
						24 = 6		R = Rubber seat	L = 24.5 sq. in. (6" act.)	P = 8–13 psi, plastic act.
						32 = 8		S = S.S. ball & trim	M = 43.4 sq. in. neoprene	M = 8–13 psi, metal act.
						40 = 10	Alpha per Size and Style — See Next Page		N = 43.4 sq. in. silicone	(Electric)
						48 = 12		3 = 5.8–60 psid	P = 49 sq. in. (dual 6" act.)	A = 10–0 VDC (zone)
								2 = 2.9–60 psid	Q = 50 sq. in.	B = 0–10 VDC (zone)
									R = 73.5 sq. in. (3, 6" act.)	C = 24 VDC (zone)
									S = 85 sq. in.	D = 120 VDC (zone)
									T = 98 sq. in. (4, 6" act.)	E = 220 VDC (zone)
									U = 115 sq. in.	F = Tri-state
									(Electric)	G = Tri-state w/ feed-back
									A = Electro-thermic (zone)	H = Tri-state w/ fail-safe
									B = Electric motor (zone)	J = Tri-state w/ fail-safe & feedback
									C = 40 in-lbs.	K = Proportional
									D = 50 in-lbs.	L = Proport. w/ fail-safe
									E = 80 in-lbs.	M = 24 VAC, NO spring return
									F = 120 in-lbs.	N = 24 VAC, NC spring return
									G = 180 in-lbs.	P = 115 VAC, NO spring return
									H = 320 in-lbs.	Q = 115 VAC, NC spring return
									J = 640 in lb (dual 320 in-lbs. actuators)	
									K = 960 in lb (three 320 in-lbs. actuators)	
									L = 1600 in-lbs.	
									M = 3500 in-lbs.	
									N = 6000 in-lbs.	





Valve Numbering System (Cv Details–Model Number Digit #9)

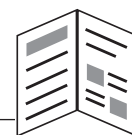
BALL Valve Cv									
1/2" 2-way	1/2" 3-way	3/4" 2-way	3/4" 3-way	1" 2-way	1" 3-way	1-1/4" 2-way	1-1/4" 3-way	1-1/2" 2-way	1-1/2" 3-way
B = 0.38		G = 2.4			H = 8.6		E = 12.7	D = 22.8	
	C = 0.6		J = 3.8	J = 9.0		F = 14.9			E = 23.5
D = 0.68		K = 4.3		M = 15.3			J = 34.1	G = 41.3	
	E = 1.0	L = 10.1			N = 22.3	K = 36.5			H = 61.1
F = 1.3			M = 11.0	Q = 28.4		L = 41.1		J = 73.9	
	G = 2.4	N = 14.7							
H = 2.6									
	J = 4.3								
K = 4.7									
	L = 8.0								
M = 11.7									

BALL Valve Cv (Continued)										
2" 2-way	2" 3-way	2-1/2" 2-way	2-1/2" 3-way	3"	4" 2-way	4" 3-way	5" 2-way	5" 3-way	6" 2-way	6" 3-way
	B = 38.2	C = 55		C = 82	A = 91	A = 91	A = 144	A = 144.0	A = 208	A = 208
D = 41.7		D = 72		D = 124	B = 118	B = 118	B = 185	B = 185.0	B = 268	B = 268
G = 71.1			E = 74.1		C = 152	C = 152	C = 240	C = 240	C = 346	C = 346
M = 108			F = 99.5		D = 197	D = 197	D = 309	D = 309	D = 441	D = 441
	N = 108.5	G = 101			E = 254	E = 254	E = 400	E = 400	E = 577	E = 577
					F = 327	F = 327			F = 650	F = 650



BUTTERFLY Valve Cv								
2"	2-1/2"	3"	4"	5"	6"	8"	10"	12"
A = 49	A = 78	A = 132	A = 257	A = 429	A = 632	A = 1125	A = 1759	A = 2533
B = 63	B = 84	B = 133	B = 270	B = 525	B = 820	B = 1320	B = 1900	B = 2850





Reference

GLOBE Cv							
1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2" 2-way	2-1/2" 3-way
A = 0.7	A = 2.9	A = 5.0	A = 18.5	A = 29.0	A = 46.4	A = 65.0	
B = 1.1	B = 4.7	B = 8.5					B = 68/75
C = 1.6	C = 4.9	C = 11.6				C = 70.0	
D = 1.8	D = 6.9					D = 75.0	
E = 2.0							
F = 2.3							
G = 2.6							
H = 2.9							
J = 4.6							

GLOBE Cv (Continued)						
3" 3-way	4" 2-way	4" 3-way	5" 2-way	5" 3-way	6" 2-way	6" 3-way
A = 85/95		A = 160/180		A = 195/220		A = 270/300
	B = 170		B = 260		B = 340	
	C = 190		C = 280		C = 350	
	D = 200				D = 360	



Pressure Independent (PIC-V) Valve Cv					
1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
A = 0.5	G = 5.5	K = 10	M = 20	N = 25	Q = 35
B = 1.0	H = 6.5	L = 15	N = 25	P = 30	R = 40
C = 1.5	J = 7.5	M = 20		Q = 35	S = 45
D = 2.5					T = 50
E = 3.5					U = 55
F = 4.5					
G = 5.5					



ZONE Valve Cv		
1/2"	3/4"	1"
A = 1.0	A = 4.1	A = 7.0
B = 2.5		
C = 4.0		

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).



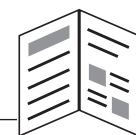
Actuator (MEP Series) Selection Guides

Model Quick Selection Chart (10 to 320 in-lbs. Torque)

Fail-safe	Control Signal	Min. Torque (in-lbs.)	Angular Rotation (degrees)	Timing for 90°	Feedback	Auxiliary Switch	Notes	Model (see also Model charts)
Yes*	2-position 2-wire	62	95	90 sec.	No	No	24 VAC/VDC, spring-return fail-safe	MEP-425100
		142					120 VAC, spring-return fail-safe	MEP-425300
							24 VAC/VDC, spring-return fail-safe	MEP-455100
							120 VAC, spring-return fail-safe	MEP-455300
	Tri-state (floating) 3-wire 24 V	50	95	45–60 sec.	No 10K ohm pot.	CME-100x	Optional aux. switch	MEP-5373 MEP-5374
		62	95	90 sec.	No No 1K ohm pot.	No 2 SPDT No	Spring-return fail-safe	MEP-425500 MEP-425502 MEP-425503
		120	94	75–90 sec.	No 10K ohm pot.	CME-700x	Optional aux. switch	MEP-7251 MEP-7253
		142	95	90 sec.	No	No	Spring-return fail-safe	MEP-455500
		180	94	90–115 sec.	No 10K ohm pot. No 10K ohm pot.	CME-700x	Optional aux. switch	MEP-7551 MEP-7553 MEP-7851 MEP-7853
		320						
		2–10 VDC	50	95	45–60 sec.	1–5 VDC	CME-100x	Optional aux. switch MEP-5372
		0–10 VDC	95	90 sec.	0–10 VDC 1K ohm pot.	No 2 SPDT No 2 SPDT	Spring return fail-safe	MEP-425600 MEP-425602 MEP-455600 MEP-455602
		0–10 VDC or 4–20 mA	120 180 320	94 75–90 sec. 90–115 sec.	0–5 or 0–10 VDC	CME-700x	Optional aux. switch	MEP-7252 MEP-7552 MEP-7852
No	Tri-state (floating) 3-wire 24 V	10	45 90	15 @ 45° 15 sec.	No	CME-100x	The faster rotation speed means lower torque than in other MEP-5xxx series	MEP-5223 MEP-5233
		35	up to 360	18°/min	CME-2001/2002	CME-100x	Various strokes/directions; optional aux. switch and feedback pot.	MEP-150x
		40	95	90 sec.	No 10K ohm pot. No	No No SPDT	MEP-4003 does not include green cover	MEP-4001/4003 MEP-4013 MEP-4021
		50		300 sec. 90 sec.	CME-2003	CME-100x	MEP-5xxx green cover not included	MEP-5061 MEP-5071
		80		90 sec.	No 10K ohm pot. No	No No SPDT		MEP-4801 MEP-4813 MEP-4821
		120	94	75–90 sec.	No 10K ohm pot.	CME-700x	Optional aux. switch	MEP-7201 MEP-7203
		180		90–115 sec.	No 10K ohm pot. No			MEP-7501 MEP-7503
		320			10K ohm pot.			MEP-7801 MEP-7803
		0–10 VDC	95	90 sec.	0–5 or 0–10 VDC	No SPDT No SPDT	Switch selectable feedback	MEP-4002 MEP-4022 MEP-4802 MEP-4822
		0–10 VDC or 4–20 mA	120 180 320	94 75–90 sec. 90–115 sec.	0–5 or 0–10 VDC	CME-700x	Optional aux. switch	MEP-7202 MEP-7502 MEP-7802

*Fail-safe is capacitor-driven with switch-selectable direction, except for indicated MEP-4xxxxx models that are spring return.

SEE ALSO: The interactive [Actuator Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).



Reference

NOTE: The MEP-5223/5233s have the highest rotation speed and lowest torque (10 in-lbs.) of any KMC actuators. See the 50 in-lbs. Torque Models (MEP-5000/5200/5300 Series) chart.



35 in-lbs. Torque Models (MEP-1500 Series)

Model	Minimum Torque (in-lbs./Nm)	Control Signal	Power Supply	Motor Timing	Fail-Safe	Feedback	Auxiliary Switch	Damper Shaft Diameter	Weight (lb./kg)
MEP-1501	35/4	Tri-State, 24 VAC	24 VAC	18° per Minute—various strokes (45/60/100/360°) and directions (CW/CCW)	No	Optional CME-2001/2002	Optional CME-100x	1/2" Round or 3/8" Round with shaft adapter	1.2/0.54
MEP-1502									
MEP-1503									
MEP-1504									
MEP-1505									
MEP-1506									
MEP-1507									



40/80 in-lbs. Torque Models (MEP-4000/4800 Series)

Model	Minimum Torque (in-lbs./Nm)	Control Signal	Power Supply	Motor Timing to 90°	Fail-Safe	Feedback	Auxiliary Switch	Damper Shaft Diameter	Weight (lb./kg)
MEP-4013	40/4.5	Tri-State, 24 VAC	24 VAC	90 seconds at 60 Hz	No	10K ohm	No	1/4" to 5/8" Round or 1/4" to 7/16" Square	1.1/0.5
MEP-4021		Tri-State, 24 VAC				No	SPDT		
MEP-4001		Tri-State, 24 VAC				No	No		
MEP-4003		Tri-State, 24 VAC				No	No		
MEP-4022		0–10 VDC				0–5, 0–10 VDC	SPDT		
MEP-4002		0–10 VDC				0–5, 0–10 VDC	No		
MEP-4813	80/9	Tri-State, 24 VAC				10K ohm	No		
MEP-4821		Tri-State, 24 VAC				No	SPDT		
MEP-4801		Tri-State, 24 VAC				No	No		
MEP-4822		0–10 VDC				0–5, 0–10 VDC	SPDT		
MEP-4802		0–10 VDC				0–5, 0–10 VDC	No		



50 in-lbs. Torque Models (MEP-5000/5200/5300 Series)



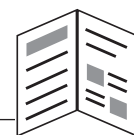
Model	Minimum Torque (in-lbs./Nm)	Control Signal	Power Supply	Motor Timing to 90° (@ 60 Hz)	Fail-Safe	Feedback	Auxiliary Switch	Damper Shaft Diameter	Weight (lb./kg)
MEP-5061	50/5.7	Tri-State, 24 VAC	24 VAC	5 minutes	No	Optional CME-2003	Optional CME-1002/1004	1/2" Round or 3/8" Round with shaft adapter	2.0/0.9
MEP-5071		Tri-State, 24 VAC		90 seconds		Optional CME-2003			2.0/0.9
MEP-5223	10/1.1*	Tri-State, 24 VAC		15 sec. @ 45°		No			2.0/0.9
MEP-5233		Tri-State, 24 VAC		15 seconds		No			2.0/0.9
MEP-5372	50/5.7	2-10 VDC, 4-20 mA	24 VAC/VDC	45 to 60 seconds	Yes (Capacitor)	1-5 VDC			2.5/1.1
MEP-5373		Tri-State, 24 VAC/VDC		45 to 60 seconds		No			2.5/1.1
MEP-5374		Tri-State, 24 VAC/VDC		45 to 60 seconds		10K ohm			2.5/1.1

*NOTE: The much faster rotation speed in the MEP-5223/5233s means less torque than in the rest of the MEP-5xxx series.

62 in-lbs. Torque Models (MEP-425 Series)



Model	Minimum Torque (in-lbs./Nm)	Control Signal	Power Supply	Motor Timing to 90°	Fail-Safe	Feedback	Auxiliary Switch	Damper Shaft Diameter	Weight (lb./kg)
MEP-425100	62/7	2 Position, 24 VAC/VDC	24 VAC/VDC	90 seconds	Yes (Spring Return)	No	No	1/4" to 3/4" Round or 1/4" to 1/2" Square	2.9/1.3
MEP-425300		2 Position, 120 VAC	120 VAC			No	No		
MEP-425500		Tri-State, 24 VAC/VDC	24 VAC/VDC			No	No		
MEP-425502		Tri-State, 24 VAC/VDC	24 VAC/VDC			No	2 SPDT		
MEP-425503		Tri-State, 24 VAC/VDC	24 VAC/VDC			10K ohm	No		
MEP-425600		0-10 VDC	24 VAC/VDC			0-10 VDC	No		
MEP-425602		0-10 VDC	24 VAC/VDC			0-10 VDC	2 SPDT		



142 in-lbs. Torque Models (MEP-455 Series)

Model	Minimum Torque (in-lbs./Nm)	Control Signal	Power Supply	Motor Timing to 90°	Fail-Safe	Feedback	Auxiliary Switch	Damper Shaft Diameter	Weight (lb./kg)
MEP-455100	142/16	2 Position, 24 VAC/VDC	24 VAC/VDC	90 seconds	Yes (Spring Return)	No	No	1/4" to 3/4" Round or 1/4" to 1/2" Square	4.85/2.2
MEP-455300		2 Position, 120 VAC	120 VAC			No	No		
MEP-455500		Tri-State, 24 VAC/VDC	24 VAC/VDC			1K ohm	No		
MEP-455600		0–10 VDC	24 VAC/VDC			0–10 VDC	No		
MEP-455602		0–10 VDC	24 VAC/VDC			0–10 VDC	2 SPDT		



120/180/320 in-lbs. Torque Models (MEP-7200/7500/7800 Series)

Model	Minimum Torque (in-lbs./Nm)	Control Signal	Power Supply	Motor Timing to 90°	Fail-Safe	Feedback	Auxiliary Switch	Damper Shaft Diameter	Weight (lb./kg)
MEP-7x01	MEP-72xx: 120/13.5; MEP-75xx: 180/20 MEP-78xx: 320/36	Tri-State, 24 VAC/VDC	24 VAC/VDC	MEP-72xx: 75 to 90 seconds, load dependent;	No	No	Optional CME-7001/7002	3/8" to 1.05" Round or 5/16" to 5/8" Square	MEP-72xx: 5.0/2.3;
MEP-7x02		0–10 VDC or 4–20 mA				0–5 or 0–10 VDC			
MEP-7x03		Tri-State, 24 VAC/VDC				10K ohm pot.			
MEP-7x51		Tri-State, 24 VAC/VDC		MEP-75xx/MEP-78xx: 90 to 115 seconds, load dependent	Yes (Capacitor)	No			MEP-75xx/MEP-78xx: 5.4/2.5
MEP-7x52		0–10 VDC or 4–20 mA				0–5 or 0–10 VDC			
MEP-7x53		Tri-State, 24 VAC/VDC				10K ohm pot.			

Actuator Sizing for Dampers Guide

Please refer to the damper torque ratings supplied by the damper manufacturer. If damper ratings are unavailable, this chart provides general guidelines for actuator selection.

Damper Type	Up to 1000 FPM	1000 to 2500 FPM	2500 to 3000 FPM
Opposed blades without seals	3 in-lb / sq.-ft	4.5 in-lb / sq.-ft	6 in-lb / sq.-ft
Parallel blades without seals	4 in-lb / sq.-ft	6 in-lb / sq.-ft	8 in-lb / sq.-ft
Opposed blades with seals	5 in-lb / sq.-ft	7.5 in-lb / sq.-ft	10 in-lb / sq.-ft
Parallel blades with seals	7 in-lb / sq.-ft	10.5 in-lb / sq.-ft	14 in-lb / sq.-ft



Valve (Three-Way) Application Guide

KMC Controls supplies a variety of different three-way valves. Some (globe valves) should be used only in mixing applications, some (globe valves) only in diverting applications, but some (ball and butterfly valves) may be used in either mixing or diverting applications. The mixing and diverting valves are dependent merely on how connections are made to them (see the illustration).

Diverting Only

VCP-34 and VCZ-44
VEP-34 and VEZ-44

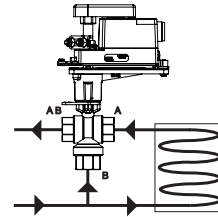
Mixing Only

VCP-63
VCP-43
VEG-45
VEP-43

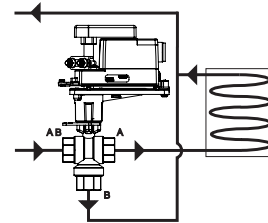
Mixing and Diverting

VCB-46
VCP-569
VEB-56
VEP-43 and VEB-46
VEP-569

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).



Ball Valve (VEB-46) Mixing Application



Ball Valve (VEB-46) Diverting Application

Valve Sizing Guide

The most important piece of information when selecting or sizing a valve is the Valve Flow Coefficient (C_v). The C_v is defined as the flow rate in gallons of 60° F water that will pass through a specific valve in one minute with a one psid pressure drop.

C_v for Liquids:

$$C_v = \frac{G \times Q}{\sqrt{D_p}}$$

C_v = Valve Flow Coefficient

D_p = Pressure drop through the valve (Inlet Pressure – Outlet Pressure)

G = Specific gravity of liquid (water = 1.0)

Q = Flow in U.S. gallons per minute

C_v for Steam:

$$C_v = \frac{Q}{3\sqrt{D_p \times P_a}}$$

C_v = Valve Flow Coefficient

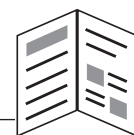
D_p = Pressure drop through the valve (Inlet Pressure – Outlet Pressure)

P_a = Valve outlet absolute pressure (psid), which is equal to the gauge pressure plus 14.7 psid.

Q = Flow in pounds per hour

NOTE: Maximum flow through a steam valve occurs when D_p = 53% of the inlet absolute pressure. A further increase in D_p will not increase the steam flow rate.

After calculating the C_v , choose a valve that has the closest C_v rating to your application. You may use a valve with a smaller C_v rating as long as the value is less than 10% smaller.



Valve Effective Cv with Increased Pipe Size

VEP-43/VEB-46 Series Effective Cv

			Connected Pipe Line Size								
Valve Size	Ends	Cv	0.5"	0.75"	1"	1.25"	1.5"	2"	2.5"	3"	4"
	1/2"	0.33	--	0.3	0.3						
	1/2"	0.59	--	0.6	0.6						
	1/2"	1.0	--	1.0	1.0						
	1/2"	2.4	--	2.3	2.3						
	1/2"	4.3	--	4.0	3.8	--					
	1/2"	8.0	--	7.9	5.7	--					
	3/4"	0.40	--	--	0.4	0.40	0.4				
	3/4"	0.66		--	0.66	0.66	0.66				
	3/4"	1.3		--	1.3	1.30	1.3				
	3/4"	2.4		--	2.4	2.39	2.38				
	3/4"	3.8		--	3.8	3.74	3.7				
	3/4"	12.6		--	11.7	10.86	10.4				
	1"	0.40		--	--	0.40	0.40	0.40	0.40	0.40	
	1"	0.65		--	--	0.65	0.65	0.65	0.65	0.65	
	1"	1.3		--	--	1.3	1.3	1.3	1.3	1.3	
	1"	2.3		--	--	2.3	2.3	2.3	2.3	2.3	
	1"	3.5			--	3.5	3.5	3.5	3.5	3.5	
	1"	4.5			--	4.5	4.5	4.5	4.4	4.4	
	1"	8.6			--	8.5	8.4	8.3	8.2	8.2	
	1"	10.0			--	9.9	9.7	9.6	9.5	9.4	
	1"	14.9			--	14.6	14.1	13.5	13.3	13.1	
	1"	22.3			--	21.2	19.9	18.4	17.7	17.3	
	1"	30.8			--	28.0	25.2	22.3	21.1	20.5	
	1-1/4"	4.1				--	4.0	4.0	4.0	4.0	4.0
	1-1/4"	7.7				--	7.7	7.6	7.6	7.6	7.6
	1-1/4"	8.7				--	8.6	8.6	8.5	8.5	8.5
	1-1/4"	12.7				--	12.6	12.4	12.3	12.2	12.2
	1-1/4"	19.4				--	19.2	18.5	18.1	17.9	17.6
	1-1/4"	34.1				--	32.9	29.9	28.3	27.4	26.5
1-1/2"	4.0					--	4.0	4.0	4.0	4.0	
1-1/2"	8.3					--	8.2	8.2	8.2	8.2	
1-1/2"	13.4					--	13.3	13.2	13.2	13.1	
1-1/2"	23.5					--	23.1	22.7	22.4	22.1	
1-1/2"	32.0					--	31.0	30.0	29.3	28.6	
1-1/2"	61.1					--	54.9	49.7	46.9	44.1	
2"	23.9						--	23.8	23.7	23.5	
2"	38.2						--	37.8	37.3	36.6	
2"	56.7						--	55.5	54.0	52.0	
2"	108.5						--	100.7	92.3	83.3	

SEE ALSO: The interactive [Valve Selection Tool](#) in the Products and Solutions section of the [KMC web site](#).



VEP-45/VEB-43 Series Effective Cv

			Connected Pipe Line Size									
Valve Size	Ends	Cv	0.5"	0.75"	1"	1.25"	1.5"	2"	2.5"	3"	4"	5"
	1/2"	0.38	--	0.38	0.38	0.38						
	1/2"	0.68	--	0.68	0.68	0.68						
	1/2"	1.3	--	1.29	1.28	1.28						
	1/2"	2.6	--	2.5	2.5	2.4						
	1/2"	4.7	--	4.3	4.1	3.9						
	1/2"	8.0	--	6.5	5.7	5.4						
	1/2"	11.7	--	7.9	6.7	6.2						
	3/4"	0.63		--	0.63	0.63	0.63					
	3/4"	1.2		--	1.2	1.2	1.2					
	3/4"	2.5		--	2.5	2.5	2.5					
	3/4"	4.3		--	4.3	4.2	4.2					
	3/4"	10.1		--	9.6	9.1	8.8					
	3/4"	14.7		--	7.1	6.5	6.2					
	3/4"	28.6		--	21.1	17.1	15.4					
	1"	4.4			--	4.4	4.4	4.4	4.4	4.3		
	1"	9			--	8.9	8.8	8.7	8.6	8.6		
	1"	15.3			--	14.9	14.4	13.8	13.5	13.4		
	1"	26.1			--	24.4	22.4	20.3	19.4	18.9		
	1"	28.4			--	26.2	23.8	21.4	20.3	19.7		
	1"	43.9			--	36.8	31.0	26.1	24.2	23.2		
	1"	54.2			--	42.3	34.1	27.9	25.6	24.5		
	1-1/4"	4.4				--	4.4	4.4	4.4	4.4	4.4	
	1-1/4"	8.3				--	8.3	8.2	8.2	8.2	8.1	
	1-1/4"	14.9				--	14.8	14.5	14.3	14.2	14.0	
	1-1/4"	36.5				--	35.0	31.5	29.6	28.6	27.6	
	1-1/4"	41.1				--	39.0	34.3	31.9	30.7	29.4	
	1-1/4"	102.3				--	79.1	53.3	45.5	42.0	39.0	
	1-1/2"	22.8					--	22.4	22.0	21.8	21.5	21.3
	1-1/2"	41.3					--	39.2	37.2	36.0	34.7	34.1
1-1/2"	73.9					--	63.7	55.9	52.0	48.3	46.7	
1-1/2"	171.7					--	101.2	76.6	67.2	59.8	56.8	
2"	41.7						--	41.2	40.6	39.7	39.2	
2"	57						--	55.8	54.2	52.2	51.2	
2"	71.1						--	68.8	65.9	62.4	60.6	
2"	100						--	93.8	86.9	79.2	75.7	
2"	108						--	100.3	92.0	83.0	79.0	
2"	210						--	165.9	134.6	110.5	101.5	
2"	266						--	189.7	146.4	116.7	106.3	
2-1/2"	45							--	43.6	42.5	42.0	
2-1/2"	55							--	52.5	50.6	49.7	
2-1/2"	72							--	66.6	63.0	61.2	
2-1/2"	101							--	87.5	79.7	76.2	
2-1/2"	162							--	119.0	101.3	94.3	
2-1/2"	202							--	132.4	109.3	100.6	
3"	49								--	45.8	45.1	
3"	63								--	56.7	55.4	
3"	82								--	69.3	67.0	
3"	124								--	89.7	84.7	
3"	145								--	96.8	90.6	

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Useful Formulas and Conversions

Air Flow: $V = 4004 \sqrt{P_v}$

Where:

V = Airflow (feet per minute)

$P_v = P_T - P_s$ (inches of water)

P_v = Velocity Pressure

P_s = Static Pressure

P_T = Total Pressure

Area of a Square = Horizontal x Vertical

Area of a Circle = $3.14 \times \text{radius}^2$

Equivalent Diameter of a Duct = $\sqrt{\frac{4 (\text{Horizontal} \times \text{Vertical})}{3.14}}$

NOTE: See also the Valve Sizing Guide section.

English	Metric	English	Metric
1 inch	= 2.54 centimeters	1 scim	= 0.273 mL/s
1 inch	= 25.4 millimeters	1 scfm	= 471.74 mL/s
1 foot	= 30.48 centimeters	1 scfh	= 7.86 mL/s
1 foot	= 304.8 millimeters	1 fpm	= 0.0508 m/s
1 sq. inch	= 645.16 sq. mm	1 Cv	= 0.859 kvs
1 inch wg	= 248.84 Pa	°F	= (1.8 x °C) + 32
1 BAR	= 100 kPa	1 in.-lb.	= 0.113 Nm
1 psig	= 6.89 kPa	1 lb	= 0.45359 kg
		1 ounce	= 0.02835 kg

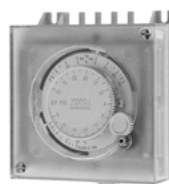
Replace	With
1 scfm	= 1728 scim
1 scfh	= 28.8 scim
1 cfm	= 472 mL/s
1 cfh	= 7.87 mL/s



Pneumatic and Electronic Cross-Reference

The KMC CCC-1002 receiver controller can replace these single/dual-input receiver/controllers:

- Honeywell RP908A and RP908B
- Johnson T-9000 and T-5801/5802
- Siemens 185 and 195 series
- Barber-Colman (TAC) RKS-1001/2001/3002/4002
- Robertshaw P341 and 2341



NOTE: External restrictor HFO-0022 might be required if replacing a receiver/controller using internal restrictors.

Pneumatic VAV Reset Volume Controllers Replacement Cross-Reference						
KMC Controls	Robertshaw/Invensys	Staefa/UPC	Titus	Honeywell	Johnson Controls	Barber-Colman/Invensys
CSC-2001	R77-21, R77-L21	VCV2100-201, -251 VCV2200-251	Titus I			
CSC-2002	R77-22, R77-L22					
CSC-2003	R77-23, R77-L23, R77-23DA					
CSC-2004	R77-24, R77-L24, R77-24RA					
CSC-2007	R77-25					
CSC-2008	R77-26					
CSC-2009	R77-27					
CSC-2010	R77-28					
CSC-3011 ("universal controller")	R77 and R78 series (all models)	VCV2500-101* VCV2500-201* VCV2500-301* VCV2500-401* VCV2100 (all models) VCV2200 (all models)				
CSC-3025 ("universal controller for Trane units")		VCV2500-101 VCV2500-201 VCV2500-301 VCV2500-401 (on Trane VAV units)			P-3800-1, P-3800-2 (on Trane VAV units)	

*On Trane VAV terminal units, use CSC-3025 instead.

**For Honeywell CP980 Velocitrol controllers, the existing inlet sensor must also be replaced with a KMC SSS-1000 sensor.

See the CSC-2000 and CSC-3000 series data sheets or section in this catalog for more information.

After replacing a controller, adjustment/calibration will be necessary — refer to the CSC-2000 or CSC-3000 series controller's installation and/or application guides available as downloads from the KMC web site.





Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
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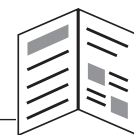
***NOTE: This cross-reference lists valve numbers (VEP/VCP series) undergoing transitions. For current equivalent valve type, part number, and information, see the appropriate Electronic or Pneumatic Valve section in this catalog, consult other KMC cross-reference resources, and/or contact Customer Service for assistance.**

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033-202		Siemens	PE Switch	CCE-1001	
033-204		Siemens	PE Switch	CCE-1001	
033-205		Siemens	PE Switch	CCE-1001	
033-206		Siemens	PE Switch	CCE-1001	
033-207		Siemens	PE Switch	CCE-1001	
033-208		Siemens	PE Switch	CCE-1002	
033-209		Siemens	PE Switch	CCE-1002	
033-210		Siemens	PE Switch	CCE-1002	
033-2103		Siemens	PE Switch	CCE-1001	
033-211		Siemens	PE Switch	CCE-1001	
033-212		Siemens	PE Switch	CCE-1001	
033-213		Siemens	PE Switch	CCE-1001	
033-214		Siemens	PE Switch	CCE-1001	
085-0024		Siemens	Pneu. Receiver-Controller	CCC-1002	

1xxxxx

1180-412		Siemens	Pneu. Room Thermostat	CTC-1643	
134-1106		Siemens	High Temp. Limit Thermostat	CTE-6001	
134-1400		Siemens	EP Switch	VEC-1022	
134-1402		Siemens	EP Switch	VEC-1025	
134-1404		Siemens	EP Switch	VEC-1022	
134-1405		Siemens	EP Switch	VEC-1023	
134-1406		Siemens	EP Switch	VEC-1026	
134-1407		Siemens	EP Switch	VEC-1026	
134-1452		Siemens	PE Switch	CCE-1001	
134-1454		Siemens	PE Switch	CCE-1002	
134-1455		Siemens	PE Switch	CCE-1001	
134-1456		Siemens	PE Switch	CCE-1001	
134-1459		Siemens	PE Switch	CCE-1002	
134-1460		Siemens	PE Switch	CCE-1001	
134-1510		Siemens	Low Temp. Limit Thermostat	CTE-3006	
134-1511		Siemens	Low Temp. Limit Thermostat	CTE-3007	
134-1514		Siemens	Low Temp. Limit Thermostat	CTE-3006	
134-1700		Siemens	High/Low Temp. Thermostat	CTC-4101	
141-0518		Siemens	Diff. Static Press. Air Flow Switch	CSE-1103	
141-0530		Siemens	High Temp. Limit Thermostat	CTE-6001	
141-0531		Siemens	High Temp. Limit Thermostat	CTE-6001	
141-0564		Siemens	Low Temp. Thermostat	CTE-3006	
141-0565		Siemens	Low Temp. Thermostat	CTE-3007	
141-0591		Siemens	Low Diff. Press. Transmitter	TSC-2005	
141-0592		Siemens	Low Diff. Press. Transmitter	TSC-2004	
141-0600		Siemens	Positioning/Gradual Switch	YMC-1001	
142-0262		Siemens	Receiver Gauge	ICI-3101	
142-0279		Siemens	Receiver Gauge	ICI-3101	
142-0284		Siemens	Receiver Gauge	ICI-3102	
142-0305		Siemens	Receiver Gauge	ICI-3102	
142-0327		Siemens	Receiver Gauge	ICI-3101	
142-0436		Siemens	Receiver Gauge	ICI-3101	
142-0437		Siemens	Receiver Gauge	ICI-3101	
142-0438		Siemens	Receiver Gauge	ICI-3101	

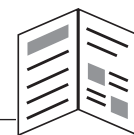


Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
142-0442		Siemens	Receiver Gauge	ICI-3102	
142-0443		Siemens	Receiver Gauge	ICI-3102	
142-0444		Siemens	Receiver Gauge	ICI-3102	
171A10204		Siemens	Electric Ball Valve	*VEP-45A2B926 / VEB-4302DBCF	
171A10205		Siemens	Electric Ball Valve	*VEP-45A3B926 / VEB-4302FBCF	
171A10206		Siemens	Electric Ball Valve	*VEP-45A4B926 / VEB-4302HBCF	
171A10207		Siemens	Electric Ball Valve	*VEP-45A5B926 / VEB-4302KBCF	
171A10208		Siemens	Electric Ball Valve	*VEP-45A6B926 / VEB-4302MBCF	
171A10209		Siemens	Electric Ball Valve	*VEP-45B4B926 / VEB-4303KBCF	
171A10211		Siemens	Electric Ball Valve	*VEP-45C1B926 / VEB-4304JBCF	
171A10213		Siemens	Electric Ball Valve	*VEP-45C3B926 / VEB-4304MBCF	
171A10215		Siemens	Electric Ball Valve	*VEP-45D1B926 / VEB-4305FBCF	
171A10216		Siemens	Electric Ball Valve	*VEP-45D2B926 / VEB-4305LBCF	
171B10218		Siemens	Electric Ball Valve	*VEP-45E1B926 / VEB-4306DBCF	
171B10219		Siemens	Electric Ball Valve	*VEP-45E2B926 / VEB-4306JBCF	
171B10220		Siemens	Electric Ball Valve	*VEP-45E3B926 / VEB-4306GBCF	
171B10222		Siemens	Electric Ball Valve	*VEP-45F1B926 / VEB-4308DBCF	
171B10223		Siemens	Electric Ball Valve	*VEP-45F2B926 / VEB-4308MBCF	
171C10204		Siemens	Electric Ball Valve	*VEP-45A2B915 / VEB-4302DBCK (0-10 VDC)	
171C10205		Siemens	Electric Ball Valve	*VEP-45A3B915 / VEB-4302FBCK (0-10 VDC)	
171C10206		Siemens	Electric Ball Valve	*VEP-45A3B915 / VEB-4302FBCK (0-10 VDC)	
171C10207		Siemens	Electric Ball Valve	*VEP-45A5B915 / VEB-4302KBCK (0-10 VDC)	
171C10208		Siemens	Electric Ball Valve	*VEP-45A6B915 / VEB-4302MBCK (0-10 VDC)	
171C10209		Siemens	Electric Ball Valve	*VEP-45B4B915 / VEB-4303KBCK (0-10 VDC)	
171C10211		Siemens	Electric Ball Valve	*VEP-45C1B915 / VEB-4304JBCK (0-10 VDC)	
171C10213		Siemens	Electric Ball Valve	*VEP-45C3B915 / VEB-4304MBCK (0-10 VDC)	
171C10215		Siemens	Electric Ball Valve	*VEP-45D1B915 / VEB-4305FBCK (0-10 VDC)	
171C10216		Siemens	Electric Ball Valve	*VEP-45D2B915 / VEB-4305LBCK (0-10 VDC)	
171D10218		Siemens	Electric Ball Valve	*VEP-45E1B915 / VEB-4306DBCK (0-10 VDC)	
171D10219		Siemens	Electric Ball Valve	*VEP-45E2B915 / VEB-4306JBCK (0-10 VDC)	
171D10222		Siemens	Electric Ball Valve	*VEP-45F1B915 / VEB-4308DBCK (0-10 VDC)	
171D10223		Siemens	Electric Ball Valve	*VEP-45F2B915 / VEB-4308MBCK (0-10 VDC)	
171F10204		Siemens	Electric Ball Valve	*VEP-45A2B906 / VEB-4302DBDH	
171F10205		Siemens	Electric Ball Valve	*VEP-45A3B906 / VEB-4302FBDH	
171F10206		Siemens	Electric Ball Valve	*VEP-45A4B906 / VEB-4302HBDH	
171F10207		Siemens	Electric Ball Valve	*VEP-45A5B906 / VEB-4302KBDH	
171F10208		Siemens	Electric Ball Valve	*VEP-45A6B906 / VEB-4302MBDH	
171F10209		Siemens	Electric Ball Valve	*VEP-45B4B906 / VEB-4303LBDH	
171F10211		Siemens	Electric Ball Valve	*VEP-45C1B906 / VEB-4304JBDH	
171F10213		Siemens	Electric Ball Valve	*VEP-45C3B906 / VEB-4304MBDH	
171F10215		Siemens	Electric Ball Valve	*VEP-45D1B906 / VEB-4305FBDH	
171F10216		Siemens	Electric Ball Valve	*VEP-45D2B906 / VEB-4305LBDH	
171F10218		Siemens	Electric Ball Valve	*VEP-45E1B906 / VEB-4306DBDH	
171F10222		Siemens	Electric Ball Valve	*VEP-45F1B906 / VEB-4308DBDH	
171F10223		Siemens	Electric Ball Valve	*VEP-45F2B906 / VEB-4308MBDH	
171G10204		Siemens	Electric Ball Valve	*VEP-45A2B895 / VEB-4302DBDL	
171G10205		Siemens	Electric Ball Valve	*VEP-45A3B895 / VEB-4302FBDL	
171G10206		Siemens	Electric Ball Valve	*VEP-45A4B895 / VEB-4302HBDL	
171G10207		Siemens	Electric Ball Valve	*VEP-45A5B895 / VEB-4302KBDL	
171G10208		Siemens	Electric Ball Valve	*VEP-45A6B895 / VEB-4302MBDL	
171G10209		Siemens	Electric Ball Valve	*VEP-45B4B895 / VEB-4303LBDL	
171G10213		Siemens	Electric Ball Valve	*VEP-45C3B895 / VEB-4304MBDL	
171G10215		Siemens	Electric Ball Valve	*VEP-45D1B895 / VEB-4305FBDL	
171G10216		Siemens	Electric Ball Valve	*VEP-45D2B895 / VEB-4305LBDL	
171G10218		Siemens	Electric Ball Valve	*VEP-45E1B895 / VEB-4306DBDL	
171G10219		Siemens	Electric Ball Valve	*VEP-45E2B895 / VEB-4306JBDL	
171G10222		Siemens	Electric Ball Valve	*VEP-45F1B895 / VEB-4308DBDL	
171G10223		Siemens	Electric Ball Valve	*VEP-45F2B895 / VEB-4308MBDL	
180-400		Siemens	Pneumatic Room Thermostat	CTC-1621	
180-401		Siemens	Pneumatic Room Thermostat	CTC-1621	
180-402		Siemens	Pneumatic Room Thermostat	CTC-1621	
180-403		Siemens	Pneumatic Room Thermostat	CTC-1621	
180-410		Siemens	Pneumatic Room Thermostat	CTC-1643	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
180-411		Siemens	Pneumatic Room Thermostat	CTC-1643	
180-413		Siemens	Pneumatic Room Thermostat	CTC-1643	
180-414		Siemens	Pneumatic Room Thermostat	CTC-1653	
180-416		Siemens	Pneumatic Room Thermostat	CTC-1653	
180-417		Siemens	Pneumatic Room Thermostat	CTC-1653	
180-420		Siemens	Pneumatic Room Thermostat	CTC-1645	
180-422		Siemens	Pneumatic Room Thermostat	CTC-1645	
180-423		Siemens	Pneumatic Room Thermostat	CTC-1645	
180-430		Siemens	Pneumatic Room Thermostat	CTC-1622	
180-431		Siemens	Pneumatic Room Thermostat	CTC-1622	
180-432		Siemens	Pneumatic Room Thermostat	CTC-1622	
180-433		Siemens	Pneumatic Room Thermostat	CTC-1622	
180-884		Siemens	Pneumatic Room Thermostat	CTC-1621	
180-885		Siemens	Pneumatic Room Thermostat	CTC-1622	
180-887		Siemens	Pneumatic Room Thermostat	CTC-1643	
180-900		Siemens	Pneumatic Room Thermostat	CTC-1621	
180-901		Siemens	Pneumatic Room Thermostat	CTC-1621	
180-902		Siemens	Pneumatic Room Thermostat	CTC-1621	
180-903		Siemens	Pneumatic Room Thermostat	CTC-1621	
180-910		Siemens	Pneumatic Room Thermostat	CTC-1643	
180-911		Siemens	Pneumatic Room Thermostat	CTC-1643	
180-912		Siemens	Pneumatic Room Thermostat	CTC-1643	
180-913		Siemens	Pneumatic Room Thermostat	CTC-1643	
180-914		Siemens	Pneumatic Room Thermostat	CTC-1653	
180-915		Siemens	Pneumatic Room Thermostat	CTC-1653	
180-916		Siemens	Pneumatic Room Thermostat	CTC-1653	
180-917		Siemens	Pneumatic Room Thermostat	CTC-1653	
180-918		Siemens	Pneumatic Room Thermostat	CTC-1653	
180-920		Siemens	Pneumatic Room Thermostat	CTC-1645	
180-921		Siemens	Pneumatic Room Thermostat	CTC-1645	
180-922		Siemens	Pneumatic Room Thermostat	CTC-1645	
180-923		Siemens	Pneumatic Room Thermostat	CTC-1645	
180-924		Siemens	Pneumatic Room Thermostat	CTC-1611	
180-925		Siemens	Pneumatic Room Thermostat	CTC-1611	
180-926		Siemens	Pneumatic Room Thermostat	CTC-1611	
180-927		Siemens	Pneumatic Room Thermostat	CTC-1611	
180-932		Siemens	Pneumatic Room Thermostat	CTC-1622	
180-933		Siemens	Pneumatic Room Thermostat	CTC-1622	
180-937		Siemens	Pneumatic Room Thermostat	CTC-1644	
180-942		Siemens	Pneumatic Room Thermostat	CTC-1612	
182-421		Siemens	Pneumatic Room Thermostat	CTC-1645	
182-500		Siemens	Pneumatic Room Thermostat	CTC-1643	
182-501		Siemens	Pneumatic Room Thermostat	CTC-1643	
182-502		Siemens	Pneumatic Room Thermostat	CTC-1643	
182-503		Siemens	Pneumatic Room Thermostat	CTC-1644	
182-504		Siemens	Pneumatic Room Thermostat	CTC-1653	
182-505		Siemens	Pneumatic Room Thermostat	CTC-1653	
182-506		Siemens	Pneumatic Room Thermostat	CTC-1645	
182-507		Siemens	Pneumatic Room Thermostat	CTC-1645	
182-508		Siemens	Pneumatic Room Thermostat	CTC-1643	
182-509		Siemens	Pneumatic Room Thermostat	CTC-1643	
182-625		Siemens	Pneumatic Room Thermostat	CTC-1644-25	
182-626		Siemens	Pneumatic Room Thermostat	CTC-1644-25	
182-627		Siemens	Pneumatic Room Thermostat	CTC-1643	
182-628		Siemens	Pneumatic Room Thermostat	CTC-1644	
182-630		Siemens	Pneumatic Room Thermostat	CTC-1643	
182-633		Siemens	Pneumatic Room Thermostat	CTC-1645	
182-634		Siemens	Pneumatic Room Thermostat	CTC-1645	
182-635		Siemens	Pneumatic Room Thermostat	CTC-1643	
182-635		Siemens	Pneumatic Room Thermostat	CTC-1643	
182-636		Siemens	Pneumatic Room Thermostat	CTC-1644-25	
182-638		Siemens	Pneumatic Room Thermostat	CTC-1644-25	
182-673		Siemens	Pneumatic Room Thermostat	CTC-1004-10	
182-674		Siemens	Pneumatic Room Thermostat	CTC-1005-10	
182-675		Siemens	Pneumatic Room Thermostat	CTC-1006-10	



Reference

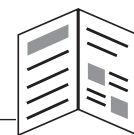
Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
182-676		Siemens	Pneumatic Room Thermostat	CTC-1003-10	
182-677		Siemens	Pneumatic Room Thermostat	CTC-1004-11	
182-678		Siemens	Pneumatic Room Thermostat	CTC-1005-11	
182-679		Siemens	Pneumatic Room Thermostat	CTC-1006-11	
182-680		Siemens	Pneumatic Room Thermostat	CTC-1003-11	
182-694		Siemens	Pneumatic Room Thermostat	CTC-1646-25	
184-0002		Siemens	Temperature Transmitter	TTC-1505	
184-0003		Siemens	Temperature Transmitter	TTC-1006	
184-0005		Siemens	Temperature Transmitter	TTC-1507	
184-0006		Siemens	Temperature Transmitter	TTC-1507	
184-0028		Siemens	Temperature Transmitter	TTC-1003	
184-0048		Siemens	Temperature Transmitter	TTC-2003	
184-0121		Siemens	Temperature Transmitter	TTC-1006	
184-0127		Siemens	Temperature Transmitter	TTC-3001	
184-0340		Siemens	Temperature Transmitter	TTC-3001	
185-0001		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0002		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0003		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0004		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0005		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0006		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0007		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0008		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0009		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0010		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0011		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0012		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0013		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0014		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0015		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0016		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0017		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0018		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0023		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0025		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0031		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0032		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0033		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0034		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0035		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0036		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0037		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0038		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0067		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0068		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0069		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0070		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0071		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0072		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0073		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0074		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0075		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0076		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0093		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0123		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0124		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0125		Siemens	Pneumatic Receiver-Controller	CCC-1002	
185-0126		Siemens	Pneumatic Receiver-Controller	CCC-1002	
188-0001		Siemens	Unit Mount Thermostat	CTC-4001	
188-0002		Siemens	Unit Mount Thermostat	CTC-4001	
188-0004		Siemens	Unit Mount Thermostat	CTC-4001	
188-0005		Siemens	Unit Mount Thermostat	CTC-4001	
188-0020		Siemens	Unit Mount Thermostat	CTC-4001	
188-0022		Siemens	Unit Mount Themostat	CTC-4001	
188-0023		Siemens	Unit Mount Themostat	CTC-4001	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
188-0025		Siemens	Unit Mount Thermostat	CTC-4001	
188-0026		Siemens	Unit Mount Thermostat	CTC-4001	
188-0027		Siemens	Unit Mount Thermostat	CTC-4001	
188-0030		Siemens	Unit Mount Thermostat	CTC-4001	
188-0031		Siemens	Unit Mount Thermostat	CTC-4001	
192-200		Siemens	Pneumatic Room Thermostat	CTC-1611	
192-201		Siemens	Pneumatic Room Thermostat	CTC-1612	
192-202		Siemens	Pneumatic Room Thermostat	CTC-1621	
192-203		Siemens	Pneumatic Room Thermostat	CTC-1622	
192-204		Siemens	Pneumatic Room Thermostat	CTC-1643	
192-205		Siemens	Pneumatic Room Thermostat	CTC-1644	
192-206		Siemens	Pneumatic Room Thermostat	CTC-1653	
192-207		Siemens	Pneumatic Room Thermostat	CTC-1643	
192-208		Siemens	Pneumatic Room Thermostat	CTC-1645	
192-209		Siemens	Pneumatic Room Thermostat	CTC-1646-25	
192-210		Siemens	Pneumatic Room Thermostat	CTC-1644-25	
192-220		Siemens	Pneumatic Room Thermostat	CTC-1611	
192-221		Siemens	Pneumatic Room Thermostat	CTC-1612	
192-222		Siemens	Pneumatic Room Thermostat	CTC-1621	
192-223		Siemens	Pneumatic Room Thermostat	CTC-1622	
192-226		Siemens	Pneumatic Room Thermostat	CTC-1653	
192-227		Siemens	Pneumatic Room Thermostat	CTC-1643	
192-228		Siemens	Pneumatic Room Thermostat	CTC-1645	
192-229		Siemens	Pneumatic Room Thermostat	CTC-1646-25	
192-230		Siemens	Pneumatic Room Thermostat	CTC-1644-25	
192-840		Siemens	Pneumatic Room Thermostat	CTC-1621-103	
192-841		Siemens	Pneumatic Room Thermostat	CTC-1622-103	
193-211		Siemens	Pneumatic Room Thermostat	CTC-1004-10	
193-212		Siemens	Pneumatic Room Thermostat	CTC-1006-10	
193-213		Siemens	Pneumatic Room Thermostat	CTC-1003-10	
193-214		Siemens	Pneumatic Room Thermostat	CTC-1005-10	
193-215		Siemens	Pneumatic Room Thermostat	CTC-1504-10	
193-216		Siemens	Pneumatic Room Thermostat	CTC-1506-10	
193-218		Siemens	Pneumatic Room Thermostat	CTC-1505-10	
193-231		Siemens	Pneumatic Room Thermostat	CTC-1004-11	
193-232		Siemens	Pneumatic Room Thermostat	CTC-1006-11	
193-233		Siemens	Pneumatic Room Thermostat	CTC-1003-11	
193-234		Siemens	Pneumatic Room Thermostat	CTC-1005-11	
193-235		Siemens	Pneumatic Room Thermostat	CTC-1504-11	
193-236		Siemens	Pneumatic Room Thermostat	CTC-1506-11	
193-238		Siemens	Pneumatic Room Thermostat	CTC-1505-11	
194-2042		Siemens	Pneumatic Room Thermostat	CTC-1643-23	
194-2043		Siemens	Pneumatic Room Thermostat	CTC-1643	
194-2052		Siemens	Pneumatic Room Thermostat	CTC-1643-23	
194-2053		Siemens	Pneumatic Room Thermostat	CTC-1644	
195-0003		Siemens	Pneumatic Receiver-Controller	CCC-1002	
195-0011		Siemens	Pneumatic Receiver-Controller	CCC-1002	
195-1000		Siemens	Pneumatic Receiver-Controller	CCC-1002	
195-104		Siemens	Pressure Reducing Valve	HAO-1001	
195-2000		Siemens	Pneumatic Receiver-Controller	CCC-1002	

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201-1000	Siemens	Pressure Reducing Valve	HAO-1021
201-1001	Siemens	Pressure Reducing Valve	HAO-1021
20-880	Invensys	Pressure Reducing Valve	HAO-1021
20-907	Invensys	Relief Valve	HAO-1070
21-104	Invensys	6x6 Actuator Diaphragm	VTD-9426
21-111	Invensys	Ball Joint	VTD-0801
21-125	Invensys	Clevis Pin	VTD-1100
21-197	Invensys	Crankarm	VTD-1403
21-198	Invensys	Crankarm	VTD-1404
21-602	Invensys	Clevis	VTD-1007
21-603	Invensys	Cotter Pin	VTD-1205

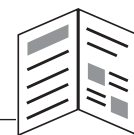


Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
21-806		Invensys	Crankarm	VTD-1415	
21-807		Invensys	Ball Joint	VTD-0804	
21-808		Invensys	Pushrod	VTD-1630	
21-813		Invensys	Crankarm	VTD-1414	
21-814		Invensys	Ball Joint	VTD-0803	
21-817		Invensys	3x3 Feedback Spring; 5 #	VTD-2250	
21-818		Invensys	3x3 Feedback Spring; 10 #	VTD-2260	
21-819		Invensys	4x4 Feedback Spring; 5#	VTD-2251	
21-820		Invensys	4x4 Feedback Spring; 10#	VTD-2261	
21-822		Invensys	Pushrod	VTD-1611	
21-827		Invensys	2x2 Mounting Bracket	VTD-0903	
21-829		Invensys	3x3 Or 4x4 Mounting Bracket	VTD-0902	
21-838		Invensys	6x6 Feedback Spring; 5#	VTD-2252	
21-839		Invensys	6x6 Feedback Spring; 10#	VTD-2262	
21-840		Invensys	2x2 Actuator Diaphragm	VTD-9422	
21-841		Invensys	3x3 Actuator Diaphragm	VTD-9423	
21-842		Invensys	4x4 Actuator Diaphragm	VTD-9424	
21-975		Invensys	2x2 Replacement Spring; 3-12#	VTD-4202	
21-976		Invensys	2x2 Replacement Spring; 5-10#	VTD-4203	
21-977		Invensys	2x2 Replacement Spring; 8-13#	VTD-4205	
21-978		Invensys	2x2 Replacement Spring; 10-15#	VTD-4206	
21-979		Invensys	2x2 Replacement Spring; 4-8#	VTD-4208	
21-980		Invensys	3x3 Replacement Spring; 3-12#	VTD-4302	
21-981		Invensys	3x3 Replacement Spring; 5-10#	VTD-4303	
21-982		Invensys	3x3 Replacement Spring; 8-13#	VTD-4305	
21-983		Invensys	3x3 Replacement Spring; 10-15#	VTD-4306	
21-984		Invensys	3x3 Replacement Spring; 4-8#	VTD-4308	
21-985		Invensys	4x4 Replacement Spring; 3-12#	VTD-4402	
21-986		Invensys	4x4 Replacement Spring; 5-10#	VTD-4403	
21-987		Invensys	4x4 Replacement Spring; 8-13#	VTD-4405	
21-988		Invensys	4x4 Replacement Spring; 10-15#	VTD-4406	
21-989		Invensys	4x4 Replacement Spring; 4-8#	VTD-4408	
2211-012		Invensys	Pneumatic Room Thermostat	CTC-1611	
2211-013		Invensys	Pneumatic Room Thermostat	CTC-1612	
2211-411		Invensys	Pneumatic Room Thermostat	CTC-1611	
2211-412		Invensys	Pneumatic Room Thermostat	CTC-1612	
2211-512		Invensys	Pneumatic Room Thermostat	CTC-1611	
2211-513		Invensys	Pneumatic Room Thermostat	CTC-1612	
2212-012		Invensys	Pneumatic Room Thermostat	CTC-1621	
2212-118		Invensys	Pneumatic Room Thermostat	CTC-1621	
2212-119		Invensys	Pneumatic Room Thermostat	CTC-1622	
2212-128		Invensys	Pneumatic Room Thermostat	CTC-1621	
2212-129		Invensys	Pneumatic Room Thermostat	CTC-1622	
2212-301		Invensys	Pneumatic Room Thermostat	CTC-1621	
2212-302		Invensys	Pneumatic Room Thermostat	CTC-1621	
2212-318		Invensys	Pneumatic Room Thermostat	CTC-1504-10	
2212-418		Invensys	Pneumatic Room Thermostat	CTC-1621	
2212-518		Invensys	Pneumatic Room Thermostat	CTC-1621	
2214-112		Invensys	Pneumatic Room Thermostat	CTC-1611	
2214-121		Invensys	Pneumatic Room Thermostat	CTC-1643	
2214-122		Invensys	Pneumatic Room Thermostat	CTC-1644	
2214-131		Invensys	Pneumatic Room Thermostat	CTC-1643	
2214-132		Invensys	Pneumatic Room Thermostat	CTC-1644	
2214-521		Invensys	Pneumatic Room Thermostat	CTC-1643	
2214-522		Invensys	Pneumatic Room Thermostat	CTC-1644	
2216-136		Invensys	Pneumatic Room Thermostat	CTC-1653	
2216-526		Invensys	Pneumatic Room Thermostat	CTC-1653	
2218-132		Invensys	Pneumatic Room Thermostat	CTC-1645	
2218-133		Invensys	Pneumatic Room Thermostat	CTC-1646-25	
2218-134		Invensys	Pneumatic Room Thermostat	CTC-1645	
2218-142		Invensys	Pneumatic Room Thermostat	CTC-1645	
2218-301		Invensys	Pneumatic Room Thermostat	CTC-1645	
2218-532		Invensys	Pneumatic Room Thermostat	CTC-1645	
2218-532		Invensys	Pneumatic Room Thermostat	CTC-1645	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
2252-151		Invensys	Temperature Transmitter	TTC-1507	
2252-250		Invensys	Temperature Transmitter	TTC-1003	
2282-410		Invensys	High Temp Limit Thermostat	CTE-6001	
2302-051		Invensys	Diff Pressure Transmitter	TPC-1002	
2323-500		Invensys	Low Diff. Pressure Transmitter	TSC-2004	
2323-503		Invensys	Low Diff. Pressure Transmitter	TSC-2005	
2341-001		Invensys	Pneumatic Receiver-Controller	CCC-1002	
2341-501		Invensys	Pneumatic Receiver-Controller	CCC-1002	
2341-502		Invensys	Pneumatic Receiver-Controller	CCC-1002	
2353-502		Invensys	Switching Relay	RCC-1109	
2354-501		Invensys	Switching Relay	RCC-1109	
2354-501		Invensys	Switching Relay	RCC-1109	
2360-501		Invensys	Reverse-Acting Relay	RCC-1504	
2364-202		Invensys	PE Switch	CCE-1001	
2364-211		Invensys	PE Switch	CCE-1001	
2368-301		Invensys	EP Switch	VEC-1021	
2368-302		Invensys	EP Switch	VEC-1022	
2368-303		Invensys	EP Switch	VEC-1026	
2368-304		Invensys	EP Switch	VEC-1023	
2368-306		Invensys	EP Switch	VEC-1027	
2368-401		Invensys	EP Switch	VEC-1021	
2368-402		Invensys	EP Switch	VEC-1022	
2368-403		Invensys	EP Switch	VEC-1026	
2368-404		Invensys	EP Switch	VEC-1023	
2368-406		Invensys	EP Switch	VEC-1028	
2372-351		Invensys	Low Pressure Selector	RCC-1106	
2372-352		Invensys	High Pressure Selector	RCC-1108	
2372-501		Invensys	Low Pressure Selector	RCC-1106	
2372-502		Invensys	High Pressure Selector	RCC-1108	
2373-501		Invensys	High/Low Signal Selector Relay	RCC-1111	
2374-410		Invensys	Diff. Static Press. Air Flow Switch	CSE-1103	
2390-501		Invensys	Positioning/Gradual Switch	YMC-1001	
2393-504		Invensys	Selector/Diverting Switch	YMC-3001	
243-0001		Siemens	Switching Relay	RCC-1109	
243-0015		Siemens	High/Low Signal Selector Relay	RCC-1111	
243-0018		Siemens	High Pressure Selector	RCC-1108	
243-0019		Siemens	High/Low Signal Selector Relay	RCC-1111	
243-0020		Siemens	Low Pressure Selector	RCC-1106	
243-0024		Siemens	Reverse-Acting Relay	RCC-1504	
2472-010		Invensys	Pneumatic Damper Actuator	MCP-1020-2308	
2472-020		Invensys	Pneumatic Damper Actuator	MCP-1020-8308	
2472-030		Invensys	Pneumatic Damper Actuator	MCP-1020-3308	
2472-040		Invensys	Pneumatic Damper Actuator	MCP-1020-5308	
2472-050		Invensys	Pneumatic Damper Actuator	MCP-1020-6308	
2472-110		Invensys	Pneumatic Damper Actuator	MCP-1020-2311	
2472-120		Invensys	Pneumatic Damper Actuator	MCP-1020-8311	
2472-130		Invensys	Pneumatic Damper Actuator	MCP-1020-3311	
2472-140		Invensys	Pneumatic Damper Actuator	MCP-1020-5311	
2472-150		Invensys	Pneumatic Damper Actuator	MCP-1020-6311	
2473-010		Invensys	Pneumatic Damper Actuator	MCP-1030-2108	
2473-020		Invensys	Pneumatic Damper Actuator	MCP-1030-8108	
2473-030		Invensys	Pneumatic Damper Actuator	MCP-1030-3108	
2473-040		Invensys	Pneumatic Damper Actuator	MCP-1030-5108	
2473-050		Invensys	Pneumatic Damper Actuator	MCP-1030-6108	
2473-060		Invensys	Pneumatic Damper Actuator	MCP-1030-1108	
2473-110		Invensys	Pneumatic Damper Actuator	MCP-1030-2111	
2473-120		Invensys	Pneumatic Damper Actuator	MCP-1030-8111	
2473-130		Invensys	Pneumatic Damper Actuator	MCP-1030-3111	
2473-140		Invensys	Pneumatic Damper Actuator	MCP-1030-5111	
2473-150		Invensys	Pneumatic Damper Actuator	MCP-1030-6111	
2473-160		Invensys	Pneumatic Damper Actuator	MCP-1030-1520	
2473-210		Invensys	Pneumatic Damper Actuator	MCP-1130-2520	
2473-220		Invensys	Pneumatic Damper Actuator	MCP-1130-8520	

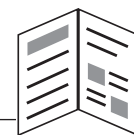


Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
2473-230		Invensys	Pneumatic Damper Actuator	MCP-1130-3520	
2473-240		Invensys	Pneumatic Damper Actuator	MCP-1130-5520	
2473-250		Invensys	Pneumatic Damper Actuator	MCP-1130-6520	
2473-260		Invensys	Pneumatic Damper Actuator	MCP-1130-1520	
2474-010		Invensys	Pneumatic Damper Actuator	MCP-1040-2208	
2474-020		Invensys	Pneumatic Damper Actuator	MCP-1040-8208	
2474-030		Invensys	Pneumatic Damper Actuator	MCP-1040-3208	
2474-040		Invensys	Pneumatic Damper Actuator	MCP-1040-5208	
2474-050		Invensys	Pneumatic Damper Actuator	MCP-1040-6208	
2474-060		Invensys	Pneumatic Damper Actuator	MCP-1040-1208	
2474-110		Invensys	Pneumatic Damper Actuator	MCP-1040-2211	
2474-120		Invensys	Pneumatic Damper Actuator	MCP-1040-8211	
2474-130		Invensys	Pneumatic Damper Actuator	MCP-1040-3211	
2474-140		Invensys	Pneumatic Damper Actuator	MCP-1040-5211	
2474-150		Invensys	Pneumatic Damper Actuator	MCP-1040-6211	
2474-160		Invensys	Pneumatic Damper Actuator	MCP-1040-1211	
2474-210		Invensys	Pneumatic Damper Actuator	MCP-1140-2520	
2474-220		Invensys	Pneumatic Damper Actuator	MCP-1140-8520	
2474-230		Invensys	Pneumatic Damper Actuator	MCP-1140-3520	
2474-240		Invensys	Pneumatic Damper Actuator	MCP-1140-5520	
2474-250		Invensys	Pneumatic Damper Actuator	MCP-1140-6520	
2474-260		Invensys	Pneumatic Damper Actuator	MCP-1140-1520	
2492-020		Invensys	Pneumatic Damper Actuator	MCP-8031-8095	
2492-030		Invensys	Pneumatic Damper Actuator	MCP-8031-3095	
2492-040		Invensys	Pneumatic Damper Actuator	MCP-8031-5095	
2492-120		Invensys	Pneumatic Damper Actuator	MCP-8031-8111	
2492-130		Invensys	Pneumatic Damper Actuator	MCP-8031-3111	
2492-140		Invensys	Pneumatic Damper Actuator	MCP-8031-5111	
251-0001		Siemens	PE Switch	CCE-1001	
2510-002		Invensys	Pneumatic Valve	*VCP-42350261	
251-0002		Siemens	PE Switch	CCE-1001	
2510-003		Invensys	Pneumatic Valve	*VCP-42350262	
251-0003		Siemens	PE Switch	CCE-1001	
2510-004		Invensys	Pneumatic Valve	*VCP-42350260	
251-0004		Siemens	PE Switch	CCE-1001	
2510-006		Invensys	Pneumatic Valve	*VCP-41350261	
2510-007		Invensys	Pneumatic Valve	*VCP-41350262	
2510-008		Invensys	Pneumatic Valve	*VCP-41350260	
251-0008		Siemens	PE Switch	CCE-1002	
2510-010		Invensys	Pneumatic Valve	*VCP-42350261	
2510-011		Invensys	Pneumatic Valve	*VCP-42350262	
2510-012		Invensys	Pneumatic Valve	*VCP-42350260	
2510-014		Invensys	Pneumatic Valve	*VCP-41350261	
2510-015		Invensys	Pneumatic Valve	*VCP-41350262	
2510-016		Invensys	Pneumatic Valve	*VCP-41350260	
2510-018		Invensys	Pneumatic Valve	*VCP-42360261	
2510-019		Invensys	Pneumatic Valve	*VCP-42360262	
2510-020		Invensys	Pneumatic Valve	*VCP-42360260	
2510-022		Invensys	Pneumatic Valve	*VCP-41360261	
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2510-024		Invensys	Pneumatic Valve	*VCP-41360260	
2510-026		Invensys	Pneumatic Valve	*VCP-42360261	
2510-027		Invensys	Pneumatic Valve	*VCP-42360262	
2510-028		Invensys	Pneumatic Valve	*VCP-42360260	
2510-030		Invensys	Pneumatic Valve	*VCP-41360261	
2510-031		Invensys	Pneumatic Valve	*VCP-41360262	
2510-032		Invensys	Pneumatic Valve	*VCP-41360260	
2510-034		Invensys	Pneumatic Valve	*VCP-51701271	
2510-035		Invensys	Pneumatic Valve	*VCP-51701272	
2510-036		Invensys	Pneumatic Valve	*VCP-51701270	
2510-038		Invensys	Pneumatic Valve	*VCP-52701271	
2510-039		Invensys	Pneumatic Valve	*VCP-52701272	
2510-040		Invensys	Pneumatic Valve	*VCP-52701270	
2510-042		Invensys	Pneumatic Valve	*VCP-51701271	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
2510-043		Invensys	Pneumatic Valve	*VCP-51701272	
2510-044		Invensys	Pneumatic Valve	*VCP-51701270	
2510-046		Invensys	Pneumatic Valve	*VCP-52701271	
2510-047		Invensys	Pneumatic Valve	*VCP-52701272	
2510-048		Invensys	Pneumatic Valve	*VCP-52701270	
2510-050		Invensys	Pneumatic Valve	*VCP-51701711	
2510-051		Invensys	Pneumatic Valve	*VCP-51701712	
2510-052		Invensys	Pneumatic Valve	*VCP-51701710	
2510-058		Invensys	Pneumatic Valve	*VCP-51711271	
2510-059		Invensys	Pneumatic Valve	*VCP-51711272	
2510-060		Invensys	Pneumatic Valve	*VCP-51711270	
2510-062		Invensys	Pneumatic Valve	*VCP-52711271	
2510-063		Invensys	Pneumatic Valve	*VCP-52711272	
2510-064		Invensys	Pneumatic Valve	*VCP-52711270	
2510-066		Invensys	Pneumatic Valve	*VCP-51711271	
2510-067		Invensys	Pneumatic Valve	*VCP-51711272	
2510-068		Invensys	Pneumatic Valve	*VCP-51711270	
2510-070		Invensys	Pneumatic Valve	*VCP-52711271	
2510-071		Invensys	Pneumatic Valve	*VCP-52711272	
2510-072		Invensys	Pneumatic Valve	*VCP-52711270	
2510-074		Invensys	Pneumatic Valve	*VCP-51711711	
2510-075		Invensys	Pneumatic Valve	*VCP-51711712	
2510-076		Invensys	Pneumatic Valve	*VCP-51711710	
2510-082		Invensys	Pneumatic Valve	*VCP-51721271	
2510-083		Invensys	Pneumatic Valve	*VCP-51721272	
2510-084		Invensys	Pneumatic Valve	*VCP-51721270	
2510-086		Invensys	Pneumatic Valve	*VCP-52721271	
2510-087		Invensys	Pneumatic Valve	*VCP-52721272	
2510-088		Invensys	Pneumatic Valve	*VCP-52721270	
2510-090		Invensys	Pneumatic Valve	*VCP-51721271	
2510-091		Invensys	Pneumatic Valve	*VCP-51721272	
2510-092		Invensys	Pneumatic Valve	*VCP-51721270	
2510-094		Invensys	Pneumatic Valve	*VCP-52721271	
2510-095		Invensys	Pneumatic Valve	*VCP-52721272	
2510-096		Invensys	Pneumatic Valve	*VCP-52721270	
2510-098		Invensys	Pneumatic Valve	*VCP-51721711	
2510-099		Invensys	Pneumatic Valve	*VCP-51721712	
2510-100		Invensys	Pneumatic Valve	*VCP-51721710	
2510-202		Invensys	Pneumatic Valve	*VCP-42330261	
2510-203		Invensys	Pneumatic Valve	*VCP-42330262	
2510-204		Invensys	Pneumatic Valve	*VCP-42330260	
2510-206		Invensys	Pneumatic Valve	*VCP-41330261	
2510-207		Invensys	Pneumatic Valve	*VCP-41330262	
2510-208		Invensys	Pneumatic Valve	*VCP-41330260	
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2510-211		Invensys	Pneumatic Valve	*VCP-42330262	
2510-212		Invensys	Pneumatic Valve	*VCP-42330260	
2510-214		Invensys	Pneumatic Valve	*VCP-41330261	
2510-215		Invensys	Pneumatic Valve	*VCP-41330262	
2510-216		Invensys	Pneumatic Valve	*VCP-41330260	
2510-218		Invensys	Pneumatic Valve	*VCP-42340261	
2510-219		Invensys	Pneumatic Valve	*VCP-42340262	
2510-220		Invensys	Pneumatic Valve	*VCP-42340260	
2510-222		Invensys	Pneumatic Valve	*VCP-41340261	
2510-223		Invensys	Pneumatic Valve	*VCP-41340262	
2510-224		Invensys	Pneumatic Valve	*VCP-41340260	
2510-226		Invensys	Pneumatic Valve	*VCP-42340261	
2510-227		Invensys	Pneumatic Valve	*VCP-42340262	
2510-228		Invensys	Pneumatic Valve	*VCP-42340260	
2510-230		Invensys	Pneumatic Valve	*VCP-41340261	
2510-231		Invensys	Pneumatic Valve	*VCP-41340262	
2510-232		Invensys	Pneumatic Valve	*VCP-41340260	
2545-321		Invensys	Pneumatic Valve	*VCP-41320260	
2545-322		Invensys	Pneumatic Valve	*VCP-41320260	
2545-323		Invensys	Pneumatic Valve	*VCP-41320260	

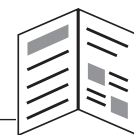


Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
2545-324		Invensys	Pneumatic Valve	*VCP-41320260	
2545-329		Invensys	Pneumatic Valve	*VCP-41330260	
2545-330		Invensys	Pneumatic Valve	*VCP-41330260	
2545-331		Invensys	Pneumatic Valve	*VCP-41330260	
2545-332		Invensys	Pneumatic Valve	*VCP-41330260	
2545-333		Invensys	Pneumatic Valve	*VCP-41340260	
2545-334		Invensys	Pneumatic Valve	*VCP-41340260	
2545-335		Invensys	Pneumatic Valve	*VCP-41340260	
2545-336		Invensys	Pneumatic Valve	*VCP-41340260	
2545-337		Invensys	Pneumatic Valve	*VCP-41350260	
2545-338		Invensys	Pneumatic Valve	*VCP-41350260	
2545-339		Invensys	Pneumatic Valve	*VCP-41350260	
2545-340		Invensys	Pneumatic Valve	*VCP-41350260	
2545-341		Invensys	Pneumatic Valve	*VCP-41360260	
2545-342		Invensys	Pneumatic Valve	*VCP-41360260	
2545-343		Invensys	Pneumatic Valve	*VCP-41360260	
2545-344		Invensys	Pneumatic Valve	*VCP-41360260	
2545-613		Invensys	Pneumatic Valve	*VCP-41350260	
2545-614		Invensys	Pneumatic Valve	*VCP-41350260	
2545-615		Invensys	Pneumatic Valve	*VCP-41350260	
2545-616		Invensys	Pneumatic Valve	*VCP-41350260	
2545-617		Invensys	Pneumatic Valve	*VCP-41360260	
2545-618		Invensys	Pneumatic Valve	*VCP-41360260	
2545-619		Invensys	Pneumatic Valve	*VCP-41360260	
2545-620		Invensys	Pneumatic Valve	*VCP-41360260	
2545-629		Invensys	Pneumatic Valve	*VCP-51701270	
2545-630		Invensys	Pneumatic Valve	*VCP-51701270	
2545-631		Invensys	Pneumatic Valve	*VCP-51701270	
2545-632		Invensys	Pneumatic Valve	*VCP-51701270	
2545-633		Invensys	Pneumatic Valve	*VCP-51711270	
2545-634		Invensys	Pneumatic Valve	*VCP-51711270	
2545-635		Invensys	Pneumatic Valve	*VCP-51711270	
2545-636		Invensys	Pneumatic Valve	*VCP-51711270	
2545-637		Invensys	Pneumatic Valve	*VCP-51721710	
2545-638		Invensys	Pneumatic Valve	*VCP-51721710	
2545-639		Invensys	Pneumatic Valve	*VCP-51721710	
2545-640		Invensys	Pneumatic Valve	*VCP-51721710	
2546-321		Invensys	Pneumatic Valve	*VCP-41320260	
2546-322		Invensys	Pneumatic Valve	*VCP-41320260	
2546-323		Invensys	Pneumatic Valve	*VCP-41320260	
2546-324		Invensys	Pneumatic Valve	*VCP-41320260	
2546-329		Invensys	Pneumatic Valve	*VCP-41330260	
2546-330		Invensys	Pneumatic Valve	*VCP-41330260	
2546-331		Invensys	Pneumatic Valve	*VCP-41330260	
2546-332		Invensys	Pneumatic Valve	*VCP-41330260	
2546-333		Invensys	Pneumatic Valve	*VCP-41340260	
2546-334		Invensys	Pneumatic Valve	*VCP-41340260	
2546-335		Invensys	Pneumatic Valve	*VCP-41340260	
2546-336		Invensys	Pneumatic Valve	*VCP-41340260	
2546-338		Invensys	Pneumatic Valve	*VCP-42350260	
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2546-340		Invensys	Pneumatic Valve	*VCP-42350260	
2546-341		Invensys	Pneumatic Valve	*VCP-41360260	
2546-342		Invensys	Pneumatic Valve	*VCP-41360260	
2546-343		Invensys	Pneumatic Valve	*VCP-41360260	
2546-613		Invensys	Pneumatic Valve	*VCP-42350260	
2546-614		Invensys	Pneumatic Valve	*VCP-42350260	
2546-615		Invensys	Pneumatic Valve	*VCP-42350260	
2546-616		Invensys	Pneumatic Valve	*VCP-42350260	
2546-617		Invensys	Pneumatic Valve	*VCP-42360260	
2546-629		Invensys	Pneumatic Valve	*VCP-51701270	
2546-630		Invensys	Pneumatic Valve	*VCP-51701270	
2546-631		Invensys	Pneumatic Valve	*VCP-51701270	
2546-632		Invensys	Pneumatic Valve	*VCP-51701270	
2546-633		Invensys	Pneumatic Valve	*VCP-51711270	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
2546-634		Invensys	Pneumatic Valve	*VCP-51711270	
2546-635		Invensys	Pneumatic Valve	*VCP-51711270	
2546-636		Invensys	Pneumatic Valve	*VCP-51711270	
2546-637		Invensys	Pneumatic Valve	*VCP-51721710	
2546-638		Invensys	Pneumatic Valve	*VCP-51721710	
2546-639		Invensys	Pneumatic Valve	*VCP-51721710	
2546-640		Invensys	Pneumatic Valve	*VCP-51721710	
2547-309		Invensys	Pneumatic Valve	*VCP-41310260	
2547-310		Invensys	Pneumatic Valve	*VCP-41310260	
2547-311		Invensys	Pneumatic Valve	*VCP-41310260	
2547-312		Invensys	Pneumatic Valve	*VCP-41310260	
2547-321		Invensys	Pneumatic Valve	*VCP-41320260	
2547-322		Invensys	Pneumatic Valve	*VCP-41320260	
2547-323		Invensys	Pneumatic Valve	*VCP-41320260	
2547-324		Invensys	Pneumatic Valve	*VCP-41320260	
2547-329		Invensys	Pneumatic Valve	*VCP-41330260	
2547-330		Invensys	Pneumatic Valve	*VCP-41330260	
2547-331		Invensys	Pneumatic Valve	*VCP-41330260	
2547-332		Invensys	Pneumatic Valve	*VCP-41330260	
2547-333		Invensys	Pneumatic Valve	*VCP-41340260	
2547-334		Invensys	Pneumatic Valve	*VCP-41340260	
2547-335		Invensys	Pneumatic Valve	*VCP-41340260	
2547-336		Invensys	Pneumatic Valve	*VCP-41340260	
2547-337		Invensys	Pneumatic Valve	*VCP-41350260	
2547-338		Invensys	Pneumatic Valve	*VCP-41350261	
2547-339		Invensys	Pneumatic Valve	*VCP-41350262	
2547-340		Invensys	Pneumatic Valve	*VCP-41350260	
2547-341		Invensys	Pneumatic Valve	*VCP-41360260	
2547-342		Invensys	Pneumatic Valve	*VCP-41360260	
2547-343		Invensys	Pneumatic Valve	*VCP-41360260	
2547-344		Invensys	Pneumatic Valve	*VCP-41360260	
2547-637		Invensys	Pneumatic Valve	*VCP-41350263	
2547-638		Invensys	Pneumatic Valve	*VCP-41350264	
2547-639		Invensys	Pneumatic Valve	*VCP-41350265	
2547-640		Invensys	Pneumatic Valve	*VCP-41350260	
2547-641		Invensys	Pneumatic Valve	*VCP-41360260	
2547-642		Invensys	Pneumatic Valve	*VCP-41360260	
2547-643		Invensys	Pneumatic Valve	*VCP-41360260	
2547-644		Invensys	Pneumatic Valve	*VCP-41360260	
2548-309		Invensys	Pneumatic Valve	*VCP-42310260	
2548-310		Invensys	Pneumatic Valve	*VCP-42310260	
2548-311		Invensys	Pneumatic Valve	*VCP-42310260	
2548-312		Invensys	Pneumatic Valve	*VCP-42310260	
2548-321		Invensys	Pneumatic Valve	*VCP-42320260	
2548-322		Invensys	Pneumatic Valve	*VCP-42320260	
2548-323		Invensys	Pneumatic Valve	*VCP-42320260	
2548-324		Invensys	Pneumatic Valve	*VCP-42320260	
2548-329		Invensys	Pneumatic Valve	*VCP-42330260	
2548-330		Invensys	Pneumatic Valve	*VCP-42330260	
2548-331		Invensys	Pneumatic Valve	*VCP-42330260	
2548-332		Invensys	Pneumatic Valve	*VCP-42330260	
2548-333		Invensys	Pneumatic Valve	*VCP-42340260	
2548-334		Invensys	Pneumatic Valve	*VCP-42340260	
2548-335		Invensys	Pneumatic Valve	*VCP-42340260	
2548-336		Invensys	Pneumatic Valve	*VCP-42340260	
2548-337		Invensys	Pneumatic Valve	*VCP-41350266	
2548-338		Invensys	Pneumatic Valve	*VCP-41350267	
2548-339		Invensys	Pneumatic Valve	*VCP-41350268	
2548-340		Invensys	Pneumatic Valve	*VCP-41350260	
2548-341		Invensys	Pneumatic Valve	*VCP-42360260	
2548-342		Invensys	Pneumatic Valve	*VCP-42360260	
2548-343		Invensys	Pneumatic Valve	*VCP-42360260	
2548-344		Invensys	Pneumatic Valve	*VCP-42360260	
2548-637		Invensys	Pneumatic Valve	*VCP-41350269	
2548-638		Invensys	Pneumatic Valve	*VCP-41350270	

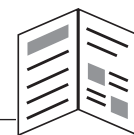


Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
2548-639		Invensys	Pneumatic Valve	*VCP-41350271	
2548-640		Invensys	Pneumatic Valve	*VCP-41350260	
2548-641		Invensys	Pneumatic Valve	*VCP-42360260	
2548-642		Invensys	Pneumatic Valve	*VCP-42360260	
2548-643		Invensys	Pneumatic Valve	*VCP-42360260	
2548-644		Invensys	Pneumatic Valve	*VCP-42360260	
255-0450		Siemens	EP Switch	VEC-1022	
255-0460		Siemens	EP Switch	VEC-1023	
255-0470		Siemens	EP Switch	VEC-1029	
255-0480		Siemens	EP Switch	VEC-1026	
2552-301		Invensys	Pneumatic Valve	*VCP-43310251	
2552-302		Invensys	Pneumatic Valve	*VCP-43310250	
2552-303		Invensys	Pneumatic Valve	*VCP-43310250	
2552-304		Invensys	Pneumatic Valve	*VCP-43310250	
2552-305		Invensys	Pneumatic Valve	*VCP-43310250	
2552-311		Invensys	Pneumatic Valve	*VCP-43320251	
2552-312		Invensys	Pneumatic Valve	*VCP-43320250	
2552-313		Invensys	Pneumatic Valve	*VCP-43320250	
2552-314		Invensys	Pneumatic Valve	*VCP-43320250	
2552-315		Invensys	Pneumatic Valve	*VCP-43320250	
2552-316		Invensys	Pneumatic Valve	*VCP-43330251	
2552-319		Invensys	Pneumatic Valve	*VCP-43330250	
2552-320		Invensys	Pneumatic Valve	*VCP-43330250	
2552-321		Invensys	Pneumatic Valve	*VCP-43340250	
2552-321		Invensys	Pneumatic Valve	*VCP-43340251	
2552-322		Invensys	Pneumatic Valve	*VCP-43340250	
2552-323		Invensys	Pneumatic Valve	*VCP-43340250	
2552-324		Invensys	Pneumatic Valve	*VCP-43340250	
2552-325		Invensys	Pneumatic Valve	*VCP-43340250	
2552-326		Invensys	Pneumatic Valve	*VCP-43350251	
2552-327		Invensys	Pneumatic Valve	*VCP-43350250	
2552-328		Invensys	Pneumatic Valve	*VCP-43350250	
2552-329		Invensys	Pneumatic Valve	*VCP-43350250	
2552-330		Invensys	Pneumatic Valve	*VCP-43360251	
2552-331		Invensys	Pneumatic Valve	*VCP-43360250	
2552-332		Invensys	Pneumatic Valve	*VCP-43360250	
2552-333		Invensys	Pneumatic Valve	*VCP-43360250	
2552-601		Invensys	Pneumatic Valve	*VCP-43350261	
2552-602		Invensys	Pneumatic Valve	*VCP-43350260	
2552-603		Invensys	Pneumatic Valve	*VCP-43350262	
2552-604		Invensys	Pneumatic Valve	*VCP-43350260	
2552-606		Invensys	Pneumatic Valve	*VCP-43360261	
2552-607		Invensys	Pneumatic Valve	*VCP-43360260	
2552-608		Invensys	Pneumatic Valve	*VCP-43360262	
2552-609		Invensys	Pneumatic Valve	*VCP-43360260	
2552-610		Invensys	Pneumatic Valve	*VCP-43360260	
2552-621		Invensys	Pneumatic Valve	*VCP-53621271	
2552-622		Invensys	Pneumatic Valve	*VCP-53621270	
2552-623		Invensys	Pneumatic Valve	*VCP-53621272	
2552-624		Invensys	Pneumatic Valve	*VCP-53621270	
2552-625		Invensys	Pneumatic Valve	*VCP-53621270	
2552-626		Invensys	Pneumatic Valve	*VCP-53631271	
2552-627		Invensys	Pneumatic Valve	*VCP-53631270	
2552-628		Invensys	Pneumatic Valve	*VCP-53631712+E1020	
2552-629		Invensys	Pneumatic Valve	*VCP-53631270	
2552-630		Invensys	Pneumatic Valve	*VCP-53631270	
2566-002		Invensys	Pneumatic Valve	*VCP-43310241	
2566-004		Invensys	Pneumatic Valve	*VCP-43310242	
2566-006		Invensys	Pneumatic Valve	*VCP-43310240	
2566-008		Invensys	Pneumatic Valve	*VCP-43320241	
2566-010		Invensys	Pneumatic Valve	*VCP-43320242	
2566-012		Invensys	Pneumatic Valve	*VCP-43320240	
2566-014		Invensys	Pneumatic Valve	*VCP-43330241	
2566-016		Invensys	Pneumatic Valve	*VCP-43330242	
2566-018		Invensys	Pneumatic Valve	*VCP-43330240	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
2566-020		Invensys	Pneumatic Valve	*VCP-43340241	
2566-022		Invensys	Pneumatic Valve	*VCP-43340242	
2566-023		Invensys	Pneumatic Valve	*VCP-43340240	
2566-025		Invensys	Pneumatic Valve	*VCP-43350241	
2566-027		Invensys	Pneumatic Valve	*VCP-43350242	
2566-028		Invensys	Pneumatic Valve	*VCP-43350240	
2566-030		Invensys	Pneumatic Valve	*VCP-43360241	
2566-032		Invensys	Pneumatic Valve	*VCP-43360242	
2566-033		Invensys	Pneumatic Valve	*VCP-43360240	
2567-013		Invensys	Pneumatic Valve	*VCP-42310241	
2567-015		Invensys	Pneumatic Valve	*VCP-42310242	
2567-016		Invensys	Pneumatic Valve	*VCP-42310240	
2567-017		Invensys	Pneumatic Valve	*VCP-42320241	
2567-019		Invensys	Pneumatic Valve	*VCP-42320242	
2567-020		Invensys	Pneumatic Valve	*VCP-42320240	
2567-021		Invensys	Pneumatic Valve	*VCP-42330241	
2567-023		Invensys	Pneumatic Valve	*VCP-42330242	
2567-024		Invensys	Pneumatic Valve	*VCP-42330240	
2567-025		Invensys	Pneumatic Valve	*VCP-42340241	
2567-027		Invensys	Pneumatic Valve	*VCP-42340242	
2567-028		Invensys	Pneumatic Valve	*VCP-42340240	
2567-029		Invensys	Pneumatic Valve	*VCP-42350241	
2567-031		Invensys	Pneumatic Valve	*VCP-42350242	
2567-032		Invensys	Pneumatic Valve	*VCP-42350240	
2567-033		Invensys	Pneumatic Valve	*VCP-42360241	
2567-035		Invensys	Pneumatic Valve	*VCP-42360242	
2567-036		Invensys	Pneumatic Valve	*VCP-42360240	
2568-013		Invensys	Pneumatic Valve	*VCP-41310242	
2568-014		Invensys	Pneumatic Valve	*VCP-41310241	
2568-015		Invensys	Pneumatic Valve	*VCP-41310240	
2568-018		Invensys	Pneumatic Valve	*VCP-41320242	
2568-019		Invensys	Pneumatic Valve	*VCP-41320241	
2568-020		Invensys	Pneumatic Valve	*VCP-41320240	
2568-023		Invensys	Pneumatic Valve	*VCP-41330242	
2568-024		Invensys	Pneumatic Valve	*VCP-41330241	
2568-025		Invensys	Pneumatic Valve	*VCP-41330240	
2568-028		Invensys	Pneumatic Valve	*VCP-41340242	
2568-029		Invensys	Pneumatic Valve	*VCP-41340241	
2568-030		Invensys	Pneumatic Valve	*VCP-41340240	
2568-033		Invensys	Pneumatic Valve	*VCP-41350242	
2568-034		Invensys	Pneumatic Valve	*VCP-41350241	
2568-035		Invensys	Pneumatic Valve	*VCP-41350240	
2568-038		Invensys	Pneumatic Valve	*VCP-41360242	
2568-039		Invensys	Pneumatic Valve	*VCP-41360241	
2568-040		Invensys	Pneumatic Valve	*VCP-41360240	
265-0001		Siemens	EP Switch	VEC-1021	
265-0002		Siemens	EP Switch	VEC-1022	
265-0003		Siemens	EP Switch	VEC-1026	
265-0004		Siemens	EP Switch	VEC-1023	
265-0006		Siemens	EP Switch	VEC-1030	
265-0007		Siemens	EP Switch	VEC-1021	
265-0008		Siemens	EP Switch	VEC-1022	
265-0009		Siemens	EP Switch	VEC-1011	
265-1001		Siemens	EP Switch	VEC-1021	
265-1002		Siemens	EP Switch	VEC-1022	
265-1002		Siemens	EP Switch	VEC-1022	
265-1003		Siemens	EP Switch	VEC-1026	
265-1004		Siemens	EP Switch	VEC-1023	
265-1006		Siemens	EP Switch	VEC-1025	
265-1007		Siemens	EP Switch	VEC-1011	
265-1008		Siemens	EP Switch	VEC-1012	
265-1013		Siemens	EP Switch	VEC-1021	
265-1014		Siemens	EP Switch	VEC-1022	
265-1015		Siemens	EP Switch	VEC-1026	



Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
265-1016		Siemens	EP Switch	VEC-1023	
265-1018		Siemens	EP Switch	VEC-1031	
265-1019		Siemens	EP Switch	VEC-1011	
265-1020		Siemens	EP Switch	VEC-1012	
268-03056		Siemens	Pneumatic Valve	*VCP-41310251	
268-03110		Siemens	Pneumatic Valve	*VCP-41310251	
268-03112		Siemens	Pneumatic Valve	*VCP-41320251	
268-03113		Siemens	Pneumatic Valve	*VCP-41330251	
268-03114		Siemens	Pneumatic Valve	*VCP-41340251	
268-03115		Siemens	Pneumatic Valve	*VCP-41350251	
268-03115		Siemens	Pneumatic Valve	*VCP-41350251	
268-03116		Siemens	Pneumatic Valve	*VCP-41360251	
268-03128		Siemens	Pneumatic Valve	*VCP-42310251	
268-03162		Siemens	Pneumatic Valve	*VCP-41310251	
268-03163		Siemens	Pneumatic Valve	*VCP-41310251	
268-03164		Siemens	Pneumatic Valve	*VCP-41310251	
268-03166		Siemens	Pneumatic Valve	*VCP-41320251	
268-03167		Siemens	Pneumatic Valve	*VCP-41330251	
268-03168		Siemens	Pneumatic Valve	*VCP-41340251	
268-03170		Siemens	Pneumatic Valve	*VCP-41360251	
268-03182		Siemens	Pneumatic Valve	*VCP-42310251	
268-03188		Siemens	Pneumatic Valve	*VCP-42360251	
268-03200		Siemens	Pneumatic Valve	*VCP-43310251	
268-03202		Siemens	Pneumatic Valve	*VCP-43320251	
268-03203		Siemens	Pneumatic Valve	*VCP-43330251	
268-03204		Siemens	Pneumatic Valve	*VCP-43340251	
268-03205		Siemens	Pneumatic Valve	*VCP-43350251	
268-03206		Siemens	Pneumatic Valve	*VCP-43360251	
271-03002		Siemens	Electric Valve	*VEP-45310845	
271-03004		Siemens	Electric Valve	*VEP-45320845	
271-03005		Siemens	Electric Valve	*VEP-45330845	
271-03006		Siemens	Electric Valve	*VEP-45340845	
271-03007		Siemens	Electric Valve	*VEP-45350845	
271-03008		Siemens	Electric Valve	*VEP-45360845	
271-03110		Siemens	Electric Valve	*VEP-45310845	
271-03112		Siemens	Electric Valve	*VEP-45320845	
271-03113		Siemens	Electric Valve	*VEP-45330845	
271-03114		Siemens	Electric Valve	*VEP-45340845	
271-03115		Siemens	Electric Valve	*VEP-45350845	
271-03116		Siemens	Electric Valve	*VEP-45360845	
271-03128		Siemens	Electric Valve	*VEP-45310845	
271-03130		Siemens	Electric Valve	*VEP-45320845	
271-03131		Siemens	Electric Valve	*VEP-45330845	
271-03132		Siemens	Electric Valve	*VEP-45340845	
271-03133		Siemens	Electric Valve	*VEP-45350845	
271-03134		Siemens	Electric Valve	*VEP-45360845	
271-03146		Siemens	Electric Valve	*VEP-43310845	
271-03148		Siemens	Electric Valve	*VEP-43320845	
271-03149		Siemens	Electric Valve	*VEP-43330845	
271-03150		Siemens	Electric Valve	*VEP-43340845	
271-03151		Siemens	Electric Valve	*VEP-43350845	
271-03152		Siemens	Electric Valve	*VEP-43360845	
271-03200		Siemens	Electric Valve	*VEP-43310845	
271-03202		Siemens	Electric Valve	*VEP-43320845	
271-03203		Siemens	Electric Valve	*VEP-43330845	
271-03204		Siemens	Electric Valve	*VEP-43340845	
271-03205		Siemens	Electric Valve	*VEP-43350845	
271-03206		Siemens	Electric Valve	*VEP-43360845	
273-03164		Siemens	Electric Valve	*VEP-45310856	
273-03166		Siemens	Electric Valve	*VEP-45320856	
273-03167		Siemens	Electric Valve	*VEP-45330856	
273-03168		Siemens	Electric Valve	*VEP-45340856	
273-03200		Siemens	Electric Valve	*VEP-43310856	
273-03202		Siemens	Electric Valve	*VEP-43320856	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
273-03203		Siemens	Electric Valve	*VEP-43330856	
273-03204		Siemens	Electric Valve	*VEP-43340856	
274-03002		Siemens	Electric Valve	*VEP-45310875	
274-03004		Siemens	Electric Valve	*VEP-45320875	
274-03005		Siemens	Electric Valve	*VEP-45330875	
274-03006		Siemens	Electric Valve	*VEP-45340875	
274-03007		Siemens	Electric Valve	*VEP-45350875	
274-03008		Siemens	Electric Valve	*VEP-45360875	
274-03110		Siemens	Electric Valve	*VEP-45310875	
274-03112		Siemens	Electric Valve	*VEP-45320875	
274-03113		Siemens	Electric Valve	*VEP-45330875	
274-03114		Siemens	Electric Valve	*VEP-45340875	
274-03115		Siemens	Electric Valve	*VEP-45340875	
274-03116		Siemens	Electric Valve	*VEP-45350875	
274-03146		Siemens	Electric Valve	*VEP-43310875	
274-03148		Siemens	Electric Valve	*VEP-43320875	
274-03149		Siemens	Electric Valve	*VEP-43330875	
274-03150		Siemens	Electric Valve	*VEP-43340875	
274-03151		Siemens	Electric Valve	*VEP-43350875	
274-03152		Siemens	Electric Valve	*VEP-43360875	
274-03166		Siemens	Electric Valve	*VEP-45320875	
274-03167		Siemens	Electric Valve	*VEP-45330875	
274-03168		Siemens	Electric Valve	*VEP-45340875	
274-03169		Siemens	Electric Valve	*VEP-45350875	
274-03170		Siemens	Electric Valve	*VEP-45360875	
274-03184		Siemens	Electric Valve	*VEP-45320875	
274-03185		Siemens	Electric Valve	*VEP-45330875	
274-03186		Siemens	Electric Valve	*VEP-45340875	
274-03187		Siemens	Electric Valve	*VEP-45350875	
274-03188		Siemens	Electric Valve	*VEP-45360875	
274-03200		Siemens	Electric Valve	*VEP-43310875	
274-03202		Siemens	Electric Valve	*VEP-43320875	
274-03204		Siemens	Electric Valve	*VEP-43340875	
274-03205		Siemens	Electric Valve	*VEP-43350875	
274-03206		Siemens	Electric Valve	*VEP-43350875	
276-03184		Siemens	Electric Valve	*VEP-45320886	
276-03185		Siemens	Electric Valve	*VEP-45330886	
276-03186		Siemens	Electric Valve	*VEP-45340886	
276-03187		Siemens	Electric Valve	*VEP-45350886	
276-03188		Siemens	Electric Valve	*VEP-45360886	
277-03110		Siemens	Pneumatic Valve	*VCP-41310260	
277-03112		Siemens	Pneumatic Valve	*VCP-41320260	
277-03113		Siemens	Pneumatic Valve	*VCP-41330260	
277-03114		Siemens	Pneumatic Valve	*VCP-41340260	
277-03115		Siemens	Pneumatic Valve	*VCP-41350260	
277-03116		Siemens	Pneumatic Valve	*VCP-41360260	
277-03128		Siemens	Pneumatic Valve	*VCP-42310260	
277-03130		Siemens	Pneumatic Valve	*VCP-42320260	
277-03131		Siemens	Pneumatic Valve	*VCP-42330260	
277-03132		Siemens	Pneumatic Valve	*VCP-42340260	
277-03133		Siemens	Pneumatic Valve	*VCP-42350260	
277-03134		Siemens	Pneumatic Valve	*VCP-42360260	
277-03166		Siemens	Pneumatic Valve	*VCP-41320260	
277-03167		Siemens	Pneumatic Valve	*VCP-41330260	
277-03168		Siemens	Pneumatic Valve	*VCP-41340260	
277-03169		Siemens	Pneumatic Valve	*VCP-41350260	
277-03170		Siemens	Pneumatic Valve	*VCP-41360260	
277-03184		Siemens	Pneumatic Valve	*VCP-42320260	
277-03185		Siemens	Pneumatic Valve	*VCP-42330260	
277-03186		Siemens	Pneumatic Valve	*VCP-42340260	
277-03187		Siemens	Pneumatic Valve	*VCP-42350260	
277-03188		Siemens	Pneumatic Valve	*VCP-42360260	
277-03200		Siemens	Pneumatic Valve	*VCP-43310260	
277-03202		Siemens	Pneumatic Valve	*VCP-43320260	



Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
277-03203		Siemens	Pneumatic Valve	*VCP-43330260	
277-03204		Siemens	Pneumatic Valve	*VCP-43340260	
277-03205		Siemens	Pneumatic Valve	*VCP-43350260	
277-03206		Siemens	Pneumatic Valve	*VCP-43360260	
277-05980		Siemens	Pneumatic Valve	*VCP-51701270	
277-05981		Siemens	Pneumatic Valve	*VCP-51711270	
277-05990		Siemens	Pneumatic Valve	*VCP-52701270	
277-05991		Siemens	Pneumatic Valve	*VCP-52711270	
277-06160		Siemens	Pneumatic Valve	*VCP-53621270	
277-06161		Siemens	Pneumatic Valve	*VCP-53631270	
279-05980		Siemens	Pneumatic Valve	*VCP-51701710	
279-05981		Siemens	Pneumatic Valve	*VCP-51711710	
279-05990		Siemens	Pneumatic Valve	*VCP-52701710	
279-05991		Siemens	Pneumatic Valve	*VCP-52721710	
279-06160		Siemens	Pneumatic Valve	*VCP-53621710	
279-06161		Siemens	Pneumatic Valve	*VCP-53631710	
281-05963		Siemens	Pneumatic Valve	*VCP-51733720	
281-05964		Siemens	Pneumatic Valve	*VCP-51743720	
281-05982		Siemens	Pneumatic Valve	*VCP-51721710	
281-05984		Siemens	Pneumatic Valve	*VCP-51741710	
281-05992		Siemens	Pneumatic Valve	*VCP-52721710	
281-06162		Siemens	Pneumatic Valve	*VCP-53641710	
281-06163		Siemens	Pneumatic Valve	*VCP-53651710	
281-06164		Siemens	Pneumatic Valve	*VCP-53661710	
283-03110		Siemens	Pneumatic Valve	*VCP-41310260	
283-03112		Siemens	Pneumatic Valve	*VCP-41320260	
283-03113		Siemens	Pneumatic Valve	*VCP-41330260	
283-03114		Siemens	Pneumatic Valve	*VCP-41340260	
283-03115		Siemens	Pneumatic Valve	*VCP-41350260	
283-03116		Siemens	Pneumatic Valve	*VCP-41360260	
283-03128		Siemens	Pneumatic Valve	*VCP-42310260	
283-03130		Siemens	Pneumatic Valve	*VCP-42320260	
283-03131		Siemens	Pneumatic Valve	*VCP-42330260	
283-03132		Siemens	Pneumatic Valve	*VCP-42340260	
283-03134		Siemens	Pneumatic Valve	*VCP-42360260	
283-03166		Siemens	Pneumatic Valve	*VCP-41320260	
283-03167		Siemens	Pneumatic Valve	*VCP-41330260	
283-03168		Siemens	Pneumatic Valve	*VCP-41340260	
283-03169		Siemens	Pneumatic Valve	*VCP-41350260	
283-03170		Siemens	Pneumatic Valve	*VCP-41360260	
283-03184		Siemens	Pneumatic Valve	*VCP-42320260	
283-03185		Siemens	Pneumatic Valve	*VCP-42330260	
283-03186		Siemens	Pneumatic Valve	*VCP-42340260	
283-03187		Siemens	Pneumatic Valve	*VCP-42350260	
283-03188		Siemens	Pneumatic Valve	*VCP-42360260	
283-03200		Siemens	Pneumatic Valve	*VCP-43310260	
283-03202		Siemens	Pneumatic Valve	*VCP-43320260	
283-03203		Siemens	Pneumatic Valve	*VCP-43330260	
283-03204		Siemens	Pneumatic Valve	*VCP-43340260	
283-03205		Siemens	Pneumatic Valve	*VCP-43350260	
283-03206		Siemens	Pneumatic Valve	*VCP-43360260	
283-05980		Siemens	Pneumatic Valve	*VCP-51701270	
283-05981		Siemens	Pneumatic Valve	*VCP-51711270	
283-05990		Siemens	Pneumatic Valve	*VCP-52701270	
283-05991		Siemens	Pneumatic Valve	*VCP-52711272	
283-06160		Siemens	Pneumatic Valve	*VCP-53621270	
283-06161		Siemens	Pneumatic Valve	*VCP-53631270	
285-05980		Siemens	Pneumatic Valve	*VCP-51701710	
285-05981		Siemens	Pneumatic Valve	*VCP-51711710	
285-05990		Siemens	Pneumatic Valve	*VCP-52701710	
285-05991		Siemens	Pneumatic Valve	*VCP-52711710	
285-06160		Siemens	Pneumatic Valve	*VCP-53621710	
285-06161		Siemens	Pneumatic Valve	*VCP-53631710	
287-05973		Siemens	Pneumatic Valve	*VCP-52733710	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
287-05974		Siemens	Pneumatic Valve	*VCP-52743710	
287-05982		Siemens	Pneumatic Valve	*VCP-51721710	
287-05983		Siemens	Pneumatic Valve	*VCP-51731710	
287-05984		Siemens	Pneumatic Valve	*VCP-51741710	
287-05992		Siemens	Pneumatic Valve	*VCP-52721710	
287-05993		Siemens	Pneumatic Valve	*VCP-52731710	
287-05994		Siemens	Pneumatic Valve	*VCP-52741710	
287-06162		Siemens	Pneumatic Valve	*VCP-53641710	
287-06163		Siemens	Pneumatic Valve	*VCP-53651710	
287-06164		Siemens	Pneumatic Valve	*VCP-53661710	
295-05920		Siemens	Electric Valve	*VEP-58702945 / VEB-4310DBCK (0-10 VDC)	
295-05921		Siemens	Electric Valve	*VEP-58712945 / VEB-4312DBCK (0-10 VDC)	
295-05960		Siemens	Electric Valve	*VEP-58703945 / VEB-4310DBCK (0-10 VDC)	
295-05961		Siemens	Electric Valve	*VEP-58713945 / VEB-4312DBCK (0-10 VDC)	
295-05980		Siemens	Electric Valve	*VEP-58701945 / VEB-4310DBCK (0-10 VDC)	
295-05981		Siemens	Electric Valve	*VEP-58711945 / VEB-4312DBCK (0-10 VDC)	
295-06160		Siemens	Electric Valve	*VEP-53621945 / VEB-4610EBCK (0-10 VDC)	
295-06161		Siemens	Electric Valve	*VEP-53631945 / VEB-4610FBCK (0-10 VDC)	
295-06175		Siemens	Electric Valve	*VEP-53622945 / VEB-4610EBCK (0-10 VDC)	
295-06176		Siemens	Electric Valve	*VEP-53632945 / VEB-4610FBCK (0-10 VDC)	
296-05920		Siemens	Electric Valve	*VEP-58702695	
296-05920		Siemens	Electric Valve	*VEP-58702695	
296-05921		Siemens	Electric Valve	*VEP-58712695	
296-05921		Siemens	Electric Valve	*VEP-58712695	
296-05960		Siemens	Electric Valve	*VEP-58703695	
296-05960		Siemens	Electric Valve	*VEP-58703695	
296-05961		Siemens	Electric Valve	*VEP-58713695	
296-05961		Siemens	Electric Valve	*VEP-58713695	
296-05980		Siemens	Electric Valve	*VEP-58701675 / VEB-4310DBDL	
296-05981		Siemens	Electric Valve	*VEP-58711675 / VEB-4310DBCK (0-10 VDC)	
296-06160		Siemens	Electric Valve	*VEP-53621675 / VEB-4610EBDL	
296-06161		Siemens	Electric Valve	*VEP-53631675 / VEB-4610FBDL	
296-06175		Siemens	Electric Valve	*VEP-53622675 / VEB-4610EBDL	
296-06176		Siemens	Electric Valve	*VEP-53632675 / VEB-4610FBDL	
297-05922		Siemens	Electric Valve	*VEP-58722A45 / VEB-5316DSFK (0-10 VDC)	
297-05962		Siemens	Electric Valve	*VEP-58723A45 / VEB-5316DSFK (0-10 VDC)	
297-05982		Siemens	Electric Valve	*VEP-58721A45 / VEB-5316DSFK (0-10 VDC)	
297-06162		Siemens	Electric Valve	*VEP-53641A45 / VEB-5616DSFK (0-10 VDC)	
297-06177		Siemens	Electric Valve	*VEP-53642A45 / VEB-5616DSFK (0-10 VDC)	
29803002		Siemens	Electric Valve	*VEP-45310875 / VEG-4302JRDL	
29803004		Siemens	Electric Valve	*VEP-45320875 / VEG-4303DRDL	
29803005		Siemens	Electric Valve	*VEP-45330875 / VEG-4304CRFL	
29803006		Siemens	Electric Valve	*VEP-45340875 / VEG-4305ARFL	
29803007		Siemens	Electric Valve	*VEP-45350875 / VEG-4306ARFL	
29803008		Siemens	Electric Valve	*VEP-45360875 / VEG-4308ARFL	
29803200		Siemens	Electric Valve	*VEP-43310875 / VEG-4502JRDL	
29803202		Siemens	Electric Valve	*VEP-43320875 / VEG-4503JRDL	
29803203		Siemens	Electric Valve	*VEP-43330875 / VEG-4504CRFL	
29803204		Siemens	Electric Valve	*VEP-43340875 / VEG-4505ARFL	
29803205		Siemens	Electric Valve	*VEP-43350875 / VEG-4506ARFL	
29803206		Siemens	Electric Valve	*VEP-43360875 / VEG-4508ARFL	
298-2071		Siemens	Electric Valve	*VEP-45330845 / VEG-4304CRFK	
298-2073		Siemens	Electric Valve	*VEP-45340875 / VEG-4305ARFL	
298-2178		Siemens	Electric Valve	*VEP-43360845 / VEG-4508ARFK	
298-2184		Siemens	Electric Valve	*VEP-53642A45 / VEB-5616DSFK (0-10 VDC)	
3xxxxx					
331-0200		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-0220		Siemens	Pneumatic Damper Actuator	MCP-5140-8520	
331-0240		Siemens	Pneumatic Damper Actuator	MCP-5140-2520	
331-0520		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-0540		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-1000		Siemens	Pneumatic Damper Actuator	MCP-5160-9114	
331-1040		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	

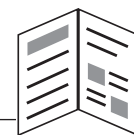


Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
331-1050		Siemens	Pneumatic Damper Actuator	MCP-1241-0520	
331-2570		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-2604		Siemens	Pneumatic Damper Actuator	MCP-5140-5208	
331-2605		Siemens	Pneumatic Damper Actuator	MCP-5140-3520	
331-2609		Siemens	Pneumatic Damper Actuator	MCP-5160-9114	
331-2628		Siemens	Pneumatic Damper Actuator	MCP-5140-2520	
331-2631		Siemens	Pneumatic Damper Actuator	MCP-5140-8520	
331-2632		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2637		Siemens	Pneumatic Damper Actuator	MCP-5140-5208	
331-2640		Siemens	Pneumatic Damper Actuator	MCP-5140-2520	
331-2642		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-2643		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2647		Siemens	Pneumatic Damper Actuator	MCP-5160-9114	
331-2653		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-2662		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-2668		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-2669		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-2672		Siemens	Pneumatic Damper Actuator	MCP-5160-9114	
331-2674		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-2681		Siemens	Pneumatic Damper Actuator	MCP-5140-2520	
331-2682		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2683		Siemens	Pneumatic Damper Actuator	MCP-5140-3520	
331-2684		Siemens	Pneumatic Damper Actuator	MCP-5140-8520	
331-2685		Siemens	Pneumatic Damper Actuator	MCP-5140-2520	
331-2686		Siemens	Pneumatic Damper Actuator	MCP-1241-0520	
331-2687		Siemens	Pneumatic Damper Actuator	MCP-5140-8520	
331-2688		Siemens	Pneumatic Damper Actuator	MCP-5160-9114	
331-2689		Siemens	Pneumatic Damper Actuator	MCP-5140-2520	
331-2691		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2692		Siemens	Pneumatic Damper Actuator	MCP-5140-3520	
331-2693		Siemens	Pneumatic Damper Actuator	MCP-5140-8520	
331-2694		Siemens	Pneumatic Damper Actuator	MCP-5140-2520	
331-2695		Siemens	Pneumatic Damper Actuator	MCP-1241-0520	
331-2696		Siemens	Pneumatic Damper Actuator	MCP-5160-9111	
331-2697		Siemens	Pneumatic Damper Actuator	MCP-5160-9111	
331-2703		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-2706		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-2707		Siemens	Pneumatic Damper Actuator	MCP-5160-9111	
331-2726		Siemens	Pneumatic Damper Actuator	MCP-1241-0211	
331-2740		Siemens	Pneumatic Damper Actuator	MCP-5160-9114	
331-2741		Siemens	Pneumatic Damper Actuator	MCP-5160-9111	
331-2743		Siemens	Pneumatic Damper Actuator	MCP-5160-9111	
331-2747		Siemens	Pneumatic Damper Actuator	MCP-1130-3520	
331-2749		Siemens	Pneumatic Damper Actuator	MCP-1040-3208	
331-2754		Siemens	Pneumatic Damper Actuator	MCP-5160-9114	
331-2756		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2758		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-2762		Siemens	Pneumatic Damper Actuator	MCP-1040-2208	
331-2767		Siemens	Pneumatic Damper Actuator	MCP-8031-5095	
331-2774		Siemens	Pneumatic Damper Actuator	MCP-5140-8520	
331-2775		Siemens	Pneumatic Damper Actuator	MCP-5140-8520	
331-2776		Siemens	Pneumatic Damper Actuator	MCP-5140-2520	
331-2777		Siemens	Pneumatic Damper Actuator	MCP-5140-2520	
331-2778		Siemens	Pneumatic Damper Actuator	MCP-5140-3520	
331-2779		Siemens	Pneumatic Damper Actuator	MCP-5140-3520	
331-2780		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2781		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2782		Siemens	Pneumatic Damper Actuator	MCP-5140-8520	
331-2784		Siemens	Pneumatic Damper Actuator	MCP-5140-3520	
331-2785		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2786		Siemens	Pneumatic Damper Actuator	MCP-1030-5108	
331-2788		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-2789		Siemens	Pneumatic Damper Actuator	MCP-1030-3108	
331-2790		Siemens	Pneumatic Damper Actuator	MCP-5140-5208	
331-2792		Siemens	Pneumatic Damper Actuator	MCP-5160-9114	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
331-2793		Siemens	Pneumatic Damper Actuator	MCP-5160-9114	
331-2794		Siemens	Pneumatic Damper Actuator	MCP-5160-9114	
331-2797		Siemens	Pneumatic Damper Actuator	MCP-5160-9111	
331-2798		Siemens	Pneumatic Damper Actuator	MCP-5160-9111	
331-2799		Siemens	Pneumatic Damper Actuator	MCP-5160-9111	
331-2801		Siemens	Pneumatic Damper Actuator	MCP-5160-9114	
331-2802		Siemens	Pneumatic Damper Actuator	MCP-5160-9114	
331-2812		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-2814		Siemens	Pneumatic Damper Actuator	MCP-5160-9111	
331-2827		Siemens	Pneumatic Damper Actuator	MCP-1030-5108	
331-2830		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-2833		Siemens	Pneumatic Damper Actuator	MCP-5160-9111	
331-2834		Siemens	Pneumatic Damper Actuator	MCP-5160-9114	
331-2845		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-2846		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-2847		Siemens	Pneumatic Damper Actuator	MCP-5140-8520	
331-2848		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2855		Siemens	Pneumatic Damper Actuator	MCP-1130-3520	
331-2860		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-2861		Siemens	Pneumatic Damper Actuator	MCP-1030-8108	
331-2863		Siemens	Pneumatic Damper Actuator	MCP-1030-5108	
331-2866		Siemens	Pneumatic Damper Actuator	MCP-8031-8195	
331-2870		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2872		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-2873		Siemens	Pneumatic Damper Actuator	MCP-1030-8108	
331-2874		Siemens	Pneumatic Damper Actuator	MCP-1030-5108	
331-2875		Siemens	Pneumatic Damper Actuator	MCP-1030-3108	
331-2878		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-2879		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-2880		Siemens	Pneumatic Damper Actuator	MCP-1130-3520	
331-2881		Siemens	Pneumatic Damper Actuator	MCP-1030-3108	
331-2891		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-2892		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-2893		Siemens	Pneumatic Damper Actuator	MCP-1130-3520	
331-2894		Siemens	Pneumatic Damper Actuator	MCP-1030-8108	
331-2895		Siemens	Pneumatic Damper Actuator	MCP-1030-5108	
331-2896		Siemens	Pneumatic Damper Actuator	MCP-1030-3108	
331-2904		Siemens	Pneumatic Damper Actuator	MCP-5140-8520	
331-2905		Siemens	Pneumatic Damper Actuator	MCP-5140-2520	
331-2906		Siemens	Pneumatic Damper Actuator	MCP-5140-3520	
331-2907		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2908		Siemens	Pneumatic Damper Actuator	MCP-1241-0211	
331-2909		Siemens	Pneumatic Damper Actuator	MCP-1241-0520	
331-2911		Siemens	Pneumatic Damper Actuator	MCP-1040-8208	
331-2915		Siemens	Pneumatic Damper Actuator	MCP-5140-8520	
331-2916		Siemens	Pneumatic Damper Actuator	MCP-5140-2520	
331-2917		Siemens	Pneumatic Damper Actuator	MCP-1040-3208	
331-2918		Siemens	Pneumatic Damper Actuator	MCP-1040-2208	
331-2920		Siemens	Pneumatic Damper Actuator	MCP-5140-3520	
331-2922		Siemens	Pneumatic Damper Actuator	MCP-5140-5208	
331-2925		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2927		Siemens	Pneumatic Damper Actuator	MCP-1241-0211	
331-2928		Siemens	Pneumatic Damper Actuator	MCP-1241-0520	
331-2929		Siemens	Pneumatic Damper Actuator	MCP-5140-8520	
331-2931		Siemens	Pneumatic Damper Actuator	MCP-5140-3520	
331-2932		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2934		Siemens	Pneumatic Damper Actuator	MCP-1040-3208	
331-2937		Siemens	Pneumatic Damper Actuator	MCP-5140-5208	
331-2938		Siemens	Pneumatic Damper Actuator	MCP-5140-8520	
331-2939		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2947		Siemens	Pneumatic Damper Actuator	MCP-1030-3108	
331-2961		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2963		Siemens	Pneumatic Damper Actuator	MCP-5140-5208	
331-2966		Siemens	Pneumatic Damper Actuator	MCP-1040-5208	
331-2966		Siemens	Pneumatic Damper Actuator	MCP-1040-5211	



Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
331-2968		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-2973		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-3000		Siemens	Pneumatic Damper Actuator	MCP-5140-8520	
331-3001		Siemens	Pneumatic Damper Actuator	MCP-5140-2520	
331-3002		Siemens	Pneumatic Damper Actuator	MCP-5140-3520	
331-3003		Siemens	Pneumatic Damper Actuator	MCP-5140-5520	
331-3004		Siemens	Pneumatic Damper Actuator	MCP-1241-0520	
331-3011		Siemens	Pneumatic Damper Actuator	MCP-5160-9111	
331-3012		Siemens	Pneumatic Damper Actuator	MCP-5160-9111	
331-3013		Siemens	Pneumatic Damper Actuator	MCP-5160-9111	
331-3020		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-3021		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-3022		Siemens	Pneumatic Damper Actuator	MCP-1130-3520	
331-3033		Siemens	Pneumatic Damper Actuator	MCP-1030-8108	
331-3035		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-3036		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-3037		Siemens	Pneumatic Damper Actuator	MCP-1130-3520	
331-3038		Siemens	Pneumatic Damper Actuator	MCP-1030-3108	
331-3041		Siemens	Pneumatic Damper Actuator	MCP-1030-3108	
331-3042		Siemens	Pneumatic Damper Actuator	MCP-1030-8108	
331-3043		Siemens	Pneumatic Damper Actuator	MCP-1030-5108	
331-3044		Siemens	Pneumatic Damper Actuator	MCP-1030-3108	
331-3046		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-3047		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-3048		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-3049		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-3050		Siemens	Pneumatic Damper Actuator	MCP-1130-3520	
331-3051		Siemens	Pneumatic Damper Actuator	MCP-8031-8195	
331-3052		Siemens	Pneumatic Damper Actuator	MCP-8031-5095	
331-3053		Siemens	Pneumatic Damper Actuator	MCP-1030-8108	
331-3054		Siemens	Pneumatic Damper Actuator	MCP-1030-5108	
331-3055		Siemens	Pneumatic Damper Actuator	MCP-1030-3108	
331-3690		Siemens	Pneumatic Damper Actuator	MCP-5140-2520	
331-4310		Siemens	Pneumatic Damper Actuator	MCP-1030-8108	
331-4311		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-4312		Siemens	Pneumatic Damper Actuator	MCP-1130-8520	
331-4313		Siemens	Pneumatic Damper Actuator	MCP-1030-8108	
331-4314		Siemens	Pneumatic Damper Actuator	MCP-8031-8101	
331-4510		Siemens	Pneumatic Damper Actuator	MCP-1030-3108	
331-4511		Siemens	Pneumatic Damper Actuator	MCP-1130-3520	
331-4512		Siemens	Pneumatic Damper Actuator	MCP-1130-3520	
331-4513		Siemens	Pneumatic Damper Actuator	MCP-1030-3108	
331-4514		Siemens	Pneumatic Damper Actuator	MCP-8031-3101	
331-4810		Siemens	Pneumatic Damper Actuator	MCP-1030-5108	
331-4811		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-4812		Siemens	Pneumatic Damper Actuator	MCP-1130-5520	
331-4813		Siemens	Pneumatic Damper Actuator	MCP-1030-5108	
331-4813		Siemens	Pneumatic Damper Actuator	MCP-1030-5111	
331-4814		Siemens	Pneumatic Damper Actuator	MCP-8031-5101	
332-2781		Siemens	Pneumatic Damper Actuator	MCP-5140-1520	
332-2785		Siemens	Pneumatic Damper Actuator	MCP-5140-1520	
332-2799		Siemens	Pneumatic Damper Actuator	MCP-5160-9111	
332-2926		Siemens	Pneumatic Damper Actuator	MCP-5140-1520	
332-2973		Siemens	Pneumatic Damper Actuator	MCP-5140-1520	
332-3003		Siemens	Pneumatic Damper Actuator	MCP-5140-1520	
332-3011		Siemens	Pneumatic Damper Actuator	MCP-5160-9111	
332-4811		Siemens	Pneumatic Damper Actuator	MCP-1130-1520	
339-0122		Siemens	Electric Valve	*VEP-43310856	
339-0123		Siemens	Electric Valve	*VEP-43320856	
339-0124		Siemens	Electric Valve	*VEP-43330856	
339-0125		Siemens	Electric Valve	*VEP-43340856	
339-0127		Siemens	Electric Valve	*VEP-45310856	
339-0128		Siemens	Electric Valve	*VEP-45320856	
339-0129		Siemens	Electric Valve	*VEP-45330856	
339-0130		Siemens	Electric Valve	*VEP-45340856	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
378-2000		Siemens	Diff Pressure Transmitter	TPC-1002	
4xxxxx					
4752-202		Johnson	Pneumatic Room Thermostat	CTC-1646-25	
5xxxxx					
515-0190		Siemens	Relief Valve	HAO-1070	
545-113		Siemens	Elec. Pneumatic Transducer	XEC-3004	
545-208		Siemens	Elec.-Pressure Transducer	XEC-3002	
589-2104		Siemens	Electric Valve	*VEP-45330875	
591-1620		Siemens	Pneumatic Valve	*VCP-51733720	
591-162B		Siemens	Pneumatic Valve	*VCP-51733720	
591-1640		Siemens	Pneumatic Valve	*VCP-51743720	
591-164B		Siemens	Pneumatic Valve	*VCP-51743720	
591-1760		Siemens	Pneumatic Valve	*VCP-52701710	
591-176B		Siemens	Pneumatic Valve	*VCP-52701710	
591-1780		Siemens	Pneumatic Valve	*VCP-52721710	
591-178B		Siemens	Pneumatic Valve	*VCP-52721710	
591-1800		Siemens	Pneumatic Valve	*VCP-52721710	
591-180B		Siemens	Pneumatic Valve	*VCP-52721710	
591-1820		Siemens	Pneumatic Valve	*VCP-52733710	
591-182B		Siemens	Pneumatic Valve	*VCP-52733710	
591-1840		Siemens	Pneumatic Valve	*VCP-52743710	
591-184B		Siemens	Pneumatic Valve	*VCP-52743710	
591-4260		Siemens	Pneumatic Valve	*VCP-53621710	
591-426A		Siemens	Pneumatic Valve	*VCP-53621710	
591-4280		Siemens	Pneumatic Valve	*VCP-53631270	
591-428B		Siemens	Pneumatic Valve	*VCP-53631270	
591-4300		Siemens	Pneumatic Valve	*VCP-53631270	
591-430B		Siemens	Pneumatic Valve	*VCP-53631270	
591-6030		Siemens	Pneumatic Valve	*VCP-41310260	
591-603C		Siemens	Pneumatic Valve	*VCP-41310260	
591-6040		Siemens	Pneumatic Valve	*VCP-41320260	
591-604C		Siemens	Pneumatic Valve	*VCP-41320260	
591-6050		Siemens	Pneumatic Valve	*VCP-41330260	
591-605C		Siemens	Pneumatic Valve	*VCP-41330260	
591-6060		Siemens	Pneumatic Valve	*VCP-41340260	
591-606C		Siemens	Pneumatic Valve	*VCP-41340260	
591-6070		Siemens	Pneumatic Valve	*VCP-41350272	
591-607C		Siemens	Pneumatic Valve	*VCP-41350273	
591-6080		Siemens	Pneumatic Valve	*VCP-41360260	
591-608C		Siemens	Pneumatic Valve	*VCP-41360260	
591-6120		Siemens	Pneumatic Valve	*VCP-41310260	
591-612C		Siemens	Pneumatic Valve	*VCP-41310260	
591-6130		Siemens	Pneumatic Valve	*VCP-41320260	
591-613C		Siemens	Pneumatic Valve	*VCP-41320260	
591-6140		Siemens	Pneumatic Valve	*VCP-41330260	
591-614C		Siemens	Pneumatic Valve	*VCP-41330260	
591-6150		Siemens	Pneumatic Valve	*VCP-41340260	
591-615C		Siemens	Pneumatic Valve	*VCP-41340260	
591-6160		Siemens	Pneumatic Valve	*VCP-41350274	
591-616C		Siemens	Pneumatic Valve	*VCP-41350275	
591-6170		Siemens	Pneumatic Valve	*VCP-41360260	
591-617C		Siemens	Pneumatic Valve	*VCP-41360260	
591-6210		Siemens	Pneumatic Valve	*VCP-42310260	
591-621C		Siemens	Pneumatic Valve	*VCP-42310260	
591-6220		Siemens	Pneumatic Valve	*VCP-42320260	
591-6220		Siemens	Pneumatic Valve	*VCP-42350260	
591-622C		Siemens	Pneumatic Valve	*VCP-42320260	
591-622C		Siemens	Pneumatic Valve	*VCP-42350260	
591-6230		Siemens	Pneumatic Valve	*VCP-42330260	
591-623C		Siemens	Pneumatic Valve	*VCP-42330260	
591-6240		Siemens	Pneumatic Valve	*VCP-42340260	

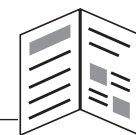


Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
591-624C		Siemens	Pneumatic Valve	*VCP-42340260	
591-6250		Siemens	Pneumatic Valve	*VCP-42340260	
591-625C		Siemens	Pneumatic Valve	*VCP-42340260	
591-6300		Siemens	Pneumatic Valve	*VCP-42310260	
591-630C		Siemens	Pneumatic Valve	*VCP-42310260	
591-6310		Siemens	Pneumatic Valve	*VCP-42320260	
591-6310		Siemens	Pneumatic Valve	*VCP-42350260	
591-631C		Siemens	Pneumatic Valve	*VCP-42320260	
591-631C		Siemens	Pneumatic Valve	*VCP-42350260	
591-6320		Siemens	Pneumatic Valve	*VCP-42330260	
591-632C		Siemens	Pneumatic Valve	*VCP-42330260	
591-6330		Siemens	Pneumatic Valve	*VCP-42340260	
591-633C		Siemens	Pneumatic Valve	*VCP-42340260	
591-6340		Siemens	Pneumatic Valve	*VCP-42350260	
591-634C		Siemens	Pneumatic Valve	*VCP-42350260	
591-6350		Siemens	Pneumatic Valve	*VCP-42360260	
591-635C		Siemens	Pneumatic Valve	*VCP-42360260	
591-6430		Siemens	Pneumatic Valve	*VCP-42320260	
591-643C		Siemens	Pneumatic Valve	*VCP-42320260	
591-6440		Siemens	Pneumatic Valve	*VCP-42330260	
591-644D		Siemens	Pneumatic Valve	*VCP-42330260	
591-6450		Siemens	Pneumatic Valve	*VCP-42340260	
591-645C		Siemens	Pneumatic Valve	*VCP-42340260	
591-6460		Siemens	Pneumatic Valve	*VCP-42350260	
591-646C		Siemens	Pneumatic Valve	*VCP-42350260	
591-6470		Siemens	Pneumatic Valve	*VCP-42360260	
591-647C		Siemens	Pneumatic Valve	*VCP-42360260	
591-6540		Siemens	Pneumatic Valve	*VCP-52701270	
591-654C		Siemens	Pneumatic Valve	*VCP-52701270	
591-6550		Siemens	Pneumatic Valve	*VCP-52711270	
591-655C		Siemens	Pneumatic Valve	*VCP-52711270	
591-6560		Siemens	Pneumatic Valve	*VCP-52721710	
591-656C		Siemens	Pneumatic Valve	*VCP-52721710	
591-6600		Siemens	Pneumatic Valve	*VCP-43310260	
591-660E		Siemens	Pneumatic Valve	*VCP-43310260	
591-6610		Siemens	Pneumatic Valve	*VCP-43320260	
591-661E		Siemens	Pneumatic Valve	*VCP-43320260	
591-6620		Siemens	Pneumatic Valve	*VCP-43330260	
591-662D		Siemens	Pneumatic Valve	*VCP-43330260	
591-6630		Siemens	Pneumatic Valve	*VCP-43340260	
591-663D		Siemens	Pneumatic Valve	*VCP-43340260	
591-6640		Siemens	Pneumatic Valve	*VCP-43350260	
591-664D		Siemens	Pneumatic Valve	*VCP-43350260	
591-6650		Siemens	Pneumatic Valve	*VCP-43360260	
591-665D		Siemens	Pneumatic Valve	*VCP-43360260	
591-6660		Siemens	Pneumatic Valve	*VCP-43310260	
591-666E		Siemens	Pneumatic Valve	*VCP-43310260	
591-6670		Siemens	Pneumatic Valve	*VCP-43320260	
591-667E		Siemens	Pneumatic Valve	*VCP-43320260	
591-6680		Siemens	Pneumatic Valve	*VCP-43330260	
591-668D		Siemens	Pneumatic Valve	*VCP-43330260	
591-6690		Siemens	Pneumatic Valve	*VCP-43340260	
591-669D		Siemens	Pneumatic Valve	*VCP-43340260	
591-6700		Siemens	Pneumatic Valve	*VCP-43350260	
591-670D		Siemens	Pneumatic Valve	*VCP-43350260	
591-6710		Siemens	Pneumatic Valve	*VCP-43360260	
591-671D		Siemens	Pneumatic Valve	*VCP-43360260	
591-6720		Siemens	Pneumatic Valve	*VCP-53621270	
591-672B		Siemens	Pneumatic Valve	*VCP-53621270	
591-6730		Siemens	Pneumatic Valve	*VCP-53631270	
591-673B		Siemens	Pneumatic Valve	*VCP-53621270	
591-6740		Siemens	Pneumatic Valve	*VCP-53641710	
591-674B		Siemens	Pneumatic Valve	*VCP-53631710	
591-6750		Siemens	Pneumatic Valve	*VCP-53621270	
591-675B		Siemens	Pneumatic Valve	*VCP-53621270	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
591-6760		Siemens	Pneumatic Valve	*VCP-53631270	
591-676B		Siemens	Pneumatic Valve	*VCP-53631270	
591-6770		Siemens	Pneumatic Valve	*VCP-53641710	
591-677B		Siemens	Pneumatic Valve	*VCP-43350260	
591-7250		Siemens	Pneumatic Valve	*VCP-53641710	
591-7260		Siemens	Pneumatic Valve	*VCP-53651710	
591-7260		Siemens	Pneumatic Valve	*VCP-53661710	
591-7850		Siemens	Pneumatic Valve	*VCP-41320260	
591-7851		Siemens	Pneumatic Valve	*VCP-41320260	
591-7852		Siemens	Pneumatic Valve	*VCP-41330260	
591-7853		Siemens	Pneumatic Valve	*VCP-41330260	
591-7854		Siemens	Pneumatic Valve	*VCP-41340260	
591-7855		Siemens	Pneumatic Valve	*VCP-41340260	
591-7856		Siemens	Pneumatic Valve	*VCP-41350260	
591-7857		Siemens	Pneumatic Valve	*VCP-41350260	
591-7858		Siemens	Pneumatic Valve	*VCP-41360260	
591-7859		Siemens	Pneumatic Valve	*VCP-41360260	
591-7860		Siemens	Pneumatic Valve	*VCP-42320260	
591-7861		Siemens	Pneumatic Valve	*VCP-42320260	
591-7862		Siemens	Pneumatic Valve	*VCP-42330260	
591-7863		Siemens	Pneumatic Valve	*VCP-42330260	
591-7864		Siemens	Pneumatic Valve	*VCP-42340260	
591-7865		Siemens	Pneumatic Valve	*VCP-42340260	
591-7866		Siemens	Pneumatic Valve	*VCP-42350260	
591-7867		Siemens	Pneumatic Valve	*VCP-42350260	
591-7870		Siemens	Pneumatic Valve	*VCP-41320260	
591-7871		Siemens	Pneumatic Valve	*VCP-41330260	
591-7872		Siemens	Pneumatic Valve	*VCP-41340260	
591-7873		Siemens	Pneumatic Valve	*VCP-41350260	
591-7874		Siemens	Pneumatic Valve	*VCP-41360260	
591-7875		Siemens	Pneumatic Valve	*VCP-42320260	
591-7876		Siemens	Pneumatic Valve	*VCP-42330260	
591-7877		Siemens	Pneumatic Valve	*VCP-42340260	
591-7878		Siemens	Pneumatic Valve	*VCP-42350260	
591-7879		Siemens	Pneumatic Valve	*VCP-42360260	
591-7891		Siemens	Pneumatic Valve	*VCP-51733720	
591-7892		Siemens	Pneumatic Valve	*VCP-51743720	
591-7893		Siemens	Pneumatic Valve	*VCP-52733710	
591-7894		Siemens	Pneumatic Valve	*VCP-52743710	
591-8019		Siemens	Pneumatic Valve	*VCP-52721710	
591-8020		Siemens	Pneumatic Valve	*VCP-51721710	
591-8021		Siemens	Pneumatic Valve	*VCP-52721710	
591-8022		Siemens	Pneumatic Valve	*VCP-51733720	
591-8023		Siemens	Pneumatic Valve	*VCP-52733710	
591-8024		Siemens	Pneumatic Valve	*VCP-51743720	
591-8028		Siemens	Pneumatic Valve	*VCP-53621710	
591-8029		Siemens	Pneumatic Valve	*VCP-53631710	
591-8030		Siemens	Pneumatic Valve	*VCP-53641710	
591-8071		Siemens	Pneumatic Valve	*VCP-41310260	
591-8072		Siemens	Pneumatic Valve	*VCP-41320260	
591-8073		Siemens	Pneumatic Valve	*VCP-41330260	
591-8074		Siemens	Pneumatic Valve	*VCP-41340260	
591-8075		Siemens	Pneumatic Valve	*VCP-41350276	
591-8076		Siemens	Pneumatic Valve	*VCP-41360260	
591-8077		Siemens	Pneumatic Valve	*VCP-42310260	
591-8078		Siemens	Pneumatic Valve	*VCP-42320260	
591-8079		Siemens	Pneumatic Valve	*VCP-42330260	
591-8080		Siemens	Pneumatic Valve	*VCP-42340260	
591-8081		Siemens	Pneumatic Valve	*VCP-42350260	
591-8082		Siemens	Pneumatic Valve	*VCP-42360260	
591-8330		Siemens	Pneumatic Valve	*VCP-51701270	
591-8331		Siemens	Pneumatic Valve	*VCP-52701270	
591-8332		Siemens	Pneumatic Valve	*VCP-51711270	
591-8336		Siemens	Pneumatic Valve	*VCP-51701710	
591-8337		Siemens	Pneumatic Valve	*VCP-52701710	

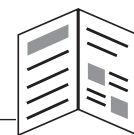


Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
591-8338		Siemens	Pneumatic Valve	*VCP-51711710	
591-8339		Siemens	Pneumatic Valve	*VCP-52721710	
591-8340		Siemens	Pneumatic Valve	*VCP-51721710	
591-8341		Siemens	Pneumatic Valve	*VCP-52721710	
592-6600		Siemens	Pneumatic Valve	*VCP-43310260	
592-6610		Siemens	Pneumatic Valve	*VCP-43320260	
592-6620		Siemens	Pneumatic Valve	*VCP-43330260	
592-6630		Siemens	Pneumatic Valve	*VCP-43340260	
592-6640		Siemens	Pneumatic Valve	*VCP-43350260	
592-6720		Siemens	Pneumatic Valve	*VCP-53621270	
592-6730		Siemens	Pneumatic Valve	*VCP-53631270	
592-7870		Siemens	Pneumatic Valve	*VCP-41320260	
592-7871		Siemens	Pneumatic Valve	*VCP-41330260	
592-7872		Siemens	Pneumatic Valve	*VCP-41340260	
592-7873		Siemens	Pneumatic Valve	*VCP-41350260	
592-7874		Siemens	Pneumatic Valve	*VCP-41360260	
592-7875		Siemens	Pneumatic Valve	*VCP-42320260	
592-7876		Siemens	Pneumatic Valve	*VCP-42330260	
592-7877		Siemens	Pneumatic Valve	*VCP-42340260	
592-7878		Siemens	Pneumatic Valve	*VCP-42350260	
592-7879		Siemens	Pneumatic Valve	*VCP-42360260	
592-8020		Siemens	Pneumatic Valve	*VCP-51721710	
592-8028		Siemens	Pneumatic Valve	*VCP-53621710	
592-8029		Siemens	Pneumatic Valve	*VCP-53631710	
592-8030		Siemens	Pneumatic Valve	*VCP-53641710	
592-8071		Siemens	Pneumatic Valve	*VCP-41310260	
592-8072		Siemens	Pneumatic Valve	*VCP-41320260	
592-8073		Siemens	Pneumatic Valve	*VCP-41330260	
592-8074		Siemens	Pneumatic Valve	*VCP-41340260	
592-8075		Siemens	Pneumatic Valve	*VCP-41350260	
592-8076		Siemens	Pneumatic Valve	*VCP-41360260	
592-8077		Siemens	Pneumatic Valve	*VCP-42310260	
592-8078		Siemens	Pneumatic Valve	*VCP-42320260	
592-8079		Siemens	Pneumatic Valve	*VCP-42330260	
592-8080		Siemens	Pneumatic Valve	*VCP-42340260	
592-8082		Siemens	Pneumatic Valve	*VCP-42360260	
592-8330		Siemens	Pneumatic Valve	*VCP-51701270	
592-8331		Siemens	Pneumatic Valve	*VCP-52701270	
592-8332		Siemens	Pneumatic Valve	*VCP-51711270	
592-8336		Siemens	Pneumatic Valve	*VCP-51701710	
592-8337		Siemens	Pneumatic Valve	*VCP-52701710	
592-8338		Siemens	Pneumatic Valve	*VCP-51711710	
592-8339		Siemens	Pneumatic Valve	*VCP-52711710	
592-8340		Siemens	Pneumatic Valve	*VCP-51721710	
592-8341		Siemens	Pneumatic Valve	*VCP-52721710	
593-8342		Siemens	Pneumatic Valve	*VCP-51731710	
593-8344		Siemens	Pneumatic Valve	*VCP-51741710	
593-8360		Siemens	Pneumatic Valve	*VCP-51733720	
593-8362		Siemens	Pneumatic Valve	*VCP-51743720	
593-8412		Siemens	Pneumatic Valve	*VCP-53651710	
593-8413		Siemens	Pneumatic Valve	*VCP-53661710	
594-8342		Siemens	Pneumatic Valve	*VCP-51731710	
594-8343		Siemens	Pneumatic Valve	*VCP-52731710	
594-8344		Siemens	Pneumatic Valve	*VCP-51741710	
594-8345		Siemens	Pneumatic Valve	*VCP-52741710	
594-8361		Siemens	Pneumatic Valve	*VCP-52733710	
594-8363		Siemens	Pneumatic Valve	*VCP-52743710	
594-8412		Siemens	Pneumatic Valve	*VCP-53651710	
594-8413		Siemens	Pneumatic Valve	*VCP-53661710	
598-0001		Siemens	Electric Valve	*VEP-58701945 / VEB-4310DBCK (0-10 VDC)	
598-0002		Siemens	Electric Valve	*VEP-58701675 / VEB-4310DBDL	
598-0003		Siemens	Electric Valve	*VEP-58701675 / VEB-4310DBDL	
598-0004		Siemens	Electric Valve	*VEP-58711945 / VEB-4312DBCK	
598-0005		Siemens	Electric Valve	*VEP-58711675 / VEB-4312DBDL	
598-0006		Siemens	Electric Valve	*VEP-58711675 / VEB-4312DBDL	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
598-0007		Siemens	Electric Valve	*VEP-58721A45 / VEB-5316DSFK	
598-0009		Siemens	Electric Valve	*VEP-58721A45 / VEB-5316DSFK	
598-0011		Siemens	Electric Valve	*VEP-45320875 / VEG-4303DRDL	
598-0012		Siemens	Electric Valve	*VEP-45320886 / VEG-4303DRDH	
598-0014		Siemens	Electric Valve	*VEP-45330875 / VEG-4304CRFL	
598-0015		Siemens	Electric Valve	*VEP-45330886 / VEG-4304CRFH	
598-0017		Siemens	Electric Valve	*VEP-45340875 / VEG-4305ARFL	
598-0018		Siemens	Electric Valve	*VEP-45340886 / VEG-4305ARFH	
598-0020		Siemens	Electric Valve	*VEP-45350875 / VEG-4306ARFL	
598-0021		Siemens	Electric Valve	*VEP-45350886 / VEG-4306ARFH	
598-0023		Siemens	Electric Valve	*VEP-45360875 / VEG-4308ARFL	
598-0024		Siemens	Electric Valve	*VEP-45360886 / VEG-4308ARFH	
598-0025		Siemens	Electric Valve	*VEP-45310845 / VEG-4302JREK	
598-0026		Siemens	Electric Valve	*VEP-45310875 / VEG-4302JRDL	
598-0028		Siemens	Electric Valve	*VEP-45320845 / VEG-4303DREK	
598-0029		Siemens	Electric Valve	*VEP-45320875 / VEG-4303DRDL	
598-0031		Siemens	Electric Valve	*VEP-45330845 / VEG-4304CRFK	
598-0032		Siemens	Electric Valve	*VEP-45330875 / VEG-4304CRFL	
598-0034		Siemens	Electric Valve	*VEP-45340845 / VEG-4305ARFK	
598-0035		Siemens	Electric Valve	*VEP-45340875 / VEG-4305ARFL	
598-0037		Siemens	Electric Valve	*VEP-45350845 / VEG-4306ARFK	
598-0038		Siemens	Electric Valve	*VEP-45350875 / VEG-4306ARFL	
598-0040		Siemens	Electric Valve	*VEP-45360845 / VEG-4308ARFK	
598-0041		Siemens	Electric Valve	*VEP-45360875 / VEG-4308ARFL	
598-0043		Siemens	Electric Valve	*VEP-43310845 / VEG-4502JREK	
598-0044		Siemens	Electric Valve	*VEP-43310875 / VEG-4502JRDL	
598-0045		Siemens	Electric Valve	*VEP-43320845 / VEG-4503JREK	
598-0046		Siemens	Electric Valve	*VEP-43320875 / VEG-4503JRDL	
598-0047		Siemens	Electric Valve	*VEP-43330845 / VEG-4504CRFK	
598-0048		Siemens	Electric Valve	*VEP-43330875 / VEG-4504CRFL	
598-0049		Siemens	Electric Valve	*VEP-43340845 / VEG-4505ARFK	
598-0050		Siemens	Electric Valve	*VEP-43340875 / VEG-4505ARFL	
598-0051		Siemens	Electric Valve	*VEP-43350845 / VEG-4506ARFK	
598-0052		Siemens	Electric Valve	*VEP-43350875 / VEG-4506ARFL	
598-0053		Siemens	Electric Valve	*VEP-43360845 / VEG-4508ARFK	
598-0054		Siemens	Electric Valve	*VEP-43360875 / VEG-4508ARFL	
598-0055		Siemens	Electric Valve	*VEP-53621945 / VEB-4610EBCK (0-10 VDC)	
598-0056		Siemens	Electric Valve	*VEP-53621675 / VEB-4610EBDL	
598-0057		Siemens	Electric Valve	*VEP-53631945 / VEB-4610FBCK (0-10 VDC)	
598-0058		Siemens	Electric Valve	*VEP-53631675 / VEB-4610FBDL	
598-0059		Siemens	Electric Valve	*VEP-53641A45 / VEB-5616DSFK (0-10 VDC)	
598-0060		Siemens	Electric Valve	*VEP-53641A45 / VEB-5616DSFK (0-10 VDC)	
598-2004		Siemens	Electric Valve	*VEP-45320875 / VEG-4303DRDL	
598-2005		Siemens	Electric Valve	*VEP-45320875 / VEG-4303DRDL	
598-2007		Siemens	Electric Valve	*VEP-45330875 / VEG-4304CRFL	
598-2008		Siemens	Electric Valve	*VEP-45330875 / VEG-4304CRFL	
598-2010		Siemens	Electric Valve	*VEP-45340875 / VEG-4305ARFL	
598-2011		Siemens	Electric Valve	*VEP-45340875 / VEG-4305ARFL	
598-2013		Siemens	Electric Valve	*VEP-45350875 / VEG-4306ARFL	
598-2014		Siemens	Electric Valve	*VEP-45350875 / VEG-4306ARFL	
598-2016		Siemens	Electric Valve	*VEP-45360875 / VEG-4308ARFL	
598-2017		Siemens	Electric Valve	*VEP-45360875 / VEG-4308ARFL	
598-2018		Siemens	Electric Valve	*VEP-58701945 / VEB-4310DBCK (0-10 VDC)	
598-2019		Siemens	Electric Valve	*VEP-58701675 / VEB-4310DBDL	
598-2020		Siemens	Electric Valve	*VEP-58701675 / VEB-4310DBDL	
598-2021		Siemens	Electric Valve	*VEP-58711945 / VEB-4312DBCK (0-10 VDC)	
598-2022		Siemens	Electric Valve	*VEP-58711675 / VEB-4312DBDL	
598-2023		Siemens	Electric Valve	*VEP-58711675 / VEB-4312DBDL	
598-2024		Siemens	Electric Valve	*VEP-58721A45 / VEB-5316DSFK	
598-2025		Siemens	Electric Valve	*VEP-58721A45 / VEB-5316DSFK	
598-2026		Siemens	Electric Valve	*VEP-58721A45 / VEB-5316DSFK	
598-2027		Siemens	Electric Valve	*VEP-58701945 / VEB-4310DBCK (0-10 VDC)	
598-2028		Siemens	Electric Valve	*VEP-58701675 / VEB-4310DBDL	
598-2029		Siemens	Electric Valve	*VEP-58701675 / VEB-4310DBDL	
598-2030		Siemens	Electric Valve	*VEP-58711945 / VEB-4312DBCK (0-10 VDC)	

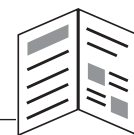


Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
598-2031		Siemens	Electric Valve	*VEP-58711675 / VEB-4312DBDL	
598-2032		Siemens	Electric Valve	*VEP-58711675 / VEB-4312DBDL	
598-2033		Siemens	Electric Valve	*VEP-58721A45 / VEB-5316DSFK	
598-2034		Siemens	Electric Valve	*VEP-58721A45 / VEB-5316DSFK	
598-2035		Siemens	Electric Valve	*VEP-58721A45 / VEB-5316DSFK	
598-2054		Siemens	Electric Valve	*VEP-58702945 / VEB-4310DBCK (0–10 VDC)	
598-2055		Siemens	Electric Valve	*VEP-58702695	
598-2056		Siemens	Electric Valve	*VEP-58702695	
598-2057		Siemens	Electric Valve	*VEP-58712945 / VEB-4312DBCK (0–10 VDC)	
598-2058		Siemens	Electric Valve	*VEP-58712695	
598-2059		Siemens	Electric Valve	*VEP-58712695	
598-2060		Siemens	Electric Valve	*VEP-58722A45 / VEB-5316DSFK (0–10 VDC)	
598-2061		Siemens	Electric Valve	*VEP-58722A45 / VEB-5316DSFK (0–10 VDC)	
598-2062		Siemens	Electric Valve	*VEP-58722A45 / VEB-5316DSFK (0–10 VDC)	
598-2063		Siemens	Electric Valve	*VEP-45310845	
598-2064		Siemens	Electric Valve	*VEP-45310875	
598-2065		Siemens	Electric Valve	*VEP-45310845	
598-2066		Siemens	Electric Valve	*VEP-45320845	
598-2067		Siemens	Electric Valve	*VEP-45320875	
598-2068		Siemens	Electric Valve	*VEP-45320845	
598-2069		Siemens	Electric Valve	*VEP-45330845	
598-2070		Siemens	Electric Valve	*VEP-45330875	
598-2072		Siemens	Electric Valve	*VEP-45340845	
598-2074		Siemens	Electric Valve	*VEP-45340845	
598-2075		Siemens	Electric Valve	*VEP-45350845	
598-2076		Siemens	Electric Valve	*VEP-45340875	
598-2077		Siemens	Electric Valve	*VEP-45350845	
598-2078		Siemens	Electric Valve	*VEP-45360845	
598-2079		Siemens	Electric Valve	*VEP-45350875	
598-2080		Siemens	Electric Valve	*VEP-45360845	
598-2081		Siemens	Electric Valve	*VEP-58703945 / VEB-4310DBCK (0–10 VDC)	
598-2082		Siemens	Electric Valve	*VEP-58703695	
598-2084		Siemens	Electric Valve	*VEP-58703695	
598-2085		Siemens	Electric Valve	*VEP-58713945 / VEB-4312DBCK (0–10 VDC)	
598-2086		Siemens	Electric Valve	*VEP-58713695	
598-2087		Siemens	Electric Valve	*VEP-58713695	
598-2088		Siemens	Electric Valve	*VEP-58723A45 / VEB-5316DSFK (0–10 VDC)	
598-2089		Siemens	Electric Valve	*VEP-58723A45 / VEB-5316DSFK (0–10 VDC)	
598-2090		Siemens	Electric Valve	*VEP-58723A45 / VEB-5316DSFK (0–10 VDC)	
598-2092		Siemens	Electric Valve	*VEP-45330875	
598-2093		Siemens	Electric Valve	*VEP-45330875	
598-2095		Siemens	Electric Valve	*VEP-45340875	
598-2096		Siemens	Electric Valve	*VEP-45340875	
598-2098		Siemens	Electric Valve	*VEP-45350875	
598-2099		Siemens	Electric Valve	*VEP-45350875	
598-2101		Siemens	Electric Valve	*VEP-45360875	
598-2102		Siemens	Electric Valve	*VEP-45360875	
598-2103		Siemens	Electric Valve	*VEP-45330845	
598-2105		Siemens	Electric Valve	*VEP-45330845	
598-2106		Siemens	Electric Valve	*VEP-45340845	
598-2107		Siemens	Electric Valve	*VEP-45340875	
598-2108		Siemens	Electric Valve	*VEP-45340845	
598-2109		Siemens	Electric Valve	*VEP-45350845	
598-2110		Siemens	Electric Valve	*VEP-45340875	
598-2111		Siemens	Electric Valve	*VEP-45350845	
598-2112		Siemens	Electric Valve	*VEP-45360845	
598-2113		Siemens	Electric Valve	*VEP-45350875	
598-2168		Siemens	Electric Valve	*VEP-45360845	
598-2169		Siemens	Electric Valve	*VEP-43310845	
598-2170		Siemens	Electric Valve	*VEP-43310875	
598-2171		Siemens	Electric Valve	*VEP-43320845	
598-2172		Siemens	Electric Valve	*VEP-43320875	
598-2173		Siemens	Electric Valve	*VEP-43330845	
598-2174		Siemens	Electric Valve	*VEP-43340845	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
598-2175		Siemens	Electric Valve	*VEP-43340875	
598-2176		Siemens	Electric Valve	*VEP-43350845	
598-2177		Siemens	Electric Valve	*VEP-43350875	
598-2179		Siemens	Electric Valve	*VEP-43350875	
598-2180		Siemens	Electric Valve	*VEP-53622945 / VEB-4610EBCK (0–10 VDC)	
598-2181		Siemens	Electric Valve	*VEP-53622675 / VEB-4610EBDL	
598-2182		Siemens	Electric Valve	*VEP-53632945 / VEB-4610FBCK (0–10 VDC)	
598-2183		Siemens	Electric Valve	*VEP-53632675 / VEB-4610FBDL	
598-2185		Siemens	Electric Valve	*VEP-53642A45 / VEB-5616DSFK (0–10 VDC)	
598-2186		Siemens	Electric Valve	*VEP-53621945 / VEB-4610EBCK (0–10 VDC)	
598-2187		Siemens	Electric Valve	*VEP-53621675 / VEB-4610EBDL	
598-2188		Siemens	Electric Valve	*VEP-53631945 / VEB-4610FBCK (0–10 VDC)	
598-2189		Siemens	Electric Valve	*VEP-53631675 / VEB-4610FBDL	
598-2190		Siemens	Electric Valve	*VEP-53641A45 / VEB-5616DSFK (0–10 VDC)	
598-2191		Siemens	Electric Valve	*VEP-53641A45 / VEB-5616DSFK (0–10 VDC)	
598-5001		Siemens	Electric Valve	*VEP-58701945 / VEB-4310DBCK (0–10 VDC)	
598-5002		Siemens	Electric Valve	*VEP-58701675 / VEB-4310DBDL	
598-5003		Siemens	Electric Valve	*VEP-58701675 / VEB-4310DBDL	
598-5004		Siemens	Electric Valve	*VEP-58711945 / VEB-4312DBCK (0–10 VDC)	
598-5005		Siemens	Electric Valve	*VEP-58711675 / VEB-4312DBDL	
598-5006		Siemens	Electric Valve	*VEP-58711675 / VEB-4312DBDL	
598-5007		Siemens	Electric Valve	*VEP-58721A45 / VEB-5316DSFK (0–10 VDC)	
598-5008		Siemens	Electric Valve	*VEP-58721A45 / VEB-5316DSFK (0–10 VDC)	
598-5009		Siemens	Electric Valve	*VEP-58721A45 / VEB-5316DSFK (0–10 VDC)	
598-5010		Siemens	Electric Valve	*VEP-43350845	
598-5011		Siemens	Electric Valve	*VEP-45320875	
598-5012		Siemens	Electric Valve	*VEP-45320886	
598-5014		Siemens	Electric Valve	*VEP-45330875	
598-5015		Siemens	Electric Valve	*VEP-45330886	
598-5017		Siemens	Electric Valve	*VEP-45340875	
598-5018		Siemens	Electric Valve	*VEP-45340886	
598-5020		Siemens	Electric Valve	*VEP-45350875	
598-5021		Siemens	Electric Valve	*VEP-45350886	
598-5023		Siemens	Electric Valve	*VEP-45360875	
598-5024		Siemens	Electric Valve	*VEP-45360886	
598-5025		Siemens	Electric Valve	*VEP-45310845	
598-5026		Siemens	Electric Valve	*VEP-45310875	
598-5028		Siemens	Electric Valve	*VEP-45320845	
598-5029		Siemens	Electric Valve	*VEP-45320875	
598-5031		Siemens	Electric Valve	*VEP-45330845	
598-5032		Siemens	Electric Valve	*VEP-45330875	
598-5034		Siemens	Electric Valve	*VEP-45340845	
598-5035		Siemens	Electric Valve	*VEP-45340875	
598-5037		Siemens	Electric Valve	*VEP-45350845	
598-5038		Siemens	Electric Valve	*VEP-45350875	
598-5040		Siemens	Electric Valve	*VEP-45360845	
598-5041		Siemens	Electric Valve	*VEP-45360875	
598-5043		Siemens	Electric Valve	*VEP-43310845	
598-5044		Siemens	Electric Valve	*VEP-43310875	
598-5045		Siemens	Electric Valve	*VEP-43320845	
598-5046		Siemens	Electric Valve	*VEP-43320875	
598-5047		Siemens	Electric Valve	*VEP-43330845	
598-5048		Siemens	Electric Valve	*VEP-43330875	
598-5049		Siemens	Electric Valve	*VEP-43340845	
598-5050		Siemens	Electric Valve	*VEP-43340875	
598-5052		Siemens	Electric Valve	*VEP-43350875	
598-5053		Siemens	Electric Valve	*VEP-43360845	
598-5054		Siemens	Electric Valve	*VEP-43360875	
598-5055		Siemens	Electric Valve	*VEP-53621945 / VEB-4610EBCK (0–10 VDC)	
598-5056		Siemens	Electric Valve	*VEP-53621675	
598-5057		Siemens	Electric Valve	*VEP-53631945	
598-5058		Siemens	Electric Valve	*VEP-53631675	
598-5059		Siemens	Electric Valve	*VEP-53641A45	
598-5060		Siemens	Electric Valve	*VEP-53641A45	

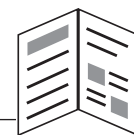


Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
6xxxxx					
656-0002		Siemens	Pneumatic Valve	*VCP-61290231	
656-0004		Siemens	Pneumatic Valve	*VCP-61270231	
656-0009		Siemens	Pneumatic Valve	*VCP-63300234	
656-0010		Siemens	Pneumatic Valve	*VCP-63300231	
656-0011		Siemens	Pneumatic Valve	*VCP-63280231	
656-0012		Siemens	Pneumatic Valve	*VCP-62290231	
657-524		Siemens	Pneumatic Valve	*VCP-41310251	
657-525		Siemens	Pneumatic Valve	*VCP-41310251	
657-526		Siemens	Pneumatic Valve	*VCP-41310251	
657-527		Siemens	Pneumatic Valve	*VCP-41310251	
657-656A		Siemens	Pneumatic Valve	*VCP-43330251	
657-657A		Siemens	Pneumatic Valve	*VCP-43310251	
657-658A		Siemens	Pneumatic Valve	*VCP-43320251	
657-730A		Siemens	Pneumatic Valve	*VCP-43340251	
657-758		Siemens	Pneumatic Valve	*VCP-41310251	
657-7580		Siemens	Pneumatic Valve	*VCP-41310251	
657-759		Siemens	Pneumatic Valve	*VCP-41310251	
657-7590		Siemens	Pneumatic Valve	*VCP-41310251	
657-760		Siemens	Pneumatic Valve	*VCP-41310251	
657-7600		Siemens	Pneumatic Valve	*VCP-41310251	
657-761		Siemens	Pneumatic Valve	*VCP-41310251	
657-7610		Siemens	Pneumatic Valve	*VCP-41310251	
657-768		Siemens	Pneumatic Valve	*VCP-43310251	
657-7680		Siemens	Pneumatic Valve	*VCP-43310251	
657-769		Siemens	Pneumatic Valve	*VCP-43320251	
657-7690		Siemens	Pneumatic Valve	*VCP-43320251	
657-770		Siemens	Pneumatic Valve	*VCP-43330251	
657-7700		Siemens	Pneumatic Valve	*VCP-43330251	
657-771		Siemens	Pneumatic Valve	*VCP-43340251	
657-7710		Siemens	Pneumatic Valve	*VCP-43340251	
657-8203		Siemens	Pneumatic Valve	*VCP-41310251	
657-8204		Siemens	Pneumatic Valve	*VCP-41310251	
657-8205		Siemens	Pneumatic Valve	*VCP-41310251	
657-8206		Siemens	Pneumatic Valve	*VCP-41310251	
657-8224		Siemens	Pneumatic Valve	*VCP-43310251	
657-8225		Siemens	Pneumatic Valve	*VCP-43320251	
657-8226		Siemens	Pneumatic Valve	*VCP-43330251	
658-0013		Siemens	Pneumatic Valve	*VCP-41340251	
658-0026		Siemens	Pneumatic Valve	*VCP-43310251	
658-0027		Siemens	Pneumatic Valve	*VCP-43310251	
658-0033		Siemens	Pneumatic Valve	*VCP-43340251	
658-0100		Siemens	Pneumatic Valve	*VCP-41310251	
7xxxxx					
786-0600		Siemens	Selector/Diverting Switch	YMC-2001	
786-0610		Siemens	Selector/Diverting Switch	YMC-3001	
8xxxxx					
804190E		Honeywell	Receiver Gauge	ICI-3102	
832-0450		Siemens	Pneumatic Room Thermostat	CTC-1621	
832-0460		Siemens	Pneumatic Room Thermostat	CTC-1621	
832-0490		Siemens	Pneumatic Room Thermostat	CTC-1621	
832-0500		Siemens	Pneumatic Room Themostat	CTC-1621	
832-1010		Siemens	Pneumatic Room Themostat	CTC-1621	
832-1020		Siemens	Pneumatic Room Themostat	CTC-1621	
832-1030		Siemens	Pneumatic Room Themostat	CTC-1621	
832-1070		Siemens	Pneumatic Room Themostat	CTC-1621	
832-1090		Siemens	Pneumatic Room Themostat	CTC-1621	
832-1100		Siemens	Pneumatic Room Themostat	CTC-1621	
832-1110		Siemens	Pneumatic Room Themostat	CTC-1621	
832-1150		Siemens	Pneumatic Room Themostat	CTC-1643	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
9xxxxx					
908-048		Siemens	Pressure Reducing Valves	HAO-1021	
Axxxxx					
A11A-1		Johnson	Low Temp. Thermostat	CTE-3007	
A11B-1		Johnson	Low Temp. Thermostat	CTE-3006	
A1H250/1		Staefa/UPC	Electric Damper Actuator	MEP-7503	CME-7002
A25AN-1		Johnson	High Temp. Limit Thermostat	CTE-6001	
A-4000-138		Johnson	Pressure Reducing Valve	HAO-1021	
A-4000-139		Johnson	Pressure Reducing Valves	HAO-1021	
A40EA-1		Johnson	High/Low Temp. Thermostat	CTC-4101	
A70HA-1		Johnson	High/Low Temp. Thermostat	CTC-4101	
AF24-SR US		Belimo	Electric Damper Actuator	MEP-7052	
AFR24-3 US		Belimo	Electric Damper Actuator	MEP-7551	
AK-40613		Invensys	Reverse-Acting Relay	RCC-1504	
AK-50613		Invensys	Reverse-Acting Relay	RCC-1504	
AKS-9022		Invensys	Receiver Gauge	ICI-3102	
AL-100		Invensys	EP Switch	VEC-1021	
AL-109		Invensys	EP Switch	VEC-1012	
AL-110		Invensys	EP Switch	VEC-1022	
AL-120		Invensys	EP Switch	VEC-1026	
AL-125		Invensys	EP Switch	VEC-1023	
AL-140		Invensys	EP Switch	VEC-1032	
AL-170		Invensys	EP Switch	VEC-1011	
AL-171		Invensys	EP Switch	VEC-1012	
AL-180		Invensys	EP Switch	VEC-1021	
AL-181		Invensys	EP Switch	VEC-1022	
AL-182		Invensys	EP Switch	VEC-1026	
AL-183		Invensys	EP Switch	VEC-1023	
AL-185		Invensys	EP Switch	VEC-1033	
AL242		Invensys	Reverse-Acting Relay	RCC-1504	
AL-282		Invensys	High Pressure Selector	RCC-1108	
AL-99		Invensys	EP Switch	VEC-1011	
AM24		Belimo	Electric Damper Actuator	MEP-7501	
AM24-S US		Belimo	Electric Damper Actuator	MEP-7502	CME-7002
AM24-SR		Belimo	Electric Damper Actuator	MEP-7502	
ARR-262		Honeywell	Pressure Reducing Valve	HAO-1001	
AS1D30		Staefa/UPC	Electric Damper Actuator	MEP-7801	
ASU1D30		Staefa/UPC	Electric Damper Actuator	MEP-7802	
Bxxxxx					
B209B	LR24	Belimo	Electric Ball Valve	*VEP-45A2B926 / VEB-4302DBCf	
B210B	LF24-SR	Belimo	Electric Ball Valve	*VEP-45A3B895	
B211B	LR24	Belimo	Electric Ball Valve	*VEP-45A3B926	
B212B	LF24-SR	Belimo	Electric Ball Valve	*VEP-45A4B895	
B213B	LR24	Belimo	Electric Ball Valve	*VEP-45A5B926	
B214B	LF24-SR	Belimo	Electric Ball Valve	*VEP-45B4B895	
B215B	LR24	Belimo	Electric Ball Valve	*VEP-45A6B926	
B217B	AF24-SR	Belimo	Electric Ball Valve	*VEP-45B4B895	
B218B	LR24	Belimo	Electric Ball Valve	*VEP-45B4B926	
B219B	NF24-SR	Belimo	Electric Ball Valve	*VEP-45B4B895	
B222B	LR24	Belimo	Electric Ball Valve	*VEP-45C1B926	
B223B	NF24-SR	Belimo	Electric Ball Valve	*VEP-45C1B895	
B224B	LR24	Belimo	Electric Ball Valve	*VEP-45C3B926	
B229B	NF24-SR	Belimo	Electric Ball Valve	*VEP-45D1B895	
B230B	LR24	Belimo	Electric Ball Valve	*VEP-45D1B926	
B231B	NF24-SR	Belimo	Electric Ball Valve	*VEP-45D2B895	
B232B	AM24	Belimo	Electric Ball Valve	*VEP-45D2B926	



Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
B238B	NF24-SR	Belimo	Electric Ball Valve	*VEP-45E1B895	
B239B	NM24	Belimo	Electric Ball Valve	*VEP-45E1B926	
B240B	NF24-SR	Belimo	Electric Ball Valve	*VEP-45E2B895	
B248B	AM24	Belimo	Electric Ball Valve	*VEP-45F1B926	
B249B	AF24-SR	Belimo	Electric Ball Valve	*VEP-45F1B895	
B250B	AM24	Belimo	Electric Ball Valve	*VEP-45F2B926	
Cxxxxx					
C-208-2		Johnson	Reverse-Acting Relay	RCC-1504	
C-2220		Johnson	High/Low Signal Selector Relay	RCC-1111	
C-5226		Johnson	High Pressure Selector	RCC-1108	
C-522603		Johnson	Low Pressure Selector	RCC-1106	
C-5226-3		Johnson	Low Pressure Selector	RCC-1106	
C-5226-4		Johnson	High Pressure Selector	RCC-1108	
CEP-1000 Series		KMC	Electronic VAV Controllers	CEP-4000 Series	Replace REE Relays
CEP-3000 Series		KMC	Electronic VAV Controllers	CEP-4000 Series	Replace REE Relays
CLEAFS405		Honeywell	Diff. Static Press. Air Flow Switch	CSE-1103	
Dxxxxx					
D-3062		Johnson	Pneumatic Damper Actuator	MCP-1020-5311	
D-3062-1		Johnson	Pneumatic Damper Actuator	MCP-1030-8108	
D-3062-2		Johnson	Pneumatic Damper Actuator	MCP-1030-3108	
D-3062-3		Johnson	Pneumatic Damper Actuator	MCP-1030-5108	
D-3073-1		Johnson	Pneumatic Damper Actuator	MCP-1130-1520	
D-3073-2		Johnson	Pneumatic Damper Actuator	MCP-1130-5520	
D-3073-3		Johnson	Pneumatic Damper Actuator	MCP-1130-3520	
D-3153-1		Johnson	Pneumatic Damper Actuator	MCP-5160-9111	
D-3153-2		Johnson	Pneumatic Damper Actuator	MCP-5160-9111	
D-3153-4		Johnson	Pneumatic Damper Actuator	MCP-5160-9111	
D-3153-41		Johnson	Pneumatic Damper Actuator	MCP-5160-9111	
D-3153-5		Johnson	Pneumatic Damper Actuator	MCP-5160-9111	
D-3153-6		Johnson	Pneumatic Damper Actuator	MCP-5160-9111	
D-3153-7		Johnson	Pneumatic Damper Actuator	MCP-5160-9111	
D-3703-4		Johnson	Pneumatic Damper Actuator	MCP-1130-1520	
D-3703-5		Johnson	Pneumatic Damper Actuator	MCP-1130-5520	
D-3703-6		Johnson	Pneumatic Damper Actuator	MCP-1130-3520	
D-3703-7		Johnson	Pneumatic Damper Actuator	MCP-8031-8195	
D-4073-1		Johnson	Pneumatic Damper Actuator	MCP-1030-5111	
DG05-2-03 SS	DMS24-140	Delta	Electric Valve	*VEP-45310875	
DG05-3-03	DMS24-140	Delta	Electric Valve	*VEP-43310875	
DG1-2-10 SS	DMS24-140	Delta	Electric Valve	*VEP-45330875	
DG125-3-16	DMS24-140	Delta	Electric Valve	*VEP-43340875	
DG1-3-10	DMS24-140	Delta	Electric Valve	*VEP-43330875	
DG150-3-25	DMS24-140	Delta	Electric Valve	*VEP-43350875	
DG2-2-40	DMS24-140	Delta	Electric Valve	*VEP-45360875	
DG2-3-40	DMS24-140	Delta	Electric Valve	*VEP-43360875	
DG75-3-07	DMS24-140	Delta	Electric Valve	*VEP-43320875	
Exxxxx					
EDA-2040-11		Johnson	Electric Damper Actuator	MEP-4001	
EDA-2040-12		Johnson	Electric Damper Actuator	MEP-4001	
EDA-2040-21		Johnson	Electric Damper Actuator	MEP-4001	
EDA-2040-22		Johnson	Electric Damper Actuator	MEP-4001	
EDA-2040-23		Johnson	Electric Damper Actuator	MEP-4022 (w/ 1 internal aux. switch)	
EDA-2040-24		Johnson	Electric Damper Actuator	MEP-4022 (w/ 1 internal aux. switch)	
EM402-102		Staefa/UPC	Electric Damper Actuator	MEP-4001	
EMT402-102		Staefa/UPC	Electric Damper Actuator	MEP-4001	
EMT402-302		Staefa/UPC	Electric Damper Actuator	MEP-4001	
EP-8000-2		Johnson	Elec.-Pressure Transducer	XEC-3002	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
Gxxxxx					
G-2010-302		Johnson	Receiver Gauge	ICI-3101	
G-2010-403		Johnson	Receiver Gauge	ICI-3102	
G340	AF24-SR US	Belimo	Electric Valve	*VEP-43350875	
G350	AF24-SR US	Belimo	Electric Valve	*VEP-43360875	
GBB161.1U/P		Siemens	Electric Damper Actuator	MEP-7502	
GBB166.1U/P		Siemens	Electric Damper Actuator	MEP-7502	CME-7002
GBB171.1U/P		Siemens	Electric Damper Actuator	MEP-7501	
GBB175.1U/P		Siemens	Electric Damper Actuator	MEP-7503	CME-7002
GCA131.1U/P		Siemens	Electric Damper Actuator	MEP-7551	
GCA135.1U/P		Siemens	Electric Damper Actuator	MEP-7553	CME-7002
GCA151.1U/P		Siemens	Electric Damper Actuator	MEP-7502	
GCA156.1U/P		Siemens	Electric Damper Actuator	MEP-7502	CME-7002
GCA161.1U/P		Siemens	Electric Damper Actuator	MEP-7553	
GCA166.1U/P		Siemens	Electric Damper Actuator	MEP-7052	CME-7002
GDE131.1U/P		Siemens	Electric Damper Actuator	MEP-4001	
GDE132.1P		Siemens	Electric Damper Actuator	MEP-4013	
GDE136.1U/P		Siemens	Electric Damper Actuator	MEP-4021 (w/ 1 internal aux. switch)	
GDE161.1P		Siemens	Electric Damper Actuator	MEP-4002	
GDE166.1P		Siemens	Electric Damper Actuator	MEP-4022 (w/ 1 internal aux. switch)	
GEB131.1P		Siemens	Electric Damper Actuator	MEP-7501	
GEB161.1P		Siemens	Electric Damper Actuator	MEP-7502	
GEB166.1U		Siemens	Electric Damper Actuator	MEP-7502	CME-7002
GIB151.1U/P		Siemens	Electric Damper Actuator	MEP-7802	
GIB156.1U/P		Siemens	Electric Damper Actuator	MEP-7802	CME-7002
GIB161.1U/P		Siemens	Electric Damper Actuator	MEP-7802	
GIB166.1U/P		Siemens	Electric Damper Actuator	MEP-7802	CME-7002
GIB171.1U/P		Siemens	Electric Damper Actuator	MEP-7801	
GIB175.1U/P		Siemens	Electric Damper Actuator	MEP-7803	CME-7002
GLB131.1P		Siemens	Electric Damper Actuator	MEP-7201	
GLB132.1P		Siemens	Electric Damper Actuator	MEP-7203	
GLB161.1P		Siemens	Electric Damper Actuator	MEP-7202	
GM24 US		Belimo	Electric Damper Actuator	MEP-7801	CME-7002
GM24-SR US		Belimo	Electric Damper Actuator	MEP-7802	CME-7002
GMA131.1P		Siemens	Electric Damper Actuator	MEP-5373	
GMA161.1P		Siemens	Electric Damper Actuator	MEP-5372	
GMA166.1P		Siemens	Electric Damper Actuator	MEP-5372	CME-1004
Kxxxxx					
K-312		Invensys	Relief Valve	HAO-1070	
K-381		Invensys	Pressure Reducing Valve	HAO-1021	
K-383		Invensys	Pressure Reducing Valve	HAO-1021	
Lxxxxx					
L480B		Honeywell	Low Temp. Thermostat	CTE-3006	
L480G		Honeywell	Low Temp. Thermostat	CTE-3007	
LF24-3		Belimo	Electric Damper Actuator	MEP-5373	
LF24-SR US		Belimo	Electric Damper Actuator	MEP-5372	
LF24-SR-S US		Belimo	Electric Damper Actuator	MEP-5372	CME-1002
LM24 US		Belimo	Electric Damper Actuator	MEP-4001	
LM24-10P US		Belimo	Electric Damper Actuator	MEP-4013	
LM24-S US		Belimo	Electric Damper Actuator	MEP-4022	
LM24SR T.1 US		Belimo	Electric Damper Actuator	MEP-4002	
LM24SR US		Belimo	Electric Damper Actuator	MEP-4022	
LP914A1052		Honeywell	Temperature Transmitter	TTC-1006	
LP916A1019		Honeywell	Unit Mount Thermostat	CTC-4001	

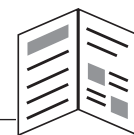


Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
Mxxxxx					
M301		Staefa/UPC	Pneumatic Actuator	MCP-1030/1130 Series	
M302		Staefa/UPC	Pneumatic Actuator	MCP-1020 Series	
M502 Series		Invensys	Pneumatic Actuator	MCP-1020 Series	
M503 Series		Invensys	Pneumatic Actuator	MCP-1030/1130 Series	
M504 Series		Invensys	Pneumatic Actuator	MCP-1040/1140 Series	
M506 Series		Invensys	Pneumatic Actuator	MCP-1160 Series	
M552 Series		Invensys	Pneumatic Actuator	MCP-1020 Series	
M553 Series		Invensys	Pneumatic Actuator	MCP-1030/1130 Series	
M554 Series		Invensys	Pneumatic Actuator	MCP-1040/1140 Series	
M556-14		Invensys	Pneumatic Damper Actuator	MCP-1160-1111	
M556-51		Invensys	Pneumatic Damper Actuator	MCP-1160-5111	
M556-5101		Invensys	Pneumatic Damper Actuator	MCP-1160-5101	
M572-2308		Invensys	Pneumatic Damper Actuator	MCP-1020-2308	
M572-2311		Invensys	Pneumatic Damper Actuator	MCP-1020-2311	
M572-2312		Invensys	Pneumatic Damper Actuator	MCP-1020-2312	
M572-3308		Invensys	Pneumatic Damper Actuator	MCP-1020-3308	
M572-3311		Invensys	Pneumatic Damper Actuator	MCP-1020-3311	
M572-3312		Invensys	Pneumatic Damper Actuator	MCP-1020-3312	
M572-5308		Invensys	Pneumatic Damper Actuator	MCP-1020-5308	
M572-5311		Invensys	Pneumatic Damper Actuator	MCP-1020-5311	
M572-5312		Invensys	Pneumatic Damper Actuator	MCP-1020-5312	
M572-6308		Invensys	Pneumatic Damper Actuator	MCP-1020-6308	
M572-6311		Invensys	Pneumatic Damper Actuator	MCP-1020-6311	
M572-6312		Invensys	Pneumatic Damper Actuator	MCP-1020-6312	
M572-8308		Invensys	Pneumatic Damper Actuator	MCP-1020-8308	
M572-8311		Invensys	Pneumatic Damper Actuator	MCP-1020-8311	
M572-8312		Invensys	Pneumatic Damper Actuator	MCP-1020-8312	
M573-1108		Invensys	Pneumatic Damper Actuator	MCP-1030-1108	
M573-1111		Invensys	Pneumatic Damper Actuator	MCP-1030-1111	
M573-1112		Invensys	Pneumatic Damper Actuator	MCP-1030-1112	
M573-1520		Invensys	Pneumatic Damper Actuator	MCP-1130-1520	
M573-1520		Invensys	Pneumatic Damper Actuator	MCP-1130-1520	
M573-2108		Invensys	Pneumatic Damper Actuator	MCP-1030-2108	
M573-2111		Invensys	Pneumatic Damper Actuator	MCP-1030-2111	
M573-2112		Invensys	Pneumatic Damper Actuator	MCP-1030-2112	
M573-2520		Invensys	Pneumatic Damper Actuator	MCP-1130-2520	
M573-3108		Invensys	Pneumatic Damper Actuator	MCP-1030-3108	
M573-3111		Invensys	Pneumatic Damper Actuator	MCP-1030-3111	
M573-3112		Invensys	Pneumatic Damper Actuator	MCP-1030-3112	
M573-3520		Invensys	Pneumatic Damper Actuator	MCP-1130-3520	
M573-5108		Invensys	Pneumatic Damper Actuator	MCP-1030-5108	
M573-5111		Invensys	Pneumatic Damper Actuator	MCP-1030-5111	
M573-5112		Invensys	Pneumatic Damper Actuator	MCP-1030-5112	
M573-5520		Invensys	Pneumatic Damper Actuator	MCP-1130-5520	
M573-6108		Invensys	Pneumatic Damper Actuator	MCP-1030-6108	
M573-6111		Invensys	Pneumatic Damper Actuator	MCP-1030-6111	
M573-6112		Invensys	Pneumatic Damper Actuator	MCP-1030-6112	
M573-6520		Invensys	Pneumatic Damper Actuator	MCP-1130-6520	
M573-8108		Invensys	Pneumatic Damper Actuator	MCP-1030-8108	
M573-8111		Invensys	Pneumatic Damper Actuator	MCP-1030-8111	
M573-8112		Invensys	Pneumatic Damper Actuator	MCP-1030-8112	
M573-8520		Invensys	Pneumatic Damper Actuator	MCP-1130-8520	
M574-1108		Invensys	Pneumatic Damper Actuator	MCP-1040-1108	
M574-1111		Invensys	Pneumatic Damper Actuator	MCP-1040-1111	
M574-1112		Invensys	Pneumatic Damper Actuator	MCP-1040-1112	
M574-1520		Invensys	Pneumatic Damper Actuator	MCP-1140-1520	
M574-2208		Invensys	Pneumatic Damper Actuator	MCP-1040-2208	
M574-2211		Invensys	Pneumatic Damper Actuator	MCP-1040-2211	
M574-2212		Invensys	Pneumatic Damper Actuator	MCP-1040-2212	
M574-2520		Invensys	Pneumatic Damper Actuator	MCP-1040-2520	
M574-3208		Invensys	Pneumatic Damper Actuator	MCP-1040-3211	
M574-3211		Invensys	Pneumatic Damper Actuator	MCP-1040-3211	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
M574-3212		Invensys	Pneumatic Damper Actuator	MCP-1040-3212	
M574-3520		Invensys	Pneumatic Damper Actuator	MCP-1140-3520	
M574-5208		Invensys	Pneumatic Damper Actuator	MCP-1040-5208	
M574-5211		Invensys	Pneumatic Damper Actuator	MCP-1040-5211	
M574-5212		Invensys	Pneumatic Damper Actuator	MCP-1040-5212	
M574-5520		Invensys	Pneumatic Damper Actuator	MCP-1140-5520	
M574-6208		Invensys	Pneumatic Damper Actuator	MCP-1040-6208	
M574-6211		Invensys	Pneumatic Damper Actuator	MCP-1040-6211	
M574-6212		Invensys	Pneumatic Damper Actuator	MCP-1040-6212	
M574-6520		Invensys	Pneumatic Damper Actuator	MCP-1140-6520	
M574-8208		Invensys	Pneumatic Damper Actuator	MCP-1040-8208	
M574-8211		Invensys	Pneumatic Damper Actuator	MCP-1040-8211	
M574-8212		Invensys	Pneumatic Damper Actuator	MCP-1040-8212	
M574-8520		Invensys	Pneumatic Damper Actuator	MCP-1140-8520	
M583-0211		Invensys	Pneumatic Damper Actuator	MCP-1231-0211	
M583-0520		Invensys	Pneumatic Damper Actuator	MCP-1231-0520	
M584-0211		Invensys	Pneumatic Damper Actuator	MCP-1241-0211	
M584-0520		Invensys	Pneumatic Damper Actuator	MCP-1241-0520	
M593-3095		Invensys	Pneumatic Damper Actuator	MCP-8031-3101	
M593-5095		Invensys	Pneumatic Damper Actuator	MCP-8031-5101	
M593-8095		Invensys	Pneumatic Damper Actuator	MCP-8031-8101	
M594-2208		Invensys	Pneumatic Damper Actuator	MCP-5140-2208	
M594-2211		Invensys	Pneumatic Damper Actuator	MCP-5140-2211	
M594-2212		Invensys	Pneumatic Damper Actuator	MCP-5140-2212	
M594-2520		Invensys	Pneumatic Damper Actuator	MCP-5140-2520	
M594-3208		Invensys	Pneumatic Damper Actuator	MCP-5140-3208	
M594-3211		Invensys	Pneumatic Damper Actuator	MCP-5140-3211	
M594-3212		Invensys	Pneumatic Damper Actuator	MCP-5140-3212	
M594-3520		Invensys	Pneumatic Damper Actuator	MCP-5140-3520	
M594-5208		Invensys	Pneumatic Damper Actuator	MCP-5140-5208	
M594-5211		Invensys	Pneumatic Damper Actuator	MCP-5140-5211	
M594-5212		Invensys	Pneumatic Damper Actuator	MCP-5140-5212	
M594-5520		Invensys	Pneumatic Damper Actuator	MCP-5140-5520	
M594-6208		Invensys	Pneumatic Damper Actuator	MCP-5140-6208	
M594-6211		Invensys	Pneumatic Damper Actuator	MCP-5140-6211	
M594-6212		Invensys	Pneumatic Damper Actuator	MCP-5140-6212	
M594-6520		Invensys	Pneumatic Damper Actuator	MCP-5140-6520	
M594-8208		Invensys	Pneumatic Damper Actuator	MCP-5140-8208	
M594-8211		Invensys	Pneumatic Damper Actuator	MCP-5140-8211	
M594-8212		Invensys	Pneumatic Damper Actuator	MCP-5140-8212	
M594-8520		Invensys	Pneumatic Damper Actuator	MCP-5140-8520	
M594-9108		Invensys	Pneumatic Damper Actuator	MCP-5140-9108	
M594-9111		Invensys	Pneumatic Damper Actuator	MCP-5140-9111	
M594-9112		Invensys	Pneumatic Damper Actuator	MCP-5140-9112	
M594-9520		Invensys	Pneumatic Damper Actuator	MCP-5140-9520	
M693-3095		Invensys	Pneumatic Damper Actuator	MCP-8031-3101	
M693-5095		Invensys	Pneumatic Damper Actuator	MCP-8031-5101	
M693-8095		Invensys	Pneumatic Damper Actuator	MCP-8031-8101	
M9104-AGA-2		Johnson	Electric Damper Actuator	MEP-4001	
M9104-AGC-2		Johnson	Electric Damper Actuator	MEP-4001	CME-1004
M9104-GGA-2		Johnson	Electric Damper Actuator	MEP-4002	
M9104-GGC-2		Johnson	Electric Damper Actuator	MEP-4022 (w/ 1 internal aux. switch)	
M9108-AGA-2		Johnson	Electric Damper Actuator	MEP-7201	
M9108-AGE-2		Johnson	Electric Damper Actuator	MEP-7203	
M9108-GGA-2		Johnson	Electric Damper Actuator	MEP-7202	
M9116-AGA-2		Johnson	Electric Damper Actuator	MEP-7501	
M9116-AGC-2		Johnson	Electric Damper Actuator	MEP-7503	CME-7002
M9116-GGA-2		Johnson	Electric Damper Actuator	MEP-7502	
M9116-GGC-2		Johnson	Electric Damper Actuator	MEP-7502	CME-7002
M9124-AGA-2		Johnson	Electric Damper Actuator	MEP-7801	
M9124-AGE-2		Johnson	Electric Damper Actuator	MEP-7803	CME-7002
M9124-GGA-2		Johnson	Electric Damper Actuator	MEP-7802	
M9124-GGC-2		Johnson	Electric Damper Actuator	MEP-7802	CME-7002

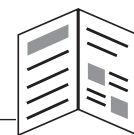


Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
M9206-GGA-2		Johnson	Electric Damper Actuator	MEP-5372	
M9206-GGC-2		Johnson	Electric Damper Actuator	MEP-5372	CME-1004
M9216-AGA-2		Johnson	Electric Damper Actuator	MEP-7551	
M9216-AGC-2		Johnson	Electric Damper Actuator	MEP-7553	CME-7002
M9216-AGE-2		Johnson	Electric Damper Actuator	MEP-7553	CME-7002
M9216-HGA-2		Johnson	Electric Damper Actuator	MEP-7553	
M9216-HGC-2		Johnson	Electric Damper Actuator	MEP-7553	
MF1233		Invensys	Electric Damper Actuator	MEP-5071	
MF1233-002		Invensys	Electric Damper Actuator	MEP-5071	CME-1004
MF-6233		Invensys	Electric Damper Actuator	MEP-5061	
MF-6633		Invensys	Electric Damper Actuator	MEP-7501	
MK-4401		Invensys	Pneumatic Damper Actuator	MCP-5140-8520	
MK-4411		Invensys	Pneumatic Damper Actuator	MCP-5140-2520	
MK-4421		Invensys	Pneumatic Damper Actuator	MCP-5160-9114	
MK-573-31		Invensys	Pneumatic Damper Actuator	MCP-1030-3111	
MK-573-38		Invensys	Pneumatic Damper Actuator	MCP-1030-3108	
MK-573-51		Invensys	Pneumatic Damper Actuator	MCP-1030-5111	
MK-573-58		Invensys	Pneumatic Damper Actuator	MCP-1030-5108	
MK-574-31		Invensys	Pneumatic Damper Actuator	MCP-1040-3211	
MK-574-38		Invensys	Pneumatic Damper Actuator	MCP-1040-3208	
MK-574-51		Invensys	Pneumatic Damper Actuator	MCP-1040-5211	
MK-574-58		Invensys	Pneumatic Damper Actuator	MCP-1040-5208	
MK-693-35		Invensys	Pneumatic Damper Actuator	MCP-8031-3095	
MK-693-55		Invensys	Pneumatic Damper Actuator	MCP-8031-5095	
MK-693-85		Invensys	Pneumatic Damper Actuator	MCP-8031-8095	
ML6161A1001		Honeywell	Electric Damper Actuator	MEP-4013	
ML6161A2009		Honeywell	Electric Damper Actuator	MEP-4013	
ML6161B2024		Honeywell	Electric Damper Actuator	MEP-4001	
ML6161C2007		Honeywell	Electric Damper Actuator	MEP-4013	
ML6161D1008		Honeywell	Electric Damper Actuator	MEP-4001	
ML6161D2006		Honeywell	Electric Damper Actuator	MEP-4001	
ML6174A2002		Honeywell	Electric Damper Actuator	MEP-7203	
ML6174B2019		Honeywell	Electric Damper Actuator	MEP-7201	
ML6174C2000		Honeywell	Electric Damper Actuator	MEP-7203	
ML6174D2009		Honeywell	Electric Damper Actuator	MEP-7201	
ML6184A1003		Honeywell	Electric Damper Actuator	MEP-7501	
ML6184D1000		Honeywell	Electric Damper Actuator	MEP-7501	
ML6184F1008		Honeywell	Electric Damper Actuator	MEP-7503	CME-7002
ML6185A1000		Honeywell	Electric Damper Actuator	MEP-5373	
ML6194A1002		Honeywell	Electric Damper Actuator	MEP-7801	
ML6195A1009		Honeywell	Electric Damper Actuator	MEP-7551	
ML6295C1005		Honeywell	Electric Damper Actuator	MEP-7553	CME-7002
ML6464A1008		Honeywell	Electric Damper Actuator	MEP-7501	
ML6464A1008		Honeywell	Electric Damper Actuator	MEP-7503	CME-7002
ML7161A1000		Honeywell	Electric Damper Actuator	MEP-4001	
ML7161A2008		Honeywell	Electric Damper Actuator	MEP-4002	
ML7174A2001		Honeywell	Electric Damper Actuator	MEP-7202	
ML7284A1018		Honeywell	Electric Damper Actuator	MEP-7502	
ML7284D1015		Honeywell	Electric Damper Actuator	MEP-7502	
ML7284F1013		Honeywell	Electric Damper Actuator	MEP-7502	CME-7002
ML7285A1007		Honeywell	Electric Damper Actuator	MEP-5372	
ML7285C1005		Honeywell	Electric Damper Actuator	MEP-5372	CME-1004
ML7294A1009		Honeywell	Electric Damper Actuator	MEP-7802	
ML7294C1007		Honeywell	Electric Damper Actuator	MEP-7802	CME-7002
ML7295A1006		Honeywell	Electric Damper Actuator	MEP-7052	
ML7295A1014		Honeywell	Electric Damper Actuator	MEP-7502	
ML7295C1004		Honeywell	Electric Damper Actuator	MEP-7052	CME-7002
ML7295C1012		Honeywell	Electric Damper Actuator	MEP-7502	CME-7002
ML7474A1007		Honeywell	Electric Damper Actuator	MEP-7502	
ML7474A1007		Honeywell	Electric Damper Actuator	MEP-7502	CME-7002
ML7475A1004		Honeywell	Electric Damper Actuator	MEP-7553	
ML9264A1000		Honeywell	Electric Damper Actuator	MEP-7803	CME-7002



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
MP909D		Honeywell	Pneumatic Damper Actuator	MCP-1020-5311	
MP909D1201		Honeywell	Pneumatic Damper Actuator	MCP-1130-8520	
MP909D1201		Honeywell	Pneumatic Damper Actuator	MCP-8031-8101	
MP909D1219		Honeywell	Pneumatic Damper Actuator	MCP-1130-5520	
MP909D1219		Honeywell	Pneumatic Damper Actuator	MCP-8031-5101	
MP909D1227		Honeywell	Pneumatic Damper Actuator	MCP-1130-3520	
MP909D1227		Honeywell	Pneumatic Damper Actuator	MCP-8031-3101	
MP909D1300		Honeywell	Pneumatic Damper Actuator	MCP-8031-8195	
MP909D1318		Honeywell	Pneumatic Damper Actuator	MCP-8031-5095	
MP909D1334		Honeywell	Pneumatic Damper Actuator	MCP-1030-3108	
MP909D1359		Honeywell	Pneumatic Damper Actuator	MCP-8031-8195	
MP909D1441		Honeywell	Pneumatic Damper Actuator	MCP-1130-3520	
MP909D1441		Honeywell	Pneumatic Damper Actuator	MCP-8031-3101	
MP909E		Honeywell	Pneumatic Damper Actuator	MCP-1030-5111	
MP909E1083		Honeywell	Pneumatic Damper Actuator	MCP-8031-8195	
MP909E1158		Honeywell	Pneumatic Damper Actuator	MCP-1130-5520	
MP909E1174		Honeywell	Pneumatic Damper Actuator	MCP-8031-5095	
MP909E1372		Honeywell	Pneumatic Damper Actuator	MCP-1130-8520	
MP909E1380		Honeywell	Pneumatic Damper Actuator	MCP-1130-5520	
MP909E1398		Honeywell	Pneumatic Damper Actuator	MCP-1130-5520	
MP918A1024		Honeywell	Pneumatic Damper Actuator	MCP-5160-9111	
MP918A1057		Honeywell	Pneumatic Damper Actuator	MCP-5160-9111	
MP918A1081		Honeywell	Pneumatic Damper Actuator	MCP-5160-9111	
MP918B1006		Honeywell	Pneumatic Damper Actuator	MCP-5160-9111	
MP918B1014		Honeywell	Pneumatic Damper Actuator	MCP-5160-9111	
MP918B1022		Honeywell	Pneumatic Damper Actuator	MCP-5160-9111	
MP918B1030		Honeywell	Pneumatic Damper Actuator	MCP-5160-9111	
MP918B1063		Honeywell	Pneumatic Damper Actuator	MCP-5160-9111	
MP918B1071		Honeywell	Pneumatic Damper Actuator	MCP-5160-9111	
MP918B1089		Honeywell	Pneumatic Damper Actuator	MCP-5160-9111	
MP918B1097		Honeywell	Pneumatic Damper Actuator	MCP-5160-9111	
MP918B1105		Honeywell	Pneumatic Damper Actuator	MCP-5160-9111	
MP918B1113		Honeywell	Pneumatic Damper Actuator	MCP-5160-9111	
MP918B1196		Honeywell	Pneumatic Damper Actuator	MCP-5160-9111	
MS-6633		Invensys	Electric Damper Actuator	MEP-7502	
Nxxxxx					
N100-4017		Invensys	PE Switch	CCE-1001	
N1-51		Invensys	Differential Pressure Pick up	SSS-1002	
N1-52		Invensys	Differential Pressure Pick up	SSS-1003	
N1-53		Invensys	Differential Pressure Pick up	SSS-1004	
N4-14		Invensys	Relief Valve	HAO-1070	
N800-0203		Invensys	Pneumatic Damper Actuator	MCP-0203	
N800-0205		Invensys	Pneumatic Damper Actuator	MCP-0205	
N800-0302		Invensys	Pneumatic Damper Actuator	MCP-0302	
N800-0303		Invensys	Pneumatic Damper Actuator	MCP-0303	
N800-0305		Invensys	Pneumatic Damper Actuator	MCP-0305	
N800-0306		Invensys	Pneumatic Damper Actuator	MCP-0306	
N800-0308		Invensys	Pneumatic Damper Actuator	MCP-0308	
N800-0352		Invensys	Pneumatic Damper Actuator	MCP-0352	
N800-0353		Invensys	Pneumatic Damper Actuator	MCP-0353	
N800-0355		Invensys	Pneumatic Damper Actuator	MCP-0355	
N800-0356		Invensys	Pneumatic Damper Actuator	MCP-0356	
N800-0358		Invensys	Pneumatic Damper Actuator	MCP-0358	
N800-0403		Invensys	Pneumatic Damper Actuator	MCP-0403	
N800-0405		Invensys	Pneumatic Damper Actuator	MCP-0405	
N800-0406		Invensys	Pneumatic Damper Actuator	MCP-0406	
N800-0408		Invensys	Pneumatic Damper Actuator	MCP-0408	
N800-0453		Invensys	Pneumatic Damper Actuator	MCP-0453	
N800-0455		Invensys	Pneumatic Damper Actuator	MCP-0455	
N800-0456		Invensys	Pneumatic Damper Actuator	MCP-0456	
N800-0458		Invensys	Pneumatic Damper Actuator	MCP-0458	
N800-0801		Invensys	Ball Joint	VTD-0801	

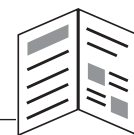


Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
N800-0803		Invensys	Ball Joint	VTD-0803	
N800-0804		Invensys	Ball Joint	VTD-0804	
N800-0902		Invensys	3x3 Or 4x4 Mounting Bracket	VTD-0902	
N800-0903		Invensys	2x2 mounting Bracket	VTD-0903	
N800-1100		Invensys	Clevis Pin	VTD-1100	
N800-1107		Invensys	Clevis	VTD-1007	
N800-1205		Invensys	Cotter Pin	VTD-1205	
N800-1403		Invensys	Crankarm	VTD-1403	
N800-1404		Invensys	Crankarm	VTD-1404	
N800-1414		Invensys	Crankarm	VTD-1414	
N800-1415		Invensys	Crankarm	VTD-1415	
N800-1612		Invensys	Pushrod	VTD-1611	
N800-1630		Invensys	Pushrod	VTD-1630	
N800-2151		Invensys	4x4 Feedback Spring; 5#	VTD-2251	
N800-2250		Invensys	3x3 Feedback Spring; 5 #	VTD-2250	
N800-2252		Invensys	4x4 Feedback Spring; 10#	VTD-2261	
N800-2252		Invensys	6x6 Feedback Spring; 5#	VTD-2252	
N8002260		Invensys	3x3 Feedback Spring; 10 #	VTD-2260	
N800-2262		Invensys	6x6 Feedback Spring; 10#	VTD-2262	
N800-4202		Invensys	2x2 Replacement Spring; 3-12#	VTD-4202	
N800-4203		Invensys	2x2 Replacement Spring; 5-10#	VTD-4203	
N800-4205		Invensys	2x2 Replacement Spring; 8-13#	VTD-4205	
N800-4206		Invensys	2x2 Replacement Spring; 10-15#	VTD-4206	
N800-4208		Invensys	2x2 Replacement Spring; 4-8#	VTD-4208	
N800-4302		Invensys	3x3 Replacement Spring; 3-12#	VTD-4302	
N800-4303		Invensys	3x3 Replacement Spring; 5-10#	VTD-4303	
N800-4305		Invensys	3x3 Replacement Spring; 8-13#	VTD-4305	
N800-4306		Invensys	3x3 Replacement Spring; 10-15#	VTD-4306	
N800-4308		Invensys	3x3 Replacement Spring; 4-8#	VTD-4308	
N800-4402		Invensys	4x4 Replacement Spring; 3-12#	VTD-4402	
N800-4403		Invensys	4x4 Replacement Spring; 5-10#	VTD-4403	
N800-4405		Invensys	4x4 Replacement Spring; 8-13#	VTD-4405	
N800-4406		Invensys	4x4 Replacement Spring; 10-15#	VTD-4406	
N800-4408		Invensys	4x4 Replacement Spring; 4-8#	VTD-4408	
N800-9422		Invensys	2x2 Actuator Diaphragm	VTD-9422	
N800-9423		Invensys	3x3 Actuator Diaphragm	VTD-9423	
N800-9424		Invensys	4x4 Actuator Diaphragm	VTD-9424	
N800-9426		Invensys	6x6 Actuator Diaphragm	VTD-9426	
NF24-SR US		Belimo	Electric Damper Actuator	MEP-5372	
NM24 SR		Belimo	Electric Damper Actuator	MEP-4022 (w/ 1 internal aux. switch)	
NM24 US		Belimo	Electric Damper Actuator	MEP-5061	CME-1004
Pxxxxx					
P10BC-7		Johnson	PE Switch	CCE-1001	
P10FC-4		Johnson	PE Switch	CCE-1002	
P323-01		Invensys	Low Diff. Pressure Transmitter	TSC-2005	
P323-03		Invensys	Low Diff. Pressure Transmitter	TSC-2004	
P340		Invensys	Pneumatic Receiver-Controller	CCC-1002	
P341		Invensys	Pneumatic Receiver-Controller	CCC-1002	
P3800-1		Johnson	Multi-Function VAV Controller	CSC-3011-10	
P3800-2		Johnson	Multi-Function VAV Controller	CSC-3011-10	
P502-50		Invensys	Diff. Pressure Transmitter	TPC-1002	
P-5210-1004		Johnson	Diff. Pressure Transmitter	TPC-1002	
P-5215-7		Johnson	Low Diff. Pressure Transmitter	TSC-2005	
P-5215-9		Johnson	Low Diff. Pressure Transmitter	TSC-2004	
P541		Invensys	Pneumatic Receiver-Controller	CCC-1002	
P541-RA		Invensys	Pneumatic Receiver-Controller	CCC-1002	
P643A1007		Honeywell	PE Switch	CCE-1001	
P6581012		Honeywell	PE Switch	CCE-1001	
P658A		Honeywell	PE Switch	CCE-1001	
P658A1005		Honeywell	PE Switch	CCE-1001	
P658A1013		Honeywell	PE Switch	CCE-1001	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
P658A1021		Honeywell	PE Switch	CCE-1001	
P658B		Honeywell	PE Switch	CCE-1001	
P658B1004		Honeywell	PE Switch	CCE-1001	
P658B1020		Honeywell	PE Switch	CCE-1001	
P658C1003		Honeywell	PE Switch	CCE-1001	
PC-110		Invensys	PE Switch	CCE-1001	
PKS-323-01		Invensys	Low Diff. Pressure Transmitter	TSC-2005	
PKS-323-03		Invensys	Low Diff. Pressure Transmitter	TSC-2004	
PKSR-9001		Invensys	Diff. Pressure Transmitter	TPC-1002	
PP901A1004		Honeywell	Pressure Reducing Valve	HAO-1021	
PP901B1002		Honeywell	Pressure Reducing Valve	HAO-1021	
PP903A1010		Honeywell	Differ. Pressure Transmitter	TPC-1002	
PP904B1017		Honeywell	Low Diff. Pressure Transmitter	TSC-2004	
PT973A2209		Honeywell	Pneumatic Room Thermostat	CTC-1611	
Rxxxxx					
R-2090-6		Johnson	Reverse-Acting Relay	RCC-1504	
R-3030-1		Johnson	Reverse-Acting Relay	RCC-1504	
R404-101		Invensys	Switching Relay	RCC-1109	
R404-201		Invensys	Switching Relay	RCC-1109	
R415		Invensys	Reverse-Acting Relay	RCC-1504	
R416		Invensys	Reverse-Acting Relay	RCC-1504	
R416-1		Invensys	Reverse-Acting Relay	RCC-1504	
R416-2		Invensys	Reverse-Acting Relay	RCC-1504	
R-427-10		Invensys	EP Switch	VEC-1021	
R-427-20		Invensys	EP Switch	VEC-1022	
R-427-30		Invensys	EP Switch	VEC-1026	
R-427-40		Invensys	EP Switch	VEC-1023	
R-427-60		Invensys	EP Switch	VEC-1034	
R432-11		Invensys	Low Pressure Selector	RCC-1106	
R432-2		Invensys	High Pressure Selector	RCC-1108	
R436		Invensys	Diff. Static Pressure Air Flow Switch	CSE-1103	
R471-1		Invensys	PE Switch	CCE-1001	
R503-2		Invensys	Switching Relay	RCC-1109	
R504-1		Invensys	Switching Relay	RCC-1109	
R504-2		Invensys	Switching Relay	RCC-1109	
R516		Invensys	Reverse-Acting Relay	RCC-1504	
R532-H		Invensys	High Pressure Selector	RCC-1108	
R532-L		Invensys	Low Pressure Selector	RCC-1106	
R533		Invensys	High/Low Signal Selector Relay	RCC-1111	
R77-21		Invensys	DA/NO VAV Controller W/Dials	CSC-2001	
R77-22		Invensys	RA/NC VAV Controller W/Dials	CSC-2002	
R77-23		Invensys	DA/NO VAV Controller	CSC-2003	
R77-24		Invensys	RA/NC VAV Controller	CSC-2004	
REC-790 Series		Invensys	Electric Actuator	CEP-4000 Series	Replace REE Relays
REE-1001		KMC	Electronic Relay Module	REE-4001	Replace Controller
REE-1002		KMC	Electronic Relay Module	REE-4002	Replace Controller
REE-1006		KMC	Electronic Relay Module	REE-4006	Replace Controller
REE-1011		KMC	Electronic Relay Module	REE-4011	Replace Controller
REE-1015		KMC	Electronic Relay Module	REE-4015	Replace Controller
REE-1017		KMC	Electronic Relay Module	REE-4017	Replace Controller
REM-700-100		Invensys	Electric Actuator	MEP-1501	
REM-700-200		Invensys	Electric Actuator	MEP-1502	
REM-700-300		Invensys	Electric Actuator	MEP-1503	
REM-700-400		Invensys	Electric Actuator	MEP-1504	
RER-703		Invensys	Electronic Relay Module	REE-4001	
RER-713		Invensys	Electronic Relay Module	REE-4002	
RER-723		Invensys	Electronic Relay Module	REE-1005	Replace Controller



Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
RES-051		Invensys	Air Velocity Sensor	SSE-1001	
RES-052		Invensys	Air Velocity Sensor	SSE-1002	
RES-151		Invensys	Air Velocity Sensor	SSE-2001	
RES-152		Invensys	Air Velocity Sensor	SSE-2002	
RET-120		Invensys	Electronic Thermostat	CTE-1004	
RET-180		Invensys	Electronic Thermostat	CTE-1001	
RET-185		Invensys	Electronic Thermostat	CTE-1001	Replace Controller
RET-190		Invensys	Electronic Thermostat	CTE-1002	
RET-195		Invensys	Electronic Thermostat	CTE-1002	Replace Controller
RET-320		Invensys	Electronic Thermostat	CTE-1003	
RET-321		Invensys	Electronic Thermostat	CTE-1005	
RET-322		Invensys	Electronic Thermostat	CTE-1008	
RET-325		Invensys	Electronic Thermostat	CTE-1003	Replace Controller
RK-503-2		Invensys	Switching Relay	RCC-1109	
RK-504-1		Invensys	Switching Relay	RCC-1109	
RK-504-2		Invensys	Switching Relay	RCC-1109	
RK-516		Invensys	Reverse-Acting Relay	RCC-1504	
RK-532-H		Invensys	High Pressure Selector	RCC-1108	
RK-532-L		Invensys	Low Pressure Selector	RCC-1504	
RK-533		Invensys	High/Low Signal Selector Relay	RCC-1111	
RKS-1001		Invensys	Pneumatic Receiver-Controller	CCC-1002	
RKS-2001		Invensys	Pneumatic Receiver-Controller	CCC-1002	
RKS-3001		Invensys	Pneumatic Receiver-Controller	CCC-1002	
RKS-3002		Invensys	Pneumatic Receiver-Controller	CCC-1002	
RKS-4001		Invensys	Pneumatic Receiver-Controller	CCC-1002	
RKS-4002		Invensys	Pneumatic Receiver-Controller	CCC-1002	
RKS-5001		Invensys	Pneumatic Receiver-Controller	CCC-1002	
RKSR-4000		Invensys	Pneumatic Receiver-Controller	CCC-1002	
RO49A2		Honeywell	Switching Relay	RCC-1109	
RO95B		Honeywell	Reverse-Acting Relay	RCC-1504	
RP2360-151		Invensys	Reverse-Acting Relay	RCC-1504	
RP418A1065		Honeywell	EP Switch	VEC-1035	
RP418A1081		Honeywell	EP Switch	VEC-1026	
RP418A1099		Honeywell	EP Switch	VEC-1023	
RP418A1107		Honeywell	EP Switch	VEC-1022	
RP418B1063		Honeywell	EP Switch	VEC-1023	
RP418B1071		Honeywell	EP Switch	VEC-1012	
RP470A1003		Honeywell	Low Pressure Selector	RCC-1106	
RP470A1004		Honeywell	High Pressure Selector	RCC-1108	
RP670A1001		Honeywell	Switching Relay	RCC-1109	
RP670A1019		Honeywell	Switching Relay	RCC-1109	
RP670A1027		Honeywell	Switching Relay	RCC-1109	
RP670A1035		Honeywell	Switching Relay	RCC-1109	
RP670B1009		Honeywell	Switching Relay	RCC-1109	
RP670B1017		Honeywell	Switching Relay	RCC-1110	
RP751B		Honeywell	Elec. Pneumatic Transducer	XEC-3002	
RP751B		Honeywell	Elec. Pneumatic Transducer	XEC-3004	
RP818A1004		Honeywell	EP Switch	VEC-1021	
RP818B1002		Honeywell	EP Switch	VEC-1011	
RP904B		Honeywell	Reverse-Acting Relay	RCC-1504	
RP908A		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP908A1005		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP908A1013		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP908A1021		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP908A1039		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP908B		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP908B1003		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP908B1029		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP908B1037		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP913A1008		Honeywell	High/Low Signal Selector Relay	RCC-1111	
RP920A		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP920A1025		Honeywell	Pneumatic Receiver-Controller	CCC-1002	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
RP920A1033		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP920A1041		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP920A1058		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP920B		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP920B1023		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP920B1031		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP920B1049		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP920B1056		Honeywell	Pneumatic Receiver-Controller	CCC-1002	
RP95B		Honeywell	Reverse-Acting Relay	RCC-1504	
RP972A1006		Honeywell	Reverse-Acting Relay	RCC-1504	
RP972A1030		Honeywell	Reverse-Acting Relay	RCC-1504	
Sxxxxx					
S-224-1		Johnson	Positioning/Gradual Switch	YMC-1001	
S-2300-1		Johnson	Selector/Diverting Switch	YMC-3001	
S-2300-2		Johnson	Selector/Diverting Switch	YMC-3001	
S-510		Invensys	Positioning/Gradual Switch	YMC-1001	
S-530		Invensys	Selector/Diverting Switch	YMC-3001	
SK-530		Invensys	Selector/Diverting Switch	YMC-3001	
SK-531		Invensys	Selector/Diverting Switch	YMC-3001	
SM24-S US		Belimo	Electric Damper Actuator	MEP-7503	CME-7002
SP470A1018		Honeywell	Selector/Diverting Switch	YMC-3001	
SP470A1034		Honeywell	Selector/Diverting Switch	YMC-3001	
SP470B1016		Honeywell	Selector/Diverting Switch	YMC-3001	
SP970A		Siemens	Positioning/Gradual Switch	YMC-1001	
SQB61.1		Siemens	Electric Damper Actuator	MEP-7553	
SQR65.1		Siemens	Electric Damper Actuator	MEP-7502	
SQR65.1		Siemens	Electric Damper Actuator	MEP-7502	CME-7002
SQR85.1		Siemens	Electric Damper Actuator	MEP-7501	
SQR85.1		Siemens	Electric Damper Actuator	MEP-7503	CME-7002
Txxxxx					
T12-2011		Invensys	Pneumatic Room Thermostat	CTC-1611	
T-12-301		Invensys	Pneumatic Room Thermostat	CTC-1611	
T-12-3011		Invensys	Pneumatic Room Thermostat	CTC-1611	
T-12-3081		Invensys	Pneumatic Room Thermostat	CTC-1611	
T-13-301		Invensys	Pneumatic Room Thermostat	CTC-1612	
T-13-3011		Invensys	Pneumatic Room Thermostat	CTC-1612	
T-13-3081		Invensys	Pneumatic Room Thermostat	CTC-1612	
T150-1021		Invensys	Temperature Transmitter	TTC-1003	
T150-1023		Invensys	Temperature Transmitter	TTC-2003	
T150-1054		Invensys	Temperature Transmitter	TTC-1507	
T15-101		Invensys	Pneumatic Room Thermostat	CTC-1621	
T16-101		Invensys	Pneumatic Room Thermostat	CTC-1622	
T18-101		Invensys	Pneumatic Room Thermostat	CTC-1621	
T18-201		Invensys	Pneumatic Room Thermostat	CTC-1621	
T-18-301		Invensys	Pneumatic Room Thermostat	CTC-1621	
T-18-3011		Invensys	Pneumatic Room Thermostat	CTC-1621	
T-18-305		Invensys	Pneumatic Room Thermostat	CTC-1621	
T-18-306		Invensys	Pneumatic Room Thermostat	CTC-1621	
T-18-3081		Invensys	Pneumatic Room Thermostat	CTC-1621	
T-18-3091		Invensys	Pneumatic Room Thermostat	CTC-1621	
T19-101		Invensys	Pneumatic Room Thermostat	CTC-1622	
T19-201		Invensys	Pneumatic Room Thermostat	CTC-1622	
T19-301		Invensys	Pneumatic Room Thermostat	CTC-1622	
T19-3011		Invensys	Pneumatic Room Thermostat	CTC-1622	
T-23-301		Invensys	Pneumatic Room Thermostat	CTC-1643	
T-23-3011		Invensys	Pneumatic Room Thermostat	CTC-1643	
T-24-301		Invensys	Pneumatic Room Thermostat	CTC-1644	
T-24-3011		Invensys	Pneumatic Room Thermostat	CTC-1644	
T-27-301		Invensys	Pneumatic Room Thermostat	CTC-1653	



Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
T-27-3011		Invensys	Pneumatic Room Thermostat	CTC-1653	
T301		Invensys	High Temperature Limit Thermostat	CTE-6001	
T-3100-2		Johnson	Unit Mount Thermostat	CTC-4001	
T-32-301		Invensys	Pneumatic Room Thermostat	CTC-1645	
T-32-3011		Invensys	Pneumatic Room Thermostat	CTC-1645	
T-32-321		Invensys	Pneumatic Room Thermostat	CTC-1645	
T-33-301		Invensys	PneumaticRoom Thermostat	CTC-1646-25	
T-34-3011		Invensys	Pneumatic Room Thermostat	CTC-1645	
T-35-301		Invensys	Pneumatic Room Thermostat	CTC-1504-10	
T-4002-201		Johnson	Pneumatic Room Thermostat	CTC-1621	
T-4002-202		Johnson	Pneumatic Room Thermostat	CTC-1622	
T-4002-203		Johnson	Pneumatic Room Thermostat	CTC-1621	
T-4002-204		Johnson	Pneumatic Room Thermostat	CTC-1622	
T-4002-301		Johnson	Pneumatic Room Thermostat	CTC-1621-103	
T-4002-302		Johnson	Pneumatic Room Thermostat	CTC-1622-103	
T-4004-A		Johnson	Pneumatic Room Thermostat	CTC-1611	
T-4004-207		Johnson	Pneumatic Room Thermostat	CTC-1612	
T-4054-1		Johnson	Pneumatic Room Thermostat	CTC-1504-10	
T-4054-2		Johnson	Pneumatic Room Thermostat	CTC-1505-10	
T-4100-1		Johnson	Pneumatic Room Thermostat	CTC-1611	
T-4100-2		Johnson	Pneumatic Room Thermostat	CTC-1612	
T-4100-3		Johnson	Pneumatic Room Thermostat	CTC-1611	
T-4100-4		Johnson	Pneumatic Room Thermostat	CTC-1612	
T-4100-6001		Johnson	Pneumatic Room Thermostat	CTC-1611	
T-4100-6002		Johnson	Pneumatic Room Thermostat	CTC-1612	
T-4100-6003		Johnson	Pneumatic Room Thermostat	CTC-1611	
T-4100-6004		Johnson	Pneumatic Room Thermostat	CTC-1612	
T-4506-201		Johnson	Pneumatic Room Thermostat	CTC-1653	
T-4506-201		Johnson	PneumaticRoom Thermostat	CTC-1643	
T-4506-202		Johnson	Pneumatic Room Thermostat	CTC-1653	
T-4506-202		Johnson	PneumaticRoom Thermostat	CTC-1643	
T-4506-203		Johnson	PneumaticRoom Thermostat	CTC-1643	
T-4506-204		Johnson	PneumaticRoom Thermostat	CTC-1643	
T-4506-209		Johnson	Pneumatic Room Thermostat	CTC-1644	
T-4506-217		Johnson	Pneumatic Room Thermostat	CTC-1644	
T-4506-6201		Johnson	PneumaticRoom Thermostat	CTC-1643	
T-4506-6202		Johnson	PneumaticRoom Thermostat	CTC-1643	
T-4506-6203		Johnson	Pneumatic Room Thermostat	CTC-1643	
T-4506-6204		Johnson	Pneumatic Room Thermostat	CTC-1643	
T-4506-6209		Johnson	Pneumatic Room Thermostat	CTC-1644	
T-4506-6217		Johnson	Pneumatic Room Thermostat	CTC-1644	
T-4516-201		Johnson	Pneumatic Room Thermostat	CTC-1653	
T-4516-202		Johnson	Pneumatic Room Thermostat	CTC-1653	
T-4516-6201		Johnson	Pneumatic Room Thermostat	CTC-1653	
T-4516-6202		Johnson	Pneumatic Room Thermostat	CTC-1653	
T-4552-201		Johnson	Pneumatic Room Thermostat	CTC-1646-25	
T-4576-217		Johnson	Pneumatic Room Thermostat	CTC-1645	
T-4600-1		Johnson	Pneumatic Room Thermostat	CTC-1004-10	
T-4600-3		Johnson	Pneumatic Room Thermostat	CTC-1004-11	
T-4600-5		Johnson	Pneumatic Room Thermostat	CTC-1006-10	
T-4600-6		Johnson	Pneumatic Room Thermostat	CTC-1006-11	
T-4600-6001		Johnson	Pneumatic Room Thermostat	CTC-1004-10	
T-4600-6003		Johnson	Pneumatic Room Thermostat	CTC-1004-11	
T-4600-6005		Johnson	Pneumatic Room Thermostat	CTC-1006-10	
T-4600-6006		Johnson	Pneumatic Room Thermostat	CTC-1006-11	
T-4752-201		Johnson	Pneumatic Room Thermostat	CTC-1646-25	
T-4752-205		Johnson	Pneumatic Room Thermostat	CTC-1645	
T-4752-206		Johnson	Pneumatic Room Thermostat	CTC-1645	
T-4756-201		Johnson	Pneumatic Room Thermostat	CTC-1646-25	
T-4756-205		Johnson	Pneumatic Room Thermostat	CTC-1645	
T-4756-206		Johnson	Pneumatic Room Thermostat	CTC-1645	
T-5002-201		Johnson	Temperature Transmitter	TTC-3001	
T-5002-202		Johnson	Temperature Transmitter	TTC-3001	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
T-5210-1001		Johnson	Temperature Transmitter	TTC-1505	
T-5210-1004		Johnson	Temperature Transmitter	TTC-1006	
T-5210-1009		Johnson	Temperature Transmitter	TTC-2003	
T-5210-1118		Johnson	Temperature Transmitter	TTC-2003	
T-5210-1151		Johnson	Temperature Transmitter	TTC-1507	
T-5210-2001		Johnson	Temperature Transmitter	TTC-1505	
T-5210-2003		Johnson	Temperature Transmitter	TTC-1003	
T-5500-1051		Johnson	Receiver Gauge	ICI-3102	
T-5500-1053		Johnson	Receiver Gauge	ICI-3102	
T-5500-1054		Johnson	Receiver Gauge	ICI-3102	
T-5500-1055		Johnson	Receiver Gauge	ICI-3102	
T-5502-1001		Johnson	Receiver Gauge	ICI-3101	
T-5502-1002		Johnson	Receiver Gauge	ICI-3101	
T-5502-1003		Johnson	Receiver Gauge	ICI-3101	
T-5502-1004		Johnson	Receiver Gauge	ICI-3101	
T-5502-1005		Johnson	Receiver Gauge	ICI-3101	
T5800-1		Johnson	Pneumatic Receiver-Controller	CCC-1002	
T5800-3		Johnson	Pneumatic Receiver-Controller	CCC-1002	
TA-3434		Invensys	High Temp. Limit Thermostat	CTE-6001	
TC-5131		Invensys	Low Temp. Thermostat	CTE-3006	
TC5141		Invensys	Low Temp. Thermostat	CTE-3007	
TDIAP502730		Honeywell	Diff. Static Press. Air Flow Switch	CSE-1103	
TK-1001		Invensys	Pneumatic Room Thermostat	CTC-1621	
TK-1001-116		Invensys	Pneumatic Room Thermostat	CTC-1621	
TK-1001-600		Invensys	Pneumatic Room Thermostat	CTC-1621	
TK-1002		Invensys	Pneumatic Room Thermostat	CTC-1621	
TK-1101		Invensys	Pneumatic Room Thermostat	CTC-1622	
TK-1101-116		Invensys	Pneumatic Room Thermostat	CTC-1622	
TK-1101-600		Invensys	Pneumatic Room Thermostat	CTC-1622	
TK-1102		Invensys	Pneumatic Room Thermostat	CTC-1622	
TK-12		Invensys	Pneumatic Room Thermostat	CTC-1611	
TK-12-1		Invensys	Pneumatic Room Thermostat	CTC-1611	
TK-13		Invensys	Pneumatic Room Thermostat	CTC-1612	
TK-1301		Invensys	Pneumatic Room Thermostat	CTC-1643	
TK-1301-116		Invensys	Pneumatic Room Thermostat	CTC-1643	
TK-1381		Invensys	Pneumatic Room Thermostat	CTC-1644	
TK-1601		Invensys	Pneumatic Room Thermostat	CTC-1653	
TK-1601-116		Invensys	Pneumatic Room Thermostat	CTC-1653	
TK-1727		Invensys	Pneumatic Room Thermostat	CTC-1644-25	
TK-1727-116		Invensys	Pneumatic Room Thermostat	CTC-1644-25	
TK-1736		Invensys	Pneumatic Room Thermostat	CTC-1645	
TK-1741		Invensys	Pneumatic Room Thermostat	CTC-1646-25	
TK-1741-116		Invensys	Pneumatic Room Thermostat	CTC-1646-25	
TK-1741-600		Invensys	Pneumatic Room Thermostat	CTC-1645	
TK-18		Invensys	Pneumatic Room Thermostat	CTC-1621	
TK-1801		Invensys	Pneumatic Room Thermostat	CTC-1504-10	
TK-1801-116		Invensys	Pneumatic Room Thermostat	CTC-1504-11	
TK-1811		Invensys	Pneumatic Room Thermostat	CTC-1505-10	
TK-1811-116		Invensys	Pneumatic Room Thermostat	CTC-1505-11	
TK-19		Invensys	Pneumatic Room Thermostat	CTC-1622	
TK-19-1		Invensys	Pneumatic Room Thermostat	CTC-1622	
TK-23		Invensys	Pneumatic Room Thermostat	CTC-1643	
TK-23-1		Invensys	Pneumatic Room Thermostat	CTC-1643	
TK-24		Invensys	Pneumatic Room Thermostat	CTC-1644	
TK-24-1		Invensys	Pneumatic Room Thermostat	CTC-1644	
TK-27		Invensys	Pneumatic Room Thermostat	CTC-1653	
TK-27-1		Invensys	Pneumatic Room Thermostat	CTC-1653	
TK-3001		Invensys	Unit Mount Thermostat	CTC-4001	
TK-32		Invensys	Pneumatic Room Thermostat	CTC-1645	
TK-32-1		Invensys	Pneumatic Room Thermostat	CTC-1645	
TK-32-321		Invensys	Pneumatic Room Thermostat	CTC-1645	
TK-33		Invensys	Pneumatic Room Thermostat	CTC-1646-25	

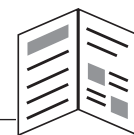


Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
TK-35		Invensys	Pneumatic Room Thermostat	CTC-1504-10	
TK-36		Invensys	Pneumatic Room Thermostat	CTC-1505-10	
TK-5001		Invensys	Pneumatic Room Thermostat	CTC-1611	
TK-5001-116		Invensys	Pneumatic Room Thermostat	CTC-1611	
TK-5002		Invensys	Pneumatic Room Thermostat	CTC-1611	
TK-50501		Invensys	Pneumatic Room Thermostat	CTC-1004-10	
TK-50511		Invensys	Pneumatic Room Thermostat	CTC-1006-10	
TK-5101		Invensys	Pneumatic Room Thermostat	CTC-1612	
TK-5101-116		Invensys	Pneumatic Room Thermostat	CTC-1612	
TK-5102		Invensys	Pneumatic Room Thermostat	CTC-1612	
TK-51501		Invensys	Pneumatic Room Thermostat	CTC-1003-10	
TK-51511		Invensys	Pneumatic Room Thermostat	CTC-1005-10	
TKR-1001		Invensys	Pneumatic Room Thermostat	CTC-1621	
TKR-1001-116		Invensys	Pneumatic Room Thermostat	CTC-1621	
TKR-1101		Invensys	Pneumatic Room Thermostat	CTC-1622	
TKR-1101-116		Invensys	Pneumatic Room Thermostat	CTC-1622	
TKR-12		Invensys	Pneumatic Room Thermostat	CTC-1611	
TKR-13		Invensys	Pneumatic Room Thermostat	CTC-1612	
TKR-13-1		Invensys	Pneumatic Room Thermostat	CTC-1612	
TKR-1601		Invensys	Pneumatic Room Thermostat	CTC-1653	
TKR-18		Invensys	Pneumatic Room Thermostat	CTC-1621	
TKR-18-91		Invensys	Pneumatic Room Thermostat	CTC-1621	
TKR-19		Invensys	Pneumatic Room Thermostat	CTC-1622	
TKR-19-91		Invensys	Pneumatic Room Thermostat	CTC-1622	
TKR-5001		Invensys	Pneumatic Room Thermostat	CTC-1611	
TKR-5001-116		Invensys	Pneumatic Room Thermostat	CTC-1611	
TKR-5101		Invensys	Pneumatic Room Thermostat	CTC-1612	
TKR-5101-116		Invensys	Pneumatic Room Thermostat	CTC-1612	
TKS-4014		Invensys	Temperature Transmitter	TTC-2003	
TKS-5001		Invensys	Temperature Transmitter	TTC-3001	
TKS-8014		Invensys	Temperature Transmitter	TTC-1003	
TKS-8033		Invensys	Temperature Transmitter	TTC-1006	
TO900A		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TO901A		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TO901B		Honeywell	Pneumatic Room Thermostat	CTC-1612	
TO91A		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TO931B		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TO93A		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TO93C		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP900A		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP901B		Honeywell	Pneumatic Room Thermostat	CTC-1612	
TP901C		Honeywell	Pneumatic Room Thermostat	CTC-1611	
TP910A		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP910B		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP923A		Honeywell	Pneumatic Room Thermostat	CTC-1611	
TP923B		Honeywell	Pneumatic Room Thermostat	CTC-1612	
TP931B		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP932B		Honeywell	Pneumatic Room Thermostat	CTC-1612	
TP93A		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP9702008		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP970A		Honeywell	Pneumatic Room Thermostat	CTC-1621-103	
TP970A1002		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A1004		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A1012		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A1038		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A1053		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A1061		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A2004		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A2012		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A2020		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A2038		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A2053		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A2087		Honeywell	Pneumatic Room Thermostat	CTC-1621	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
TP970A2095		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A2129		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A2145		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A2190		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP970A2242		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A2267		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970A2275		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP970B		Honeywell	Pneumatic Room Thermostat	CTC-1622-103	
TP970B1002		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP970B1028		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP970B1036		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP970B1044		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP970B2002		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP970B2010		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP970B2028		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP970B2036		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP970B2069		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP970B2077		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP970B2166		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP970B2182		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP970B2208		Honeywell	Pneumatic Room Thermostat	CTC-1622	
TP970C1000		Honeywell	Pneumatic Room Thermostat	CTC-1003-10	
TP970C2000		Honeywell	Pneumatic Room Thermostat	CTC-1621	
TP971A1003		Honeywell	Pneumatic Room Thermostat	CTC-1643-23	
TP971A1029		Honeywell	Pneumatic Room Thermostat	CTC-1643-23	
TP971A1037		Honeywell	Pneumatic Room Thermostat	CTC-1643-23	
TP971A1045		Honeywell	Pneumatic Room Thermostat	CTC-1611	
TP971A1045		Honeywell	Pneumatic Room Thermostat	CTC-1643-23	
TP971A1086		Honeywell	Pneumatic Room Thermostat	CTC-1643-23	
TP971A2003		Honeywell	Pneumatic Room Thermostat	CTC-1643-23	
TP971A2029		Honeywell	Pneumatic Room Thermostat	CTC-1643	
TP971A2037		Honeywell	Pneumatic Room Thermostat	CTC-1643-23	
TP971A2045		Honeywell	Pneumatic Room Thermostat	CTC-1643	
TP971A2086		Honeywell	Pneumatic Room Thermostat	CTC-1643	
TP971A2102		Honeywell	Pneumatic Room Thermostat	CTC-1643-23	
TP971A2183		Honeywell	Pneumatic Room Thermostat	CTC-1643-23	
TP971A2191		Honeywell	Pneumatic Room Thermostat	CTC-1643-23	
TP971A2209		Honeywell	Pneumatic Room Thermostat	CTC-1643-23	
TP971A2217		Honeywell	Pneumatic Room Thermostat	CTC-1643-23	
TP971B1001		Honeywell	Pneumatic Room Thermostat	CTC-1644	
TP971B2001		Honeywell	Pneumatic Room Thermostat	CTC-1644	
TP971B2019		Honeywell	Pneumatic Room Thermostat	CTC-1644	
TP971B2043		Honeywell	Pneumatic Room Thermostat	CTC-1644	
TP971B2068		Honeywell	Pneumatic Room Thermostat	CTC-1643-23	
TP971B2074		Honeywell	Pneumatic Room Thermostat	CTC-1643-23	
TP971C1009		Honeywell	Pneumatic Room Thermostat	CTC-1653	
TP971C1025		Honeywell	Pneumatic Room Thermostat	CTC-1653	
TP971C2009		Honeywell	Pneumatic Room Thermostat	CTC-1653	
TP971C2025		Honeywell	Pneumatic Room Thermostat	CTC-1653	
TP971C2058		Honeywell	Pneumatic Room Thermostat	CTC-1653	
TP972A2036		Honeywell	Pneumatic Room Thermostat	CTC-1645	
TP972A2168		Honeywell	Pneumatic Room Thermostat	CTC-1643	
TP972A2176		Honeywell	Pneumatic Room Thermostat	CTC-1645	
TP972A2218		Honeywell	Pneumatic Room Thermostat	CTC-1645	
TP973A1068		Honeywell	Pneumatic Room Thermostat	CTC-1611	
TP973A1076		Honeywell	Pneumatic Room Thermostat	CTC-1611	
TP973A1092		Honeywell	Pneumatic Room Thermostat	CTC-1611	
TP973A2068		Honeywell	Pneumatic Room Thermostat	CTC-1611	
TP973A2076		Honeywell	Pneumatic Room Thermostat	CTC-1611	
TP973A2092		Honeywell	Pneumatic Room Thermostat	CTC-1611	
TP973A2215		Honeywell	Pneumatic Room Thermostat	CTC-1611	
TP973B1006		Honeywell	Pneumatic Room Thermostat	CTC-1612	
TP973B1066		Honeywell	Pneumatic Room Thermostat	CTC-1612	
TP973B2066		Honeywell	Pneumatic Room Thermostat	CTC-1612	
TP973B2171		Honeywell	Pneumatic Room Thermostat	CTC-1612	



Reference

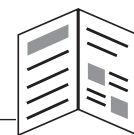
Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
TP973B2189		Honeywell	Pneumatic Room Thermostat	CTC-1612	
TP978A1006		Honeywell	Pneumatic Room Thermostat	CTC-1003-10	
TP979A2005		Honeywell	Pneumatic Room Thermostat	CTC-1504-10	
TP979A2013		Honeywell	Pneumatic Room Thermostat	CTC-1504-10	
TP979B2003		Honeywell	Pneumatic Room Thermostat	CTC-1505-10	
TP979C2001		Honeywell	Pneumatic Room Thermostat	CTC-1506-10	
TP979C2019		Honeywell	Pneumatic Room Thermostat	CTC-1506-10	

Vxxxxx

V1000-25404	Invensys	Pneumatic Valve	*VCP-42330261
V1000-25407	Invensys	Pneumatic Valve	*VCP-42330262
V1000-25419	Invensys	Pneumatic Valve	*VCP-42330260
V1000-25604	Invensys	Pneumatic Valve	*VCP-41330261
V1000-25607	Invensys	Pneumatic Valve	*VCP-41330262
V1000-25619	Invensys	Pneumatic Valve	*VCP-41330260
V1000-30404	Invensys	Pneumatic Valve	*VCP-42340261
V1000-30407	Invensys	Pneumatic Valve	*VCP-42340262
V1000-30419	Invensys	Pneumatic Valve	*VCP-42340260
V1000-30604	Invensys	Pneumatic Valve	*VCP-41340261
V1000-30607	Invensys	Pneumatic Valve	*VCP-41340262
V1000-30619	Invensys	Pneumatic Valve	*VCP-41340260
V1000-35404	Invensys	Pneumatic Valve	*VCP-42350261
V1000-35407	Invensys	Pneumatic Valve	*VCP-42350262
V1000-35419	Invensys	Pneumatic Valve	*VCP-42350260
V1000-35604	Invensys	Pneumatic Valve	*VCP-41350261
V1000-35607	Invensys	Pneumatic Valve	*VCP-41350262
V1000-35619	Invensys	Pneumatic Valve	*VCP-41350260
V1000-40404	Invensys	Pneumatic Valve	*VCP-42360261
V1000-40407	Invensys	Pneumatic Valve	*VCP-42360262
V1000-40419	Invensys	Pneumatic Valve	*VCP-42360260
V1000-40604	Invensys	Pneumatic Valve	*VCP-41360261
V1000-40607	Invensys	Pneumatic Valve	*VCP-41360262
V1000-40619	Invensys	Pneumatic Valve	*VCP-41360260
V1000-45404	Invensys	Pneumatic Valve	*VCP-51701271
V1000-45407	Invensys	Pneumatic Valve	*VCP-51701272
V1000-45419	Invensys	Pneumatic Valve	*VCP-51701270
V1000-45604	Invensys	Pneumatic Valve	*VCP-52701271
V1000-45607	Invensys	Pneumatic Valve	*VCP-52701272
V1000-45619	Invensys	Pneumatic Valve	*VCP-52701270
V1000-51404	Invensys	Pneumatic Valve	*VCP-51711271
V1000-51407	Invensys	Pneumatic Valve	*VCP-51711272
V1000-51419	Invensys	Pneumatic Valve	*VCP-51711270
V1000-51604	Invensys	Pneumatic Valve	*VCP-52711271
V1000-51607	Invensys	Pneumatic Valve	*VCP-52711272
V1000-51619	Invensys	Pneumatic Valve	*VCP-52711270
V1000-55404	Invensys	Pneumatic Valve	*VCP-51721271
V1000-55407	Invensys	Pneumatic Valve	*VCP-51721272
V1000-55419	Invensys	Pneumatic Valve	*VCP-51721270
V1000-55604	Invensys	Pneumatic Valve	*VCP-52721271
V1000-55607	Invensys	Pneumatic Valve	*VCP-52721272
V1000-55619	Invensys	Pneumatic Valve	*VCP-52721270
V1002-25404	Invensys	Pneumatic Valve	*VCP-42330261
V1002-25407	Invensys	Pneumatic Valve	*VCP-42330262
V1002-25419	Invensys	Pneumatic Valve	*VCP-42330260
V1002-25604	Invensys	Pneumatic Valve	*VCP-41330261
V1002-25607	Invensys	Pneumatic Valve	*VCP-41330262
V1002-25619	Invensys	Pneumatic Valve	*VCP-41330260
V1002-30404	Invensys	Pneumatic Valve	*VCP-42340261
V1002-30407	Invensys	Pneumatic Valve	*VCP-42340262
V1002-30419	Invensys	Pneumatic Valve	*VCP-42340260
V1002-30604	Invensys	Pneumatic Valve	*VCP-41340261
V1002-30607	Invensys	Pneumatic Valve	*VCP-41340262
V1002-30619	Invensys	Pneumatic Valve	*VCP-41340260
V1002-35404	Invensys	Pneumatic Valve	*VCP-42350261



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
V1002-35407		Invensys	Pneumatic Valve	*VCP-42350262	
V1002-35419		Invensys	Pneumatic Valve	*VCP-42350260	
V1002-35604		Invensys	Pneumatic Valve	*VCP-41350261	
V1002-35607		Invensys	Pneumatic Valve	*VCP-41350262	
V1002-35619		Invensys	Pneumatic Valve	*VCP-41350260	
V1002-40404		Invensys	Pneumatic Valve	*VCP-42360261	
V1002-40407		Invensys	Pneumatic Valve	*VCP-42360262	
V1002-40419		Invensys	Pneumatic Valve	*VCP-42360260	
V1002-40604		Invensys	Pneumatic Valve	*VCP-41360261	
V1002-40607		Invensys	Pneumatic Valve	*VCP-41360262	
V1002-40619		Invensys	Pneumatic Valve	*VCP-41360260	
V1002-45404		Invensys	Pneumatic Valve	*VCP-51701271	
V1002-45407		Invensys	Pneumatic Valve	*VCP-51701272	
V1002-45419		Invensys	Pneumatic Valve	*VCP-51701270	
V1002-45503		Invensys	Pneumatic Valve	*VCP-51701711	
V1002-45517		Invensys	Pneumatic Valve	*VCP-51701712	
V1002-45519		Invensys	Pneumatic Valve	*VCP-51701710	
V1002-45604		Invensys	Pneumatic Valve	*VCP-52701271	
V1002-45607		Invensys	Pneumatic Valve	*VCP-52701272	
V1002-45619		Invensys	Pneumatic Valve	*VCP-52701270	
V1002-51404		Invensys	Pneumatic Valve	*VCP-51711271	
V1002-51407		Invensys	Pneumatic Valve	*VCP-51711272	
V1002-51419		Invensys	Pneumatic Valve	*VCP-51711270	
V1002-51503		Invensys	Pneumatic Valve	*VCP-51711711	
V1002-51517		Invensys	Pneumatic Valve	*VCP-51711712	
V1002-51519		Invensys	Pneumatic Valve	*VCP-51711710	
V1002-51604		Invensys	Pneumatic Valve	*VCP-52711271	
V1002-51607		Invensys	Pneumatic Valve	*VCP-52711272	
V1002-51619		Invensys	Pneumatic Valve	*VCP-52711270	
V1002-55404		Invensys	Pneumatic Valve	*VCP-51721271	
V1002-55407		Invensys	Pneumatic Valve	*VCP-51721272	
V1002-55419		Invensys	Pneumatic Valve	*VCP-51721270	
V1002-55503		Invensys	Pneumatic Valve	*VCP-51721711	
V1002-55517		Invensys	Pneumatic Valve	*VCP-51721712	
V1002-55519		Invensys	Pneumatic Valve	*VCP-51721710	
V1002-55604		Invensys	Pneumatic Valve	*VCP-52721271	
V1002-55607		Invensys	Pneumatic Valve	*VCP-52721272	
V1002-55619		Invensys	Pneumatic Valve	*VCP-52721270	
V11HAA-100		Johnson	EP Switch	VEC-1022	
V11HBA-100		Johnson	EP Switch	VEC-1023	
V11HCA-100		Johnson	EP Switch	VEC-1026	
V11HDA-100		Johnson	EP Switch	VEC-1036	
V11HGA-100		Johnson	EP Switch	VEC-1021	
V2410-1		Johnson	EP Switch	VEC-1021	
V2410-2		Johnson	EP Switch	VEC-1022	
V2410-3		Johnson	EP Switch	VEC-1026	
V2410-4		Johnson	EP Switch	VEC-1023	
V2410-6		Johnson	EP Switch	VEC-1037	
V2410-8		Johnson	EP Switch	VEC-1011	
V-3754-1022		Johnson	Pneumatic Valve	*VCP-41320251	
V-3754-1023		Johnson	Pneumatic Valve	*VCP-41330251	
V-3974-1004		Johnson	Pneumatic Valve	*VCP-42310251	
V-4324-1005		Johnson	Pneumatic Valve	*VCP-43320251	
V-4324-1007		Johnson	Pneumatic Valve	*VCP-43330251	
V5011A1163	MP953C1000	Honeywell	Pneumatic Valve	*VCP-41320260	
V5011A1163	MP953C1018	Honeywell	Pneumatic Valve	*VCP-41320260	
V5011A1163	MP953C1026	Honeywell	Pneumatic Valve	*VCP-41320260	
V5011A1163	MP953D1107	Honeywell	Pneumatic Valve	*VCP-42320260	
V5011A1163	MP953D1131	Honeywell	Pneumatic Valve	*VCP-42320260	
V5011A1163	MP953E1301	Honeywell	Pneumatic Valve	*VCP-41320260	
V5011A1163	MP953E1319	Honeywell	Pneumatic Valve	*VCP-41320260	
V5011A1163	MP953E1327	Honeywell	Pneumatic Valve	*VCP-41320260	



Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
V5011A1164	MP953F1093	Honeywell	Pneumatic Valve	*VCP-4230261	
V5011A1164	MP953F1101	Honeywell	Pneumatic Valve	*VCP-4230262	
V5011A1164	MP953F1119	Honeywell	Pneumatic Valve	*VCP-4230263	
V5011A1221	MP953C1000	Honeywell	Pneumatic Valve	*VCP-41330260	
V5011A1221	MP953C1018	Honeywell	Pneumatic Valve	*VCP-41330260	
V5011A1221	MP953C1026	Honeywell	Pneumatic Valve	*VCP-41330260	
V5011A1221	MP953D1107	Honeywell	Pneumatic Valve	*VCP-42330260	
V5011A1221	MP953D1131	Honeywell	Pneumatic Valve	*VCP-42330260	
V5011A1221	MP953E1301	Honeywell	Pneumatic Valve	*VCP-41330260	
V5011A1221	MP953E1319	Honeywell	Pneumatic Valve	*VCP-41330260	
V5011A1221	MP953E1327	Honeywell	Pneumatic Valve	*VCP-41330260	
V5011A1221	MP953F1093	Honeywell	Pneumatic Valve	*VCP-42330260	
V5011A1221	MP953F1101	Honeywell	Pneumatic Valve	*VCP-42330260	
V5011A1221	MP953F1119	Honeywell	Pneumatic Valve	*VCP-42330260	
V5011A1288	MP953C1000	Honeywell	Pneumatic Valve	*VCP-41340260	
V5011A1288	MP953C1018	Honeywell	Pneumatic Valve	*VCP-41340260	
V5011A1288	MP953C1026	Honeywell	Pneumatic Valve	*VCP-41340260	
V5011A1288	MP953D1107	Honeywell	Pneumatic Valve	*VCP-42340260	
V5011A1288	MP953D1131	Honeywell	Pneumatic Valve	*VCP-42340260	
V5011A1288	MP953E1301	Honeywell	Pneumatic Valve	*VCP-41340260	
V5011A1288	MP953E1319	Honeywell	Pneumatic Valve	*VCP-41340260	
V5011A1288	MP953E1327	Honeywell	Pneumatic Valve	*VCP-41340260	
V5011A1288	MP953F1093	Honeywell	Pneumatic Valve	*VCP-42340260	
V5011A1288	MP953F1101	Honeywell	Pneumatic Valve	*VCP-42340260	
V5011A1288	MP953F1119	Honeywell	Pneumatic Valve	*VCP-42340260	
V5011A1395	MP953C1000	Honeywell	Pneumatic Valve	*VCP-41360260	
V5011A1395	MP953C1018	Honeywell	Pneumatic Valve	*VCP-41360260	
V5011A1395	MP953C1026	Honeywell	Pneumatic Valve	*VCP-41360260	
V5011A1395	MP953C1067	Honeywell	Pneumatic Valve	*VCP-41360260	
V5011A1395	MP953C1075	Honeywell	Pneumatic Valve	*VCP-41360260	
V5011A1395	MP953C1083	Honeywell	Pneumatic Valve	*VCP-41360260	
V5011A1395	MP953D1107	Honeywell	Pneumatic Valve	*VCP-42360260	
V5011A1395	MP953D1131	Honeywell	Pneumatic Valve	*VCP-42360260	
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V5011A1395	MP953E1293	Honeywell	Pneumatic Valve	*VCP-41360260	
V5011A1395	MP953E1301	Honeywell	Pneumatic Valve	*VCP-41360260	
V5011A1395	MP953E1319	Honeywell	Pneumatic Valve	*VCP-41360260	
V5011A1395	MP953E1327	Honeywell	Pneumatic Valve	*VCP-41360260	
V5011A1395	MP953E1368	Honeywell	Pneumatic Valve	*VCP-41360260	
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V5011A1395	MP953E1384	Honeywell	Pneumatic Valve	*VCP-41360260	
V5011A1395	MP953F1093	Honeywell	Pneumatic Valve	*VCP-42360260	
V5011A1395	MP953F1101	Honeywell	Pneumatic Valve	*VCP-42360260	
V5011A1395	MP953F1119	Honeywell	Pneumatic Valve	*VCP-42360260	
V5011A1460	MP953C1067	Honeywell	Pneumatic Valve	*VCP-51701270	
V5011A1460	MP953C1075	Honeywell	Pneumatic Valve	*VCP-51701270	
V5011A1460	MP953C1083	Honeywell	Pneumatic Valve	*VCP-51701270	
V5011A1460	MP953D1107	Honeywell	Pneumatic Valve	*VCP-52701270	
V5011A1460	MP953D1131	Honeywell	Pneumatic Valve	*VCP-52701270	
V5011A1460	MP953E1277	Honeywell	Pneumatic Valve	*VCP-51701270	
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V5011A1460	MP953E1376	Honeywell	Pneumatic Valve	*VCP-51701270	
V5011A1460	MP953E1384	Honeywell	Pneumatic Valve	*VCP-51701270	
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V5011A1460	MP953F1101	Honeywell	Pneumatic Valve	*VCP-52701270	
V5011A1460	MP953F1119	Honeywell	Pneumatic Valve	*VCP-52701270	
V5011A1528	MP953C1067	Honeywell	Pneumatic Valve	*VCP-51711270	
V5011A1528	MP953C1075	Honeywell	Pneumatic Valve	*VCP-51711270	
V5011A1528	MP953C1083	Honeywell	Pneumatic Valve	*VCP-51711270	
V5011A1528	MP953D1107	Honeywell	Pneumatic Valve	*VCP-52721710	
V5011A1528	MP953D1131	Honeywell	Pneumatic Valve	*VCP-52721710	
V5011A1528	MP953E1277	Honeywell	Pneumatic Valve	*VCP-51711270	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
V5011A1528	MP953E1285	Honeywell	Pneumatic Valve	*VCP-51711270	
V5011A1528	MP953E1293	Honeywell	Pneumatic Valve	*VCP-51711270	
V5011A1528	MP953E1368	Honeywell	Pneumatic Valve	*VCP-51711270	
V5011A1528	MP953E1376	Honeywell	Pneumatic Valve	*VCP-51711270	
V5011A1528	MP953F1093	Honeywell	Pneumatic Valve	*VCP-52711710	
V5011A1528	MP953F1119	Honeywell	Pneumatic Valve	*VCP-52711710	
V5011A1767	MP953C1067	Honeywell	Pneumatic Valve	*VCP-51711270	
V5011A1767	MP953C1075	Honeywell	Pneumatic Valve	*VCP-51711270	
V5011A1767	MP953C1083	Honeywell	Pneumatic Valve	*VCP-51711270	
V5011A1767	MP953D1107	Honeywell	Pneumatic Valve	*VCP-52721710	
V5011A1767	MP953D1131	Honeywell	Pneumatic Valve	*VCP-52721710	
V5011A1767	MP953E1277	Honeywell	Pneumatic Valve	*VCP-51711270	
V5011A1767	MP953E1285	Honeywell	Pneumatic Valve	*VCP-51711270	
V5011A1767	MP953E1293	Honeywell	Pneumatic Valve	*VCP-51711270	
V5011A1767	MP953E1368	Honeywell	Pneumatic Valve	*VCP-51711270	
V5011A1767	MP953E1376	Honeywell	Pneumatic Valve	*VCP-51711270	
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V5011A1767	MP953F1101	Honeywell	Pneumatic Valve	*VCP-52711271	
V5011A1767	MP953F1119	Honeywell	Pneumatic Valve	*VCP-52711272	
V5011A1858	MP953C1471	Honeywell	Pneumatic Valve	*VCP-51721710	
V5011A1858	MP953C1489	Honeywell	Pneumatic Valve	*VCP-51721710	
V5011A1858	MP953E1392	Honeywell	Pneumatic Valve	*VCP-51721710	
V5011A1858	MP953E1400	Honeywell	Pneumatic Valve	*VCP-51721710	
V5011A1858	MP953E1418	Honeywell	Pneumatic Valve	*VCP-51721710	
V5011A1882	MP953C1471	Honeywell	Pneumatic Valve	*VCP-51731710	
V5011A1882	MP953C1489	Honeywell	Pneumatic Valve	*VCP-51731710	
V5011A1882	MP953E1392	Honeywell	Pneumatic Valve	*VCP-51731710	
V5011A1882	MP953E1400	Honeywell	Pneumatic Valve	*VCP-51731710	
V5011A1882	MP953E1418	Honeywell	Pneumatic Valve	*VCP-51731710	
V5011A1916	MP953C1471	Honeywell	Pneumatic Valve	*VCP-51741710	
V5011A1916	MP953C1489	Honeywell	Pneumatic Valve	*VCP-51741710	
V5011A1916	MP953E1392	Honeywell	Pneumatic Valve	*VCP-51741710	
V5011A1916	MP953E1400	Honeywell	Pneumatic Valve	*VCP-51741710	
V5011A1916	MP953E1418	Honeywell	Pneumatic Valve	*VCP-51741710	
V5011A346	MP953C1000	Honeywell	Pneumatic Valve	*VCP-41350260	
V5011A346	MP953C1018	Honeywell	Pneumatic Valve	*VCP-41350260	
V5011A346	MP953C1026	Honeywell	Pneumatic Valve	*VCP-41350260	
V5011A346	MP953C1067	Honeywell	Pneumatic Valve	*VCP-41350260	
V5011A346	MP953C1075	Honeywell	Pneumatic Valve	*VCP-41350260	
V5011A346	MP953C1083	Honeywell	Pneumatic Valve	*VCP-41350260	
V5011A346	MP953D1107	Honeywell	Pneumatic Valve	*VCP-42350260	
V5011A346	MP953D1131	Honeywell	Pneumatic Valve	*VCP-42350260	
V5011A346	MP953E1277	Honeywell	Pneumatic Valve	*VCP-41350260	
V5011A346	MP953E1285	Honeywell	Pneumatic Valve	*VCP-41350260	
V5011A346	MP953E1293	Honeywell	Pneumatic Valve	*VCP-41350260	
V5011A346	MP953E1301	Honeywell	Pneumatic Valve	*VCP-41350260	
V5011A346	MP953E1319	Honeywell	Pneumatic Valve	*VCP-41350260	
V5011A346	MP953E1327	Honeywell	Pneumatic Valve	*VCP-41350260	
V5011A346	MP953E1368	Honeywell	Pneumatic Valve	*VCP-41350260	
V5011A346	MP953E1376	Honeywell	Pneumatic Valve	*VCP-41350260	
V5011A346	MP953E1384	Honeywell	Pneumatic Valve	*VCP-41350260	
V5011A346	MP953F1093	Honeywell	Pneumatic Valve	*VCP-42350260	
V5011A346	MP953F1101	Honeywell	Pneumatic Valve	*VCP-42350260	
V5011A346	MP953F1119	Honeywell	Pneumatic Valve	*VCP-42350260	
V5011B1013	MP953C1471	Honeywell	Pneumatic Valve	*VCP-52721710	
V5011B1013	MP953C1489	Honeywell	Pneumatic Valve	*VCP-52721710	
V5011B1013	MP953E1392	Honeywell	Pneumatic Valve	*VCP-52721710	
V5011B1013	MP953E1400	Honeywell	Pneumatic Valve	*VCP-52721710	
V5011B1013	MP953E1418	Honeywell	Pneumatic Valve	*VCP-52721710	
V5011B1047	MP953C1489	Honeywell	Pneumatic Valve	*VCP-52731710	
V5011B1047	MP953E1392	Honeywell	Pneumatic Valve	*VCP-52731710	
V5011B1047	MP953E1400	Honeywell	Pneumatic Valve	*VCP-52731710	
V5011B1047	MP953E1418	Honeywell	Pneumatic Valve	*VCP-52731710	
V5011B1070	MP953C1471	Honeywell	Pneumatic Valve	*VCP-52741710	



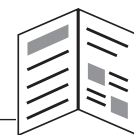
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Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
V5011B1070	MP953C1489	Honeywell	Pneumatic Valve	*VCP-52741710	
V5011B1070	MP953E1392	Honeywell	Pneumatic Valve	*VCP-52741710	
V5011B1070	MP953E1400	Honeywell	Pneumatic Valve	*VCP-52741710	
V5011B1070	MP953E1418	Honeywell	Pneumatic Valve	*VCP-52741710	
V5011F1101	MP953F1101	Honeywell	Pneumatic Valve	*VCP-52711710	
V5011V1047	MP953C1471	Honeywell	Pneumatic Valve	*VCP-52731710	
V5013A1005	MP953C1000	Honeywell	Pneumatic Valve	*VCP-43310251	
V5013A1005	MP953C1067	Honeywell	Pneumatic Valve	*VCP-43310260	
V5013A1005	MP953C1075	Honeywell	Pneumatic Valve	*VCP-43310260	
V5013A1005	MP953C1083	Honeywell	Pneumatic Valve	*VCP-43310260	
V5013A1005	MP953D1107	Honeywell	Pneumatic Valve	*VCP-43310260	
V5013A1005	MP953D1131	Honeywell	Pneumatic Valve	*VCP-43310260	
V5013A1005	MP953E1277	Honeywell	Pneumatic Valve	*VCP-43310260	
V5013A1005	MP953E1285	Honeywell	Pneumatic Valve	*VCP-43310260	
V5013A1005	MP953E1293	Honeywell	Pneumatic Valve	*VCP-43310260	
V5013A1005	MP953E1301	Honeywell	Pneumatic Valve	*VCP-43310260	
V5013A1005	MP953E1319	Honeywell	Pneumatic Valve	*VCP-43310260	
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V5013A1005	MP953E1368	Honeywell	Pneumatic Valve	*VCP-43310260	
V5013A1005	MP953E1376	Honeywell	Pneumatic Valve	*VCP-43310260	
V5013A1005	MP953E1384	Honeywell	Pneumatic Valve	*VCP-43310260	
V5013A1005	MP953F1101	Honeywell	Pneumatic Valve	*VCP-43310260	
V5013A1005	MP953F1119	Honeywell	Pneumatic Valve	*VCP-43310260	
V5013A1021	MP953C1000	Honeywell	Pneumatic Valve	*VCP-43320251	
V5013A1021	MP953C1067	Honeywell	Pneumatic Valve	*VCP-43320260	
V5013A1021	MP953C1075	Honeywell	Pneumatic Valve	*VCP-43320260	
V5013A1021	MP953C1083	Honeywell	Pneumatic Valve	*VCP-43320260	
V5013A1021	MP953D1107	Honeywell	Pneumatic Valve	*VCP-43320260	
V5013A1021	MP953D1131	Honeywell	Pneumatic Valve	*VCP-43320260	
V5013A1021	MP953E1277	Honeywell	Pneumatic Valve	*VCP-43320260	
V5013A1021	MP953E1285	Honeywell	Pneumatic Valve	*VCP-43320260	
V5013A1021	MP953E1293	Honeywell	Pneumatic Valve	*VCP-43320260	
V5013A1021	MP953E1301	Honeywell	Pneumatic Valve	*VCP-43320260	
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V5013A1039	MP953C1000	Honeywell	Pneumatic Valve	*VCP-43330251	
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V5013A1039	MP953C1075	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1039	MP953C1083	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1039	MP953D1107	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1039	MP953D1131	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1039	MP953E1277	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1039	MP953E1285	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1039	MP953E1293	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1039	MP953E1301	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1039	MP953E1327	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1039	MP953E1368	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1039	MP953E1376	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1039	MP953E1384	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1039	MP953F1093	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1039	MP953F1101	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1039	MP953F1119	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1039	MP953F1319	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013A1047	MP953C1000	Honeywell	Pneumatic Valve	*VCP-43340251	
V5013A1047	MP953C1067	Honeywell	Pneumatic Valve	*VCP-43340260	
V5013A1047	MP953C1075	Honeywell	Pneumatic Valve	*VCP-43340260	
V5013A1047	MP953C1083	Honeywell	Pneumatic Valve	*VCP-43340260	
V5013A1047	MP953D1107	Honeywell	Pneumatic Valve	*VCP-43340260	
V5013A1047	MP953D1131	Honeywell	Pneumatic Valve	*VCP-43340260	





Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
V5013F1095	MP953C1083	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013F1095	MP953D1107	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013F1095	MP953D1131	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013F1095	MP953E1277	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013F1095	MP953E1285	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013F1095	MP953E1293	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013F1095	MP953E1301	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013F1095	MP953E1319	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013F1095	MP953E1327	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013F1095	MP953E1368	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013F1095	MP953E1376	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013F1095	MP953E1384	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013F1095	MP953F1093	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013F1095	MP953F1101	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013F1095	MP953F1119	Honeywell	Pneumatic Valve	*VCP-43330260	
V5013F1103	MP953C1000	Honeywell	Pneumatic Valve	*VCP-43340251	
V5013F1111	MP953C1000	Honeywell	Pneumatic Valve	*VCP-43350251	
V5013F1111	MP953C1067	Honeywell	Pneumatic Valve	*VCP-43350260	
V5013F1111	MP953C1075	Honeywell	Pneumatic Valve	*VCP-43350260	
V5013F1111	MP953C1083	Honeywell	Pneumatic Valve	*VCP-43350260	
V5013F1111	MP953D1107	Honeywell	Pneumatic Valve	*VCP-43350260	
V5013F1111	MP953D1131	Honeywell	Pneumatic Valve	*VCP-43350260	
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V5013F1111	MP953E1293	Honeywell	Pneumatic Valve	*VCP-43350260	
V5013F1111	MP953E1301	Honeywell	Pneumatic Valve	*VCP-43350260	
V5013F1111	MP953E1319	Honeywell	Pneumatic Valve	*VCP-43350260	
V5013F1111	MP953E1327	Honeywell	Pneumatic Valve	*VCP-43350260	
V5013F1111	MP953E1368	Honeywell	Pneumatic Valve	*VCP-43350260	
V5013F1111	MP953E1376	Honeywell	Pneumatic Valve	*VCP-43350260	
V5013F1111	MP953E13843	Honeywell	Pneumatic Valve	*VCP-43350260	
V5013F1111	MP953F1093	Honeywell	Pneumatic Valve	*VCP-43350260	
V5013F1111	MP953F1101	Honeywell	Pneumatic Valve	*VCP-43350260	
V5013F1111	MP953F1119	Honeywell	Pneumatic Valve	*VCP-43350260	
V5013F1129	MP953C1000	Honeywell	Pneumatic Valve	*VCP-43360251	
V5013F1129	MP953C1067	Honeywell	Pneumatic Valve	*VCP-43360260	
V5013F1129	MP953C1075	Honeywell	Pneumatic Valve	*VCP-43360260	
V5013F1129	MP953C1083	Honeywell	Pneumatic Valve	*VCP-43360260	
V5013F1129	MP953D1107	Honeywell	Pneumatic Valve	*VCP-43360260	
V5013F1129	MP953D1131	Honeywell	Pneumatic Valve	*VCP-43360260	
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V5013F1129	MP953E1285	Honeywell	Pneumatic Valve	*VCP-43360260	
V5013F1129	MP953E1293	Honeywell	Pneumatic Valve	*VCP-43360260	
V5013F1129	MP953E1301	Honeywell	Pneumatic Valve	*VCP-43360260	
V5013F1129	MP953E1319	Honeywell	Pneumatic Valve	*VCP-43360260	
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V5013F1129	MP953E1368	Honeywell	Pneumatic Valve	*VCP-43360260	
V5013F1129	MP953E1376	Honeywell	Pneumatic Valve	*VCP-43360260	
V5013F1129	MP953E13843	Honeywell	Pneumatic Valve	*VCP-43360260	
V5013F1129	MP953F1093	Honeywell	Pneumatic Valve	*VCP-43360260	
V5013F1129	MP953F1101	Honeywell	Pneumatic Valve	*VCP-43360260	
V5013F1129	MP953F1119	Honeywell	Pneumatic Valve	*VCP-43360260	
V5013N1030	ML6425A3022	Honeywell	Electric Valve	*VEP-43310875	
V5013N1055	ML6425A3022	Honeywell	Electric Valve	*VEP-43320875	
V5013N1063	ML6425A3022	Honeywell	Electric Valve	*VEP-43330875	
V5013N1071	ML6425A3022	Honeywell	Electric Valve	*VEP-43340875	
V5013N1089	ML6425A3022	Honeywell	Electric Valve	*VEP-43350875	
V5013N1097	ML6425A3022	Honeywell	Electric Valve	*VEP-43360875	
V-5252-10		Johnson	Pneumatic Valve	*VCP-51711270	
V-5252-11		Johnson	Pneumatic Valve	*VCP-51711270	
V-5252-12		Johnson	Pneumatic Valve	*VCP-51711710	
V-5252-13		Johnson	Pneumatic Valve	*VCP-51711710	
V-5252-14		Johnson	Pneumatic Valve	*VCP-51701270	
V-5252-15		Johnson	Pneumatic Valve	*VCP-51721710	
V-5252-16		Johnson	Pneumatic Valve	*VCP-51721710	

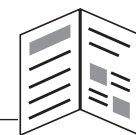


Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
V-5252-17		Johnson	Pneumatic Valve	*VCP-51731710	
V-5252-18		Johnson	Pneumatic Valve	*VCP-51731710	
V-5252-19		Johnson	Pneumatic Valve	*VCP-51741710	
V-5252-20		Johnson	Pneumatic Valve	*VCP-51741710	
V-5252-4		Johnson	Pneumatic Valve	*VCP-51701270	
V-5252-5		Johnson	Pneumatic Valve	*VCP-51701270	
V-5252-6		Johnson	Pneumatic Valve	*VCP-51701270	
V-5252-7		Johnson	Pneumatic Valve	*VCP-51701710	
V-5252-8		Johnson	Pneumatic Valve	*VCP-51701710	
V-5252-9		Johnson	Pneumatic Valve	*VCP-51711270	
V-5254-1		Johnson	Pneumatic Valve	*VCP-41350260	
V-5254-2		Johnson	Pneumatic Valve	*VCP-41350260	
V-5254-3		Johnson	Pneumatic Valve	*VCP-41350260	
V-5254-4		Johnson	Pneumatic Valve	*VCP-41360260	
V-5254-6		Johnson	Pneumatic Valve	*VCP-41360260	
V-5354-5		Johnson	Pneumatic Valve	*VCP-41360260	
V-5462-11		Johnson	Pneumatic Valve	*VCP-52721710	
V-5462-12		Johnson	Pneumatic Valve	*VCP-52721710	
V-5462-15		Johnson	Pneumatic Valve	*VCP-52731710	
V-5462-16		Johnson	Pneumatic Valve	*VCP-52731710	
V-5462-17		Johnson	Pneumatic Valve	*VCP-52741710	
V-5462-18		Johnson	Pneumatic Valve	*VCP-52741710	
V-5462-6		Johnson	Pneumatic Valve	*VCP-52701270	
V-5462-7		Johnson	Pneumatic Valve	*VCP-52701270	
V-5462-8		Johnson	Pneumatic Valve	*VCP-52721710	
V-5462-9		Johnson	Pneumatic Valve	*VCP-52711710	
V-5464-1		Johnson	Pneumatic Valve	*VCP-42350260	
V-5464-2		Johnson	Pneumatic Valve	*VCP-42350260	
V-5464-3		Johnson	Pneumatic Valve	*VCP-42360260	
V-5464-4		Johnson	Pneumatic Valve	*VCP-42360260	
V-5842-10		Johnson	Pneumatic Valve	*VCP-53631710	
V-5842-13		Johnson	Pneumatic Valve	*VCP-53641710	
V-5842-14		Johnson	Pneumatic Valve	*VCP-53651710	
V-5842-15		Johnson	Pneumatic Valve	*VCP-53651710	
V-5842-16		Johnson	Pneumatic Valve	*VCP-53651710	
V-5842-17		Johnson	Pneumatic Valve	*VCP-53631710	
V-5842-18		Johnson	Pneumatic Valve	*VCP-53631270	
V-5842-7		Johnson	Pneumatic Valve	*VCP-53621270	
V-5842-8		Johnson	Pneumatic Valve	*VCP-53621270	
V-5842-9		Johnson	Pneumatic Valve	*VCP-53631270	
V-5844-1		Johnson	Pneumatic Valve	*VCP-43350260	
V-5844-2		Johnson	Pneumatic Valve	*VCP-43350260	
V-5844-3		Johnson	Pneumatic Valve	*VCP-43350260	
V-5844-4		Johnson	Pneumatic Valve	*VCP-43360260	
V-5844-5		Johnson	Pneumatic Valve	*VCP-43360260	
V-5844-6		Johnson	Pneumatic Valve	*VCP-43360260	
V-592-6650		Johnson	Pneumatic Valve	*VCP-43360260	
V6135		Johnson	Switching Relay	RCC-1109	
V6600-04302		Invensys	Pneumatic Valve	*VCP-43310241	
V6600-04307		Invensys	Pneumatic Valve	*VCP-43310242	
V6600-04319		Invensys	Pneumatic Valve	*VCP-43310240	
V6600-15302		Invensys	Pneumatic Valve	*VCP-43320241	
V6600-15307		Invensys	Pneumatic Valve	*VCP-43320242	
V6600-15319		Invensys	Pneumatic Valve	*VCP-43320240	
V6600-25302		Invensys	Pneumatic Valve	*VCP-43330241	
V6600-25307		Invensys	Pneumatic Valve	*VCP-43330242	
V6600-25319		Invensys	Pneumatic Valve	*VCP-43330240	
V6600-30302		Invensys	Pneumatic Valve	*VCP-43340241	
V6600-30307		Invensys	Pneumatic Valve	*VCP-43340242	
V6600-30319		Invensys	Pneumatic Valve	*VCP-43340240	
V6600-35302		Invensys	Pneumatic Valve	*VCP-43350241	
V6600-35307		Invensys	Pneumatic Valve	*VCP-43350242	
V6600-35319		Invensys	Pneumatic Valve	*VCP-43350240	
V6600-40302		Invensys	Pneumatic Valve	*VCP-43360241	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
V6600-40307		Invensys	Pneumatic Valve	*VCP-43360242	
V6600-40319		Invensys	Pneumatic Valve	*VCP-43360240	
V6700-06302		Invensys	Pneumatic Valve	*VCP-42310241	
V6700-06307		Invensys	Pneumatic Valve	*VCP-42310242	
V6700-06319		Invensys	Pneumatic Valve	*VCP-42310240	
V6700-16302		Invensys	Pneumatic Valve	*VCP-42320241	
V6700-16307		Invensys	Pneumatic Valve	*VCP-42320242	
V6700-16319		Invensys	Pneumatic Valve	*VCP-42320240	
V6700-25302		Invensys	Pneumatic Valve	*VCP-42330241	
V6700-25307		Invensys	Pneumatic Valve	*VCP-42330242	
V6700-25319		Invensys	Pneumatic Valve	*VCP-42330240	
V6700-30302		Invensys	Pneumatic Valve	*VCP-42340241	
V6700-30307		Invensys	Pneumatic Valve	*VCP-42340242	
V6700-30319		Invensys	Pneumatic Valve	*VCP-42340240	
V6700-35302		Invensys	Pneumatic Valve	*VCP-42350241	
V6700-35307		Invensys	Pneumatic Valve	*VCP-42350242	
V6700-35319		Invensys	Pneumatic Valve	*VCP-42350240	
V6700-40302		Invensys	Pneumatic Valve	*VCP-42360241	
V6700-40307		Invensys	Pneumatic Valve	*VCP-42360242	
V6700-40319		Invensys	Pneumatic Valve	*VCP-42360240	
V6800-06307		Invensys	Pneumatic Valve	*VCP-41310242	
V6800-06308		Invensys	Pneumatic Valve	*VCP-41310241	
V6800-06319		Invensys	Pneumatic Valve	*VCP-41310240	
V6800-16307		Invensys	Pneumatic Valve	*VCP-41320242	
V6800-16308		Invensys	Pneumatic Valve	*VCP-41320241	
V6800-16319		Invensys	Pneumatic Valve	*VCP-41320240	
V6800-25307		Invensys	Pneumatic Valve	*VCP-41330242	
V6800-25308		Invensys	Pneumatic Valve	*VCP-41330241	
V6800-25319		Invensys	Pneumatic Valve	*VCP-41330240	
V6800-30307		Invensys	Pneumatic Valve	*VCP-41340242	
V6800-30308		Invensys	Pneumatic Valve	*VCP-41340241	
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V6800-35307		Invensys	Pneumatic Valve	*VCP-41350242	
V6800-35308		Invensys	Pneumatic Valve	*VCP-41350241	
V6800-35319		Invensys	Pneumatic Valve	*VCP-41350240	
V6800-40307		Invensys	Pneumatic Valve	*VCP-41360242	
V6800-40308		Invensys	Pneumatic Valve	*VCP-41360241	
V6800-40319		Invensys	Pneumatic Valve	*VCP-41360240	
V-7216-4503		Johnson	Pneumatic Valve	*VCP-41310251	
V-7216-4505		Johnson	Pneumatic Valve	*VCP-41310251	
V-7216-4507		Johnson	Pneumatic Valve	*VCP-41320251	
V-7216-4571		Johnson	Pneumatic Valve	*VCP-41340260	
VCV-2100		Staefa/UPC	VAV Controller	CSC-3011-10	
VCV-2200		Staefa/UPC	VAV Controller	CSC-3011-10	
VCV-2500		Staefa/UPC	VAV Controller	CSC-3011-10	
VK4-8392-304-4-3		Invensys	Pneumatic Valve	*VCP-42310260	
VK4-9213-301-4-6		Invensys	Pneumatic Valve	*VCP-41320260	
VK4-9213-301-4-8		Invensys	Pneumatic Valve	*VCP-41330260	
VK4-9213-301-4-9		Invensys	Pneumatic Valve	*VCP-41340260	
VK4-9213-371-4-10		Invensys	Pneumatic Valve	*VCP-42350260	
VK4-9213-371-4-11		Invensys	Pneumatic Valve	*VCP-41360260	
VK4-9213-372-4-10		Invensys	Pneumatic Valve	*VCP-43350260	
VK4-9213-372-4-11		Invensys	Pneumatic Valve	*VCP-43360260	
VK4-9213-373-4-10		Invensys	Pneumatic Valve	*VCP-41350260	
VK4-9213-373-4-11		Invensys	Pneumatic Valve	*VCP-43360260	
VK4-9213-601-4-10		Invensys	Pneumatic Valve	*VCP-41350260	
VK4-9213-601-4-11		Invensys	Pneumatic Valve	*VCP-41360260	
VK4-9213-601-5-12		Invensys	Pneumatic Valve	*VCP-51701270	
VK4-9213-601-5-13		Invensys	Pneumatic Valve	*VCP-51711270	
VK4-9213-801-5-12		Invensys	Pneumatic Valve	*VCP-51701710	
VK4-9213-801-5-13		Invensys	Pneumatic Valve	*VCP-51711710	
VK4-9213-811-5-16		Invensys	Pneumatic Valve	*VCP-51741710	
VK4-9223-301-4-6		Invensys	Pneumatic Valve	*VCP-41320260	



Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
VK4-9223-301-4-8		Invensys	Pneumatic Valve	*VCP-41330260	
VK4-9223-301-4-9		Invensys	Pneumatic Valve	*VCP-41340260	
VK4-9223-373-4-10		Invensys	Pneumatic Valve	*VCP-42350260	
VK4-9223-373-4-11		Invensys	Pneumatic Valve	*VCP-41360260	
VK4-9223-603-4-10		Invensys	Pneumatic Valve	*VCP-42350260	
VK4-9223-603-5-12		Invensys	Pneumatic Valve	*VCP-52701710	
VK4-9223-603-5-13		Invensys	Pneumatic Valve	*VCP-51711270	
VK4-9223-803-5-12		Invensys	Pneumatic Valve	*VCP-52701710	
VK4-9223-813-5-15		Invensys	Pneumatic Valve	*VCP-52731710	
VK4-9223-913-5-16		Invensys	Pneumatic Valve	*VCP-52741710	
VK4-9273-301-4-3		Invensys	Pneumatic Valve	*VCP-41310260	
VK4-9273-301-4-8		Invensys	Pneumatic Valve	*VCP-41330260	
VK4-9273-301-4-9		Invensys	Pneumatic Valve	*VCP-41340260	
VK4-9273-371-4-10		Invensys	Pneumatic Valve	*VCP-41350260	
VK4-9273-371-4-11		Invensys	Pneumatic Valve	*VCP-41360260	
VK4-9273-601-4-10		Invensys	Pneumatic Valve	*VCP-41350260	
VK4-9273-601-4-11		Invensys	Pneumatic Valve	*VCP-41360260	
VK4-9283-303-4-3		Invensys	Pneumatic Valve	*VCP-42310260	
VK4-9283-303-4-6		Invensys	Pneumatic Valve	*VCP-42320260	
VK4-9283-303-4-8		Invensys	Pneumatic Valve	*VCP-42330260	
VK4-9283-303-4-9		Invensys	Pneumatic Valve	*VCP-42340260	
VK4-9283-371-4-10		Invensys	Pneumatic Valve	*VCP-41350260	
VK4-9283-373-4-11		Invensys	Pneumatic Valve	*VCP-42360260	
VK4-9283-603-4-10		Invensys	Pneumatic Valve	*VCP-41350260	
VK4-9283-603-4-11		Invensys	Pneumatic Valve	*VCP-42360260	
VK4-9313-302-4-2		Invensys	Pneumatic Valve	*VCP-43310260	
VK4-9313-302-4-6		Invensys	Pneumatic Valve	*VCP-43320260	
VK4-9313-302-4-8		Invensys	Pneumatic Valve	*VCP-43330260	
VK4-9313-302-4-9		Invensys	Pneumatic Valve	*VCP-43340260	
VK4-9313-303-4-2		Invensys	Pneumatic Valve	*VCP-43310260	
VK4-9313-303-4-6		Invensys	Pneumatic Valve	*VCP-43320260	
VK4-9313-303-4-8		Invensys	Pneumatic Valve	*VCP-43330260	
VK4-9313-303-4-9		Invensys	Pneumatic Valve	*VCP-43340260	
VK4-9313-601-5-14		Invensys	Pneumatic Valve	*VCP-51721710	
VK4-9313-602-4-10		Invensys	Pneumatic Valve	*VCP-43350260	
VK4-9313-602-4-11		Invensys	Pneumatic Valve	*VCP-43360260	
VK4-9313-602-5-12		Invensys	Pneumatic Valve	*VCP-53621270	
VK4-9313-602-5-13		Invensys	Pneumatic Valve	*VCP-53631270	
VK4-9313-603-4-11		Invensys	Pneumatic Valve	*VCP-43360260	
VK4-9313-603-4-11		Invensys	Pneumatic Valve	*VCP-43360260	
VK4-9313-603-5-12		Invensys	Pneumatic Valve	*VCP-53621270	
VK4-9313-603-5-13		Invensys	Pneumatic Valve	*VCP-53631270	
VK4-9313-801-5-14		Invensys	Pneumatic Valve	*VCP-51721710	
VK4-9313-802-5-12		Invensys	Pneumatic Valve	*VCP-53621270	
VK4-9313-802-5-13		Invensys	Pneumatic Valve	*VCP-53631270	
VK4-9313-812-5-15		Invensys	Pneumatic Valve	*VCP-53651710	
VK4-9313-812-5-16		Invensys	Pneumatic Valve	*VCP-53661710	
VK4-9323-601-5-14		Invensys	Pneumatic Valve	*VCP-51721710	
VK4-9323-603-5-14		Invensys	Pneumatic Valve	*VCP-51721710	
VK4-9323-801-5-14		Invensys	Pneumatic Valve	*VCP-51721710	
VK-9212-201-4-2		Invensys	Pneumatic Valve	*VCP-61270231	
VK-9212-201-4-3		Invensys	Pneumatic Valve	*VCP-61290231	
VK-9213-301-4-2		Invensys	Pneumatic Valve	*VCP-41310251	
VK-9213-301-4-3		Invensys	Pneumatic Valve	*VCP-41310251	
VK-9213-301-4-6		Invensys	Pneumatic Valve	*VCP-41320251	
VK-9213-301-4-8		Invensys	Pneumatic Valve	*VCP-41330251	
VK-9213-301-4-9		Invensys	Pneumatic Valve	*VCP-41340251	
VK-9213-371-4-11		Invensys	Pneumatic Valve	*VCP-41360251	
VK-9213-601-4-10		Invensys	Pneumatic Valve	*VCP-41350260	
VK-9213-601-4-11		Invensys	Pneumatic Valve	*VCP-41360260	
VK-9213-601-5-12		Invensys	Pneumatic Valve	*VCP-51701270	
VK-9213-601-5-13		Invensys	Pneumatic Valve	*VCP-51711270	
VK-9213-602-4-10		Invensys	Pneumatic Valve	*VCP-41350260	
VK-9213-602-4-11		Invensys	Pneumatic Valve	*VCP-41360260	
VK-9213-602-5-12		Invensys	Pneumatic Valve	*VCP-51701270	



Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
VK-9213-602-5-13		Invensys	Pneumatic Valve	*VCP-51711270	
VK-9213-603-5-12		Invensys	Pneumatic Valve	*VCP-51701270	
VK-9213-801-5-12		Invensys	Pneumatic Valve	*VCP-51701710	
VK-9213-801-5-13		Invensys	Pneumatic Valve	*VCP-51711270	
VK-9213-801-5-13		Invensys	Pneumatic Valve	*VCP-51711710	
VK-9213-801-5-13		Invensys	Pneumatic Valve	*VCP-53631270	
VK-9213-801-5-13		Invensys	Pneumatic Valve	*VCP-53631710	
VK-9213-811-5-15		Invensys	Pneumatic Valve	*VCP-51731710	
VK-9213-811-5-16		Invensys	Pneumatic Valve	*VCP-51741710	
VK-9222-203-4-3		Invensys	Pneumatic Valve	*VCP-62290231	
VK-9223-301-4-6		Invensys	Pneumatic Valve	*VCP-41320251	
VK-9223-301-4-8		Invensys	Pneumatic Valve	*VCP-41330251	
VK-9223-301-4-9		Invensys	Pneumatic Valve	*VCP-41340251	
VK-9223-371-4-11		Invensys	Pneumatic Valve	*VCP-42360251	
VK-9223-601-4-10		Invensys	Pneumatic Valve	*VCP-42350260	
VK-9223-601-5-12		Invensys	Pneumatic Valve	*VCP-52701710	
VK-9223-601-5-13		Invensys	Pneumatic Valve	*VCP-51711270	
VK-9223-602-4-10		Invensys	Pneumatic Valve	*VCP-42350260	
VK-9223-602-5-12		Invensys	Pneumatic Valve	*VCP-52701710	
VK-9223-602-5-13		Invensys	Pneumatic Valve	*VCP-51711270	
VK-9223-603-4-10		Invensys	Pneumatic Valve	*VCP-42350260	
VK-9223-603-5-12		Invensys	Pneumatic Valve	*VCP-52701710	
VK-9223-603-5-13		Invensys	Pneumatic Valve	*VCP-51711270	
VK-9223-801-5-13		Invensys	Pneumatic Valve	*VCP-52721710	
VK-9223-803-5-12		Invensys	Pneumatic Valve	*VCP-52701710	
VK-9223-813-5-15		Invensys	Pneumatic Valve	*VCP-52731710	
VK-9223-813-5-16		Invensys	Pneumatic Valve	*VCP-52741710	
VK-9253-301-4-3		Invensys	Pneumatic Valve	*VCP-41310251	
VK-9273-301-4-3		Invensys	Pneumatic Valve	*VCP-41310251	
VK-9273-301-4-6		Invensys	Pneumatic Valve	*VCP-41320251	
VK-9273-301-4-8		Invensys	Pneumatic Valve	*VCP-41330251	
VK-9273-301-4-9		Invensys	Pneumatic Valve	*VCP-41340251	
VK-9273-371-4-10		Invensys	Pneumatic Valve	*VCP-41350251	
VK-9273-371-4-11		Invensys	Pneumatic Valve	*VCP-41360251	
VK-9273-601-4-10		Invensys	Pneumatic Valve	*VCP-41350277	
VK-9273-601-4-11		Invensys	Pneumatic Valve	*VCP-41360260	
VK-9273-602-4-10		Invensys	Pneumatic Valve	*VCP-41350278	
VK-9273-602-4-11		Invensys	Pneumatic Valve	*VCP-41360260	
VK-9273-603-4-10		Invensys	Pneumatic Valve	*VCP-41350279	
VK-9273-603-4-11		Invensys	Pneumatic Valve	*VCP-41360260	
VK-9283-301-4-3		Invensys	Pneumatic Valve	*VCP-42310251	
VK-9283-371-4-10		Invensys	Pneumatic Valve	*VCP-41350251	
VK-9283-601-4-10		Invensys	Pneumatic Valve	*VCP-41350280	
VK-9283-601-4-11		Invensys	Pneumatic Valve	*VCP-42360260	
VK-9283-602-4-10		Invensys	Pneumatic Valve	*VCP-41350281	
VK-9283-602-4-11		Invensys	Pneumatic Valve	*VCP-42360260	
VK-9283-603-4-10		Invensys	Pneumatic Valve	*VCP-41350282	
VK-9283-603-4-11		Invensys	Pneumatic Valve	*VCP-42360260	
VK-9312-201-4-2		Invensys	Pneumatic Valve	*VCP-63280231	
VK-9312-201-4-2		Invensys	Pneumatic Valve	*VCP-63300231	
VK-9312-203-4-2		Invensys	Pneumatic Valve	*VCP-63300234	
VK-9313-301-4-2		Invensys	Pneumatic Valve	*VCP-43310251	
VK-9313-301-4-6		Invensys	Pneumatic Valve	*VCP-43320251	
VK-9313-301-4-8		Invensys	Pneumatic Valve	*VCP-43330251	
VK-9313-301-4-9		Invensys	Pneumatic Valve	*VCP-43340251	
VK-9313-601-4-10		Invensys	Pneumatic Valve	*VCP-43350251	
VK-9313-601-4-11		Invensys	Pneumatic Valve	*VCP-43360251	
VK-9313-601-5-14		Invensys	Pneumatic Valve	*VCP-51721710	
VK-9313-602-4-10		Invensys	Pneumatic Valve	*VCP-43350260	
VK-9313-602-4-11		Invensys	Pneumatic Valve	*VCP-43360260	
VK-9313-602-5-14		Invensys	Pneumatic Valve	*VCP-51721710	
VK-9313-603-4-10		Invensys	Pneumatic Valve	*VCP-43350260	
VK-9313-603-4-11		Invensys	Pneumatic Valve	*VCP-43360260	
VK-9313-603-5-14		Invensys	Pneumatic Valve	*VCP-51721710	
VK-9313-801-5-14		Invensys	Pneumatic Valve	*VCP-51721710	



Reference

Original Part No.	Actuator Accessory	MFG	Description	KMC Part No.	Accessory
VK-9313-812-5-16		Invensys	Pneumatic Valve	*VCP-53661710	
VK-9323-601-5-14		Invensys	Pneumatic Valve	*VCP-51721710	
VK-9323-602-5-14		Invensys	Pneumatic Valve	*VCP-51721710	
VK-9323-603-5-14		Invensys	Pneumatic Valve	*VCP-51721710	
VK-9323-801-5-14		Invensys	Pneumatic Valve	*VCP-51721710	
VP526A1068		Honeywell	Pneumatic Valve	*VCP-61270231	
VP526A1076		Honeywell	Pneumatic Valve	*VCP-63280231	
VP526A1084		Honeywell	Pneumatic Valve	*VCP-61270231	
VTM-TM019-313		Honeywell	Pneumatic Valve	*VCP-43310251	
VTM-TM019-323		Honeywell	Pneumatic Valve	*VCP-43310251	
VTM-TN007-312		Johnson	Pneumatic Valve	*VCP-41310251	
VTM-TN007-322		Johnson	Pneumatic Valve	*VCP-41310251	
VTM-TN019-312		Johnson	Pneumatic Valve	*VCP-41310251	
VTM-TN019-322		Johnson	Pneumatic Valve	*VCP-41310251	

***NOTE:** This cross-reference lists valve numbers (VEP/VCP series) undergoing transitions. For current equivalent valve type, part number, and information, see the appropriate Electronic or Pneumatic Valve section in this catalog, consult other KMC cross-reference resources, and/or contact Customer Service for assistance.





Price List





List Prices Effective 5/15/09 (Subject to Change Without Notice)

Part Number	Description	List Price (Each)
0-7		
024-305-05	WINDOW COVER (Green)	3.52
026-102-02	SCREW;4-24x1-3/8PHILLIPS PAN	1.68
026-305-04	COVER-MEP-5000(KMC LOGO; Green)	3.52
026-323-02	THUMB BUTTON (Green)	3.52
062-001-03	STEM ASSEMBLY (1",N.C.)	148.97
062-001-06	STEM ASSEMBLY (2",N.C.)	148.97
062-001-27	STEM ASSEMBLY (1",NO)	148.97
062-001-34	STEM ASSEMBLY (1 1/4",3-WAY)	148.97
062-500-01	BUSHING	10.64
732-310-02	3"2WDBL;100Cv;125#;3/4"STRK;NO	2365.06
B		
BAC-10063C	FlexStat; 6R; 3UO	876.53
BAC-10063CW	FlexStat;6R;3UO White Cover	876.53
BAC-10163C	FlexStat;HUM;6R;3UO	1113.43
BAC-10163CW	FlexStat; HUM;6R;3UO, White Cover	1113.43
BAC-11063C	FlexStat;OS;6R;3UO	1066.05
BAC-11063CW	FlexStat;OS;6R;3UO white	1066.05
BAC-11163C	FlexStat;OS;HUM;6R;3UO	1302.95
BAC-11163CW	FlexStat;OS;HUM;6R;3UO White	1302.95
C		
C20PA100000	ACTUATOR KIT (PA10)	255.37
CAE-1003	SMOKE DETECTOR 110 VAC ION.	507.93
CAE-1103	SMOKE DETECTOR 110 VAC PHOTO.	562.11
CCC-1001	2 INPUT RECEIVER CONTROL;1PIPE	319.21
CCC-1002	2 INPUT RECEIVER CONTROL;2PIPE	361.78
CCE-1001	PE SWITCH SPDT W/COVER	74.48
CCE-1002	PE SWITCH DPDT W/COVER	119.17
CCE-3001	PRESSURE ELECTRIC SWITCH	51.07
CCE-3002	2-STAGE P.E. SWITCH	85.12
CCE-3003	3-STAGE P.E. SWITCH	102.15
CEE-1101-10	CONTROLLER;SINGLE DA;FAN BOX	112.79
CEE-1103-10	CONTROLLER DA/CLG;RA/HTG;FAN	148.97
CEE-1105-10	DUAL;DA/NIGHT;DA/DAY	148.97
CEE-2004	FCU CONTROL;TIME PROP;4 PIPE	146.84
CEE-2006	FCU ;TIME PROP;2 PIPE & REHEAT	165.99
CEE-2007	FCU CONTROL;TIME PROP;4 PIPE	146.84
CEE-2104	FCU CONTROL;TIME PROP;4 PIPE	146.84
CEE-2106	FCU ;TIME PROP;2 PIPE & REHEAT	165.99
CEE-2204	FCU CONTROL;TIME PROP;4 PIPE	146.84
CEE-2206	FCU ;TIME PROP;2 PIPE & REHEAT	165.99
CEE-3006	FCU ;4-PIPE VALVE ACTUATOR	140.45
CEE-3007	FCU ;4-PIPE VALVE ACT. SLAVE	140.45
CEE-3009	FAN SPEED CONTROLLER 10 AMP	212.81
CEE-3010	FAN SPEED CONTROL 5 AMP(0-10V)	161.74
CEP-4001	ELEC.CONT.100 DEG.CCWwSSE-	483.63
CEP-4002	ELEC.CONT.100 DEG.CCWwSSE-1002	487.99
CEP-4003	ELEC.CONT.100 DEG.CCWwSSE-2001	533.54
CEP-4004	ELEC.CONT.100 DEG.CCWwSSE-2002	542.27
CEP-4005	ELEC.CONT.100 DEG.CCWw/oSENSOR	433.76
CEP-4011	ELEC.CONT.100 DEG.CWwSSE-1001	483.63
CEP-4011C	ELEC.CONT.100 DEG.CWwSSE-1011	492.26
CEP-4012	ELEC.CONT.100 DEG.CWwSSE-1002	487.99
CEP-4012C	ELEC.CONT.100 DEG.CWwSSE-1012	496.62
CEP-4013	ELEC.CONT.100 DEG.CWwSSE-2001	533.55
CEP-4013C	ELEC.CONT.100 DEG.CWwSSE-2011	550.74
CEP-4014	ELEC.CONT.100 DEG.CWwSSE-2002	542.29
CEP-4015	ELEC.CONT.100 DEG.CWw/oSENSOR	433.76
CEP-4201	ELEC.CONT.60 DEG.CCWwSSE-1001	483.63



Price List

Part Number	Description	List Price (Each)
CEP-4201C	ELEC.CONT.60 DEG.CCWwSSE-1011	492.26
CEP-4202	ELEC.CONT.60 DEG.CCWwSSE-1002	487.99
CEP-4202C	ELEC.CONT.60 DEG.CCWwSSE-1012	496.62
CEP-4203	ELEC.CONT.60 DEG.CCWwSSE-2001	533.54
CEP-4203C	ELEC.CONT.60 DEG.CCWwSSE-2011	550.74
CEP-4204	ELEC.CONT.60 DEG.CCWwSSE-2002	542.27
CEP-4204C	ELEC.CONT.60 DEG.CCWwSSE-2012	559.48
CEP-4205	ELEC.CONT.60 DEG.CCWw/oSENSOR	433.76
CEP-4211	ELEC.CONT.60 DEG.CWwSSE-1001	483.63
CEP-4212	ELEC.CONT.60 DEG.CWwSSE-1002	487.99
CEP-4213	ELEC.CONT.60 DEG.CWwSSE-2001	533.54
CEP-4214	ELEC.CONT.60 DEG.CWwSSE-2002	542.27
CEP-4214C	ELEC.CONT.60 DEG.CWwSSE-2012	559.48
CEP-4215	ELEC.CONT.60 DEG.CWw/oSENSOR	433.76
CEP-4401	ELEC.CONT.45 DEG.CCWwSSE-1001	483.63
CEP-4402	ELEC.CONT.45 DEG.CCWwSSE-1002	487.99
CEP-4405	ELEC.CONT.45 DEG.CCWw/oSENSOR	433.76
CEP-4411	ELEC.CONT.45 DEG.CWwSSE-1001	483.63
CEP-4412	ELEC.CONT.45 DEG.CWwSSE-1002	487.99
CEP-4413	ELEC.CONT.45 DEG.CWwSSE-2001	533.54
CEP-4414	ELEC.CONT.45 DEG.CWwSSE-2002	542.27
CEP-4415	ELEC.CONT.45 DEG.CWw/oSENSOR	433.76
CEP-4461	ELEC.CONT.45 DEG.CWwSSE-1001	483.63
CEP-4462	ELEC.CONT.45 DEG.CWwSSE-1002	487.99
CEP-4463	ELEC.CONT.45 DEG.CWwSSE-2001	533.54
CEP-4464	ELEC.CONT.45 DEG.CWwSSE-2002	542.27
CEP-4465	ELEC.CONT.45 DEG.CWw/oSENSOR	433.76
CEP-4601	ELEC.CONT.360 DEG.CCWwSSE-1001	483.63
CEP-4602	ELEC.CONT.360 DEG.CCWwSSE-1002	487.99
CEP-4611	ELEC.CONT.360 DEG.CWwSSE-1001	483.63
CEP-4612	ELEC.CONT.360 DEG.CWwSSE-1002	487.99
CEP-4613	ELEC.CONT.360 DEG.CWwSSE-2001	533.54
CEP-4614	ELEC.CONT.360 DEG.CWwSSE-2002	542.27
CEP-4615	ELEC.CONT.360 DEG.CWw/oSENSOR	433.76
CEP-4995	UNIVERSAL CEP-4000 CONTROLLER	433.76
CMC-1001	POSITIVE POSITIONER, PLASTIC	170.25
CMC-1002	POSITIVE POSITIONER, METAL	234.09
CME-1001	SINGLE END SWITCH 60DEG.ACCESS	41.99
CME-1002	SINGLE END SWITCH 100DEG.ACCE	41.99
CME-1003	DUAL END SWITCH;60 DEG.ACCESS	55.71
CME-1004	DUAL END SWITCH;100 DEG.ACCESS	63.84
CME-2001	FEEDBACK POT FOR MEP/CEP	148.97
CME-2002	FEEDBACK POT FOR MEP/CEP	148.97
CME-2003	ROTARY FEEDBACK POT(MEP-5000)	31.92
CME-7001	SINGLE AUX. SWCH ASSY 0-90 deg	93.64
CME-7002	DUAL AUX. SWCH ASSY 0-90 deg	117.05
CSC-1001	CV CONTROL; RA/NO	216.30
CSC-2001	VAV CONTROL;DA/NO	203.11
CSC-2002	VAV CONTROL;RA/NC	203.11
CSC-2003	VAV CONTROL;DA/NO	169.25
CSC-2004	VAV CONTROL;RA/NC	169.25
CSC-2007	VAV CONTROL;DA/NO;LOW CONSUMP.	169.25
CSC-2008	VAV CONTROL;RA/NC;LOW CONSUMP.	169.25
CSC-2009	VAV CONTROL;DA/NO;2"RANGE	169.25
CSC-2010	VAV CONTROL;RA/NC;2"RANGE	169.25
CSC-2017	VAV CONTROL;DA/NO;2"RANGE	169.25
CSC-2018	VAV CONTROL;RA/NC;2"RANGE	169.25
CSC-3011-10	RESET VEL.CONTROL	225.65
CSC-3014-10	RESET CONTROL;REMOTE LIMITS	248.23
CSC-3016-10	RESET VEL.CONTROL (2")	225.65
CSC-3017-16	RESET VEL.CONTROL W/O BRACKET	225.65
CSC-3021-10	RESET VEL.CONTROL;3-8 PSI	225.65
CSC-3023-10	RESET VEL.CONTROL;10-15 PSI	225.65
CSC-3025-10	RESET VEL.CONTROL LT. ALM.	225.65



Part Number	Description	List Price (Each)
CSC-3026-10	CSC-3016 W/3-8 PSI RESET	225.65
CSC-3501-10	LINEAR FLOW CONTROLLER; 1"	338.51
CSC-3505-10	LINEAR FLOW CONTROLLER; 2"	338.51
CSC-3525-10	LINEAR FLOW CONTROL	338.51
CSE-1102	DP SW; .05 TO 12.0" AIR	105.34
CSE-1103	DP SW; .05" TO 12.0" AIR, COMP	117.05
CSE-4846	MICROBRIDGE VELOCITY CONTROL	472.11
CSE-4847	MICROBRIDGE VELOCITY CONTROL	472.11
CSE-4848	MICROBRIDGE VELOCITY CONTROL	472.11
CSP-4006	MICROBRIDGE CONT.100 DEG.CCW	617.15
CSP-4008	MICROBRIDGE CONT.100 DEG;1"W C	617.15
CSP-4016	MICROBRIDGE CONT.100 DEG.CW	617.15
CSP-4018	MICROBRIDGE CONT.100 DEG;1"W C	617.15
CSP-4206	MICROBRIDGE CONT.60 DEG.CCW	617.15
CSP-4208	MICROBRIDGE CONT.60 DEG;1"W C	617.15
CSP-4216	MICROBRIDGE CONT.60 DEG.CW	617.15
CSP-4218	MICROBRIDGE CONT.60 DEG;1"W C	617.15
CSP-4418	MICROBRIDGE CONT.45 DEG;1"W C	617.15
CSP-4606	MICROBRIDGE CONT.360 DEG.CCW	617.15
CSP-4616	MICROBRIDGE CONT.360 DEG.CW	617.15
CSP-5001	VAV FLOW CONTROL/ACTUATOR CCW	411.53
CSP-5002	VAV FLOW CONTROL/ACTUATOR CW	411.53
CSS-1003	SYS. PWRD. CONTROLLER	125.01
CTC-1001-10	T'STAT; SINGLE DA	88.24
CTC-1001-11	T'STAT; SINGLE DA	88.24
CTC-1002-10	T'STAT; SINGLE RA	88.24
CTC-1002-11	T'STAT; SINGLE RA	88.24
CTC-1003-10	T'STAT; DUAL DA CLG/RA HTG	134.24
CTC-1004-10	T'STAT; DUAL DA CLG/DA HTG	134.24
CTC-1005-10	T'STAT; DUAL RA CLG/RA HTG	134.24
CTC-1006-10	T'STAT; DUAL RA CLG/DA HTG	134.24
CTC-1009-10	T'STAT; DUAL; DA/DAY DA/NITE	134.24
CTC-1010-10	T'STAT; DUAL; RA/DAY RA/NITE	134.24
CTC-1011-10	T'STAT; DUAL; DA/NITE DA/DAY	134.24
CTC-1012-10	T'STAT; DUAL; RA/NITE RA/DAY	134.24
CTC-1501-10	T'STAT; 2 PIPE; DA T1	176.48
CTC-1501-103	T'STAT; 2 PIPE; DA T1	176.48
CTC-1501-11	T'STAT; 2 PIPE; DA T1	176.48
CTC-1502-10	T'STAT; 2 PIPE; RA T1	176.48
CTC-1502-103	T'STAT; 2 PIPE; RA T1	176.48
CTC-1502-11	T'STAT; 2 PIPE; RA T1	176.48
CTC-1503-10	T, STAT; 2 PIPE, DA CLG, RA HTG	268.47
CTC-1503-103	T, STAT; 2 PIPE, DA CLG, RA HTG	268.47
CTC-1504-10	T'STAT; 2 PIPE, DA, CLG, DA HTG	268.47
CTC-1504-103	T'STAT; 2 PIPE, DA, CLG, DA HTG	268.47
CTC-1505-10	T'STAT; 2 PIPE; RA CLG/RA HTG	268.47
CTC-1506-10	T'STAT; 2 PIPE; RA CLG/DA HTG	268.47
CTC-1509-10	T'STAT; 2 PIPE; DA/DAY DA/NITE	268.47
CTC-1510-10	T'STA; 2 PIPE; RA/DAY RA/NITE	268.47
CTC-1511-10	T'STA; 2 PIPE; DA/NITE DA/DAY	268.47
CTC-1512-10	T'STA; 2 PIPE; RA/NITE RA/DAY	268.47
CTC-1611	T'STAT; 1-PIPE D.A.	63.84
CTC-1612	T'STAT; 1-PIPE R.A.	63.84
CTC-1621	T'STAT; 2-PIPE D.A.	117.05
CTC-1621-103	T'STAT; 2-PIPE D.A.; VALUE PKG	140.45
CTC-1621-113	2-PIPE DA; VERT.C; VALUE PKG	140.45
CTC-1622	T'STAT; 2-PIPE R.A.	117.05
CTC-1622-103	T'STAT; 2-PIPE R.A.; VALUE PKG	140.45
CTC-1622-113	2-PIPE RA; VERT.C; VALUE PKG	140.45
CTC-1631	T'STAT; DEAD-BAND DA	178.76
CTC-1632	T'STAT; DEAD-BAND RA	178.76
CTC-1643	T'STAT; DUAL PRESS.DA/DA(17-23)	191.53
CTC-1643-23	T'STAT; DUAL PRESS.DA/DA(13-18)	191.53
CTC-1643-25	T'STAT; DUAL PRESS.DA/DA(16-21)	191.53



Price List

Part Number	Description	List Price (Each)
CTC-1644	T'STAT;DUAL PRESS.RA/RA(17-23)	191.53
CTC-1644-23	T'STAT;DUAL PRESS.RA/RA(13-18)	191.53
CTC-1644-25	T'STAT;DUAL PRESS.RA/RA(16-21)	191.53
CTC-1645	T'STAT;DUAL PRESS.RA/DA(17-23)	191.53
CTC-1645-23	T'STAT;DUAL PRESS.RA/DA(13-18)	191.53
CTC-1645-25	T'STAT;DUAL PRESS.RA/DA(16-21)	191.53
CTC-1646	T'STAT;DUAL PRESS.DA/RA(17-23)	191.53
CTC-1646-23	T'STAT;DUAL PRESS.DA/RA(13-18)	191.53
CTC-1646-25	T'STAT;DUAL PRESS.DA/RA(16-21)	191.53
CTC-1653	T'STAT;LOCAL RESET DA/DA(16-25)	208.55
CTC-1653-23	T'STAT;LOCAL RESET DA/DA(13-18)	208.55
CTC-1653-25	T'STAT;LOCAL RESET DA/DA(16-21)	208.55
CTC-1654	T'STAT;LOCAL RESET RA/RA(17-23)	208.55
CTC-1654-23	T'STAT;LOCAL RESET RA/RA(13-18)	208.55
CTC-1654-25	T'STAT;LOCAL RESET RA/RA(16-21)	208.55
CTC-2001-10	T'STAT;SINGLE DA	157.48
CTC-2004-11	T'STAT;DUAL DA CLG/DA HTG	276.65
CTC-2009-10	T'STAT;DUAL DA CLG/RA HTG	276.65
CTC-2010-10	T'STAT;DUAL DA CLG/DA HTG	276.65
CTC-4001	DUCT STAT;3 WAY;PNU:70/75	157.48
CTC-4004	DUCT STAT;3 WAY;PNU:65/70	157.48
CTC-4101	PNEUMATIC REMOTE BULB T'STAT	246.86
CTC-5001-10	MINI T'STAT;DA;WHITE	72.04
CTC-5002-11	MINI T'STAT;RA;WHITE	72.04
CTC-5011-10	MINI T'STAT;DA;LT. ALMOND	72.04
CTC-5011-11	MINI T'STAT;DA;LT. ALMOND	72.04
CTC-5012-10	MINI T'STAT;RA;LT. ALMOND	72.04
CTC-5012-11	MINI T'STAT;RA;LT. ALMOND	72.04
CTC-5501-10	2-PIPE;MINI-STAT;DA,(F),WHITE	103.92
CTC-5501-11	2-PIPE;MINI-STAT;DA,(C),WHITE	103.92
CTC-5502-10	2-PIPE;MINI-STAT;RA,(F),WHITE	103.92
CTC-5502-11	2-PIPE;MINI-STAT;RA,(C),WHITE	103.92
CTC-5511-10	2-PIPE;MINI-STAT;DA,(F)ALMOND	103.92
CTC-5511-11	2-PIPE;MINI-STAT;DA,(C)TAN	103.92
CTC-5512-10	2-PIPE;MINI-STAT;RA,(F)TAN	103.92
CTC-5512-11	2-PIPE;MINI-STAT;RA,(C)TAN	103.92
CTE-1001-10	T'STAT;SINGLE DA	158.22
CTE-1001-103	T'STAT;SINGLE DA	158.22
CTE-1001-11	T'STAT;SINGLE DA	158.22
CTE-1002-10	T'STAT;SINGLE RA	158.22
CTE-1002-103	T'STAT;SINGLE RA;VERTICAL	158.22
CTE-1002-11	T'STAT;SINGLE RA	158.22
CTE-1003-10	T'STAT;DUAL;DA CLG/RA HTG	201.92
CTE-1003-103	T'STAT;DUAL;DA CLG/RA HTG	201.92
CTE-1003-11	T'STAT;DUAL;DA CLG/RA HTG	201.92
CTE-1003-113	T'STAT;DUAL;DA CLG/RA HTG	201.92
CTE-1004-10	T'STAT;SINGLE;DA CLG,W/REHEAT	153.96
CTE-1004-103	T'STAT;SINGLE;DA CLG,W/REHEAT	153.96
CTE-1004-11	T'STAT;SINGLE;DA CLG,W/REHEAT	153.96
CTE-1004-113	T'STAT;SINGLE;DA CLG,W/REHEAT	153.96
CTE-1005-10	T'STAT;DUAL;DA NIGHT/DA DAY	201.92
CTE-1005-11	T'STAT;DUAL;DA NIGHT/DA DAY	201.92
CTE-1008-10	T'STAT;DUAL;DA DAY/DA NIGHT	201.92
CTE-1008-11	T'STAT;DUAL;DA DAY/DA NIGHT	201.92
CTE-1009-10	T'STAT;DA/CLG;W/RESET;+REHEAT	201.92
CTE-1010-10	T'STAT;DA HTG;DA CLG.	201.92
CTE-1101-10	FAN BOX T'STAT;SINGLE DA	136.20
CTE-1101-103	ELECTRONIC; DA; VERTICAL	136.20
CTE-1101-11	FAN BOX T'STAT;SINGLE DA	136.20
CTE-1103-10	FAN BOX T'STAT;DA CLG/RA HTG	174.50
CTE-1103-103	FAN BOX T'STAT;DA CLG/RA HTG	174.50
CTE-1103-11	FAN BOX T'STAT;DA CLG/RA HTG	174.50
CTE-1105-10	FAN BOX T'STAT;DA NIGHT/DA DAY	174.50
CTE-1105-11	FAN BOX T'STAT;DA NIGHT/DA DAY	174.50



Price List

Part Number	Description	List Price (Each)
CTE-1108-10	FAN BOX T'STAT;DA DAY/DA NIGHT	174.50
CTE-1110-10	FAN BOX T'STAT;DA HEAT/DA COOL	174.50
CTE-3006	AUTO-RESET LOW-LIMIT CONTROL	255.37
CTE-3006-C	AUTO-RESET LOW-LIMIT CONTROL (CHINA)	255.37
CTE-3007	MANUAL-RESET LOW-LIMIT CONTROL	276.65
CTE-3017	DPDT LOW-LIMIT THERMOSTAT	361.78
CTE-5001-10	MINI T'STAT;WHITE	118.11
CTE-5001-11	MINI T'STAT;WHITE	118.11
CTE-5002-10	MINI T'STAT;WHITE;DUAL	118.11
CTE-5002-11	MINI T'STAT DUAL OUTPUT(WHITE)	118.11
CTE-5003-10	MINI T'STAT;WHITE;TRIPLE	118.11
CTE-5003-11	MINI T'STAT;WHITE;TRIPLE	118.11
CTE-5006-11	MINI T'STAT DUAL OUTPUT(WHITE)	118.11
CTE-5011-10	MINI T'STAT;TAN	118.11
CTE-5011-11	MINI T'STAT;TAN	118.11
CTE-5012-10	MINI T'STAT DA/RA DUAL BEIGE	118.11
CTE-5012-11	MINI T'STAT DA/RA DUAL BEIGE	118.11
CTE-5013-10	MINI T'STAT;BEIGE;TRIPLE	118.11
CTE-5013-11	MINI T'STAT;BEIGE;TRIPLE	118.11
CTE-5015W10	PI MINI STAT;F	118.11
CTE-5015W16	PI MINI STAT;F	118.11
CTE-5016-10	MINI STAT DUAL OUTPUT(LT.ALMD)	118.11
CTE-5101	2X3 T'STAT DA(T1)	117.05
CTE-5101-10	2X3 T'STAT DA(T1) VALUE PKG	144.71
CTE-5101-11	2X3 T'STAT DA(T1) VALUE PKG	144.71
CTE-5102	2X3 T'STAT RA(T2)	117.05
CTE-5102-10	2X3 T'STAT RA(T2) VALUE PKG	144.71
CTE-5102-11	2X3 T'STAT RA(T2) VALUE PKG	144.71
CTE-5103	2X3 T'STAT DUAL RA-T2 DA-T1	153.22
CTE-5103-10	2X3 T'STAT DUAL VALUE PKG	178.76
CTE-5103-11	2X3 T'STAT DUAL VALUE PKG	178.76
CTE-5104	2X3 T'STAT W/REHEAT RA-T2	153.22
CTE-5104-10	2X3 T'STAT W/REHEAT VALUE PKG	178.76
CTE-5104-11	2X3 T'STAT W/REHEAT VALUE PKG	178.76
CTE-5105	2X3 T'STAT DUAL DA-T2 DA-T1	153.22
CTE-5105-10	2X3 T'STAT DUAL (DA) VALUE PKG	178.76
CTE-5201-16	T'STAT DIGITAL DA W/LIMITS	250.00
CTE-6001	FS-200 MANUAL RESET HIGH LIMIT	159.61
CTE-6101-10	ROOM T'STAT;2PIPE;24V;F SCALE	95.76
CTE-6101-11	ROOM T'STAT;2PIPE;24V;C SCALE	95.76
CTE-6102-10	ROOM T'STAT;2PIPE;24V;F SCALE	95.76
CTE-6102-11	ROOM T'STAT;2PIPE;24V;C SCALE	95.76
CTE-6103-10	ROOM T'STAT;4PIPE;24V;F SCALE	95.76
CTE-6103-11	ROOM T'STAT;4PIPE;24V;C SCALE	95.76
CTE-6111-10	ROOM T'STAT;2PIPE;120V;F SCALE	95.76
CTE-6111-11	ROOM T'STAT;2PIPE;120V;C SCALE	95.76
CTE-6112-10	ROOM T'STAT;2PIPE;120V;F SCALE	95.76
CTE-6112-11	ROOM T'STAT;2PIPE;120V;C SCALE	95.76
CTE-6113-10	ROOM T'STAT;4PIPE;120V;F SCALE	95.76
CTE-6113-11	ROOM T'STAT;4PIPE;120V;C SCALE	95.76
CTE-6121-10	ROOM T'STAT;2PIPE;240V;F SCALE	95.76
CTE-6121-11	ROOM T'STAT;2PIPE;240V;C SCALE	95.76
CTE-6122-10	ROOM T'STAT;2PIPE;240V;F SCALE	95.76
CTE-6122-11	ROOM T'STAT;2PIPE;240V;C SCALE	95.76
CTE-6123-10	ROOM T'STAT;4PIPE;240V;F SCALE	95.76
CTE-6123-11	ROOM T'STAT;4PIPE;240V;C SCALE	95.76
CTE-6131-10	ROOM T'STAT;2PIPE;277V;F SCALE	95.76
CTE-6131-11	ROOM T'STAT;2PIPE;277V;C SCALE	95.76
CTE-6132-10	ROOM T'STAT;2PIPE;277V;F SCALE	95.76
CTE-6132-11	ROOM T'STAT;2PIPE;277V;C SCALE	95.76
CTE-6133-10	ROOM T'STAT;4PIPE;277V;F SCALE	95.76
CTE-6133-11	ROOM T'STAT;4PIPE;277V;C SCALE	95.76
CTS-1101-16	T'STAT;SINGLE;DA CLG	142.71
CTS-1101-17	T'STAT;SINGLE;DA CLG	142.71



Price List

Part Number	Description	List Price (Each)
CTS-1102-16	T' STAT; SINGLE; RA HTG	142.71
CTS-1102-17	T' STAT; SINGLE; RA HTG	142.71
CTS-1103-16	T' STAT; DUAL; DA CLG/RA HTG	191.53
CTS-3003	SLOT STAT; SINGLE; RA	59.59
CTS-4001	DUCT STAT; 3 WAY; SYSTEM POWERED	161.74
H		
H608	1.25-50A; N.O.	270.00
H708	1-135A; N.O.	238.04
H722	10-60A; 0-5VDC OUTPUT; SELF-POWER	223.06
H800	0.5-200 AMP ; N.O.	137.40
H900	1.5-200A; N.O.	182.02
H904	3.5-135A/5-34HZ; N.O.; VFD	328.18
H908	2.5-135A; N.O.	251.45
H922	0-30/0-60/0-120A; 0-5VDC	237.66
H938	2.5-135A; N.O.; COMMAND RELAY	322.50
H950	1.5-200A; N.O.; COMMAND RELAY	271.88
HAO-1001	PRV; 0-50 PSI; 16 CFM; 1/8" FPT	76.61
HAO-1002	PRV; 0-50 PSI; 20 CFM; 1/4" FPT	76.61
HAO-1003	PLASTIC PANEL MOUNTING NUT	8.30
HAO-1004	WALL BRACKET & MOUNTING NUT	27.67
HAO-1015	WALL MOUNTING BRACKET	29.79
HAO-1016	PLASTIC PANEL MTG NUT; NORGREN	8.51
HAO-1021	F/PRV; 0-100PSI; 11CFM; MD; 1/8FPT	165.99
HAO-1022	F/PRV; 0-100PSI; 16CFM; MD; 1/4FPT	165.99
HAO-1023	REPLACEMENT FILTER	21.28
HAO-1070	POP SAFETY VALVE	42.56
HAO-1207	QUICK CLAMP	27.67
HAO-1208	QUICK CLAMP W/BACKET	42.35
HAO-1211	PRV; 0-150PSI; 80CFM; 1/4FPT(NUT)	144.71
HAO-1212	PRV; 0-60PSI; 80CFM; 1/4FPT(NUT)	144.71
HAO-1213	PRV; 0-160PSI; 80CFM; 3/8FPT; NUT	144.71
HAO-1214	PRV; 0-60PSI; 80CFM; 3/8FPT; NUT	144.71
HAO-1231	F/PRV; 0-150PSI; 70CFM; MD; 1/4FPT	314.96
HAO-1232	F/PRV; 0-150PSI; 70CFM; AD; 1/4FPT	421.36
HAO-1233	F/PRV; 0-150PSI; 70CFM; MD; 3/8FPT	314.96
HAO-1234	F/PRV; 0-150PSI; 70CFM; AD; 3/8FPT	421.36
HAO-1236	REPLACEMENT FILTER	21.28
HAO-1241	FILTER; 50 CFM; MD; 1/4 FPT	187.27
HAO-1242	FILTER; 50 CFM; AD; 1/4 FPT	308.57
HAO-1243	FILTER; 50 CFM; MD; 3/8 FPT	187.27
HAO-1244	FILTER; 50 CFM; AD; 3/8 FPT	308.57
HAO-1245	WALL MOUNTING BRACKET	29.79
HAO-1251	OIL FILTER; 16CFM; MD; 1/4 FPT	327.73
HAO-1252	OIL FILTER; 16CFM; AD; 1/4 FPT	446.90
HAO-1253	OIL FILTER; 16CFM; MD; 3/8 FPT	327.73
HAO-1254	OIL FILTER; 16CFM; AD; 3/8 FPT	446.90
HAO-1259	REPLACEMENT FILTER	170.25
HCO-1008	ENCLOSURE 1OR2 REE-3100 RELAYS	31.69
HCO-1009	ENCLOSURE 8 REE-3100 RELAYS	93.64
HCO-1020A	LOCK & KEY FOR HCO-1000 (NEW)	53.20
HCO-1034	RING PANEL(16WX18HX6D)DK.BLUE	346.00
HCO-1035	RING PANEL(20WX24HX6D)DK.BLUE	381.74
HCO-1036	RING PANEL(24WX36HX6D)DK.BLUE	643.43
HCO-1101	MOLDED CONTROL ENCLOSURE; 5X10	51.07
HCO-1102	ENCLOSURE; METAL 2 PART 10x7x2 1/8	148.97
HCO-1120	BASE ONLY ; HCO-1101 ENCLOSURE	25.54
HCO-1121	COVER ONLY; HCO-1101 ENCLOSURE	25.54
HCO-1151	WEATHER ENCLOSURE; MEP-5000's	276.65
HCO-1152	WEATHER ENCLOSURE; MEP-7000's	276.65
HCO-2424-1	Base Panel	1106.61
HCO-2424-2	Base Panel+Transformer	1447.11
HCO-2424-3	Base Panel+PowerSupply	2021.69
HCO-2424-4	Base Panel+Trans.+PowerSupply	2383.47



Price List

Part Number	Description	List Price (Each)
HCO-2436-1	Base Panel	1553.51
HCO-2436-2	Base Panel+Transformer	1957.85
HCO-2436-3	Base Panel+PowerSupply	2596.28
HCO-2436-4	Base Panel+Trans.+PowerSupply	2958.06
HDO-1101	GRAD.SWITCH DIAL (BLANK)	6.38
HDO-1102	GRAD.SWITCH DIAL (0-100%)	6.38
HDO-1103	GRAD.SWITCH DIAL INC(CW ARROW)	6.38
HDO-1104	GRAD.SWITCH DIAL INC(CCW ARROW)	6.38
HDO-1201	SELECTOR DIAL (OCC-UNOCC)	6.38
HDO-1202	SELECTOR DIAL (SUMMER-WINTER)	6.38
HDO-1203	SELECTOR DIAL (ON-OFF)	6.38
HDO-1204	SELECTOR DIAL (ON-AUTO)	6.38
HDO-1205	SELECTOR DIAL (OPEN/CLOSE)	6.38
HDO-1206	SELECTOR DIAL (1-2)	6.38
HDO-1207	SELECTOR DIAL (DAY-NIGHT)	6.38
HDO-1208	SELECTOR DIAL (HEAT-COOL)	6.38
HDO-1209	SELECTOR DIAL (MANUAL-AUTO)	6.38
HDO-1210	SELECTOR DIAL (MIN-MAX)	6.38
HDO-1301	SELECTOR DIAL (1-2-3)	6.38
HDO-1302	SELECTOR DIAL (ON-AUTO-OFF)	6.38
HDO-1303	SELECTOR DIAL (DAY-AUTO-NIGHT)	6.38
HDO-1304	SELECTOR DIAL (OCC-AUTO-UNOCC)	6.38
HDO-1305	SELECTOR DIAL (HEAT-COOL)	6.38
HDO-1306	SELECTOR DIAL (SUM.-AUTO-WINT)	6.38
HDO-1307	SELECTOR DIAL(OPEN-AUTO-CLOSE)	6.38
HDO-1601	SELECTOR DIAL(1-2-3-4-5-6)	6.38
HDO-2333	RC DIAL; 0-100 F	8.51
HDO-2334	RC DIAL; 50-150 F	8.51
HDO-2335	RC DIAL; 50-100 F	8.51
HDO-2336	RC DIAL; 40-240 F	8.51
HDO-2337	RC DIAL; -40-160 F	8.51
HFO-0001	GAGE ELL #6 SCREW MOUNT	4.40
HFO-0002	TUBING HEADER	9.99
HFO-0003	TUBING TERMINAL STRIP	3.40
HFO-0006	FILTER CONTROL AIR	4.26
HFO-0008	GAGE ELL #10 SCREW MOUNT	6.42
HFO-0010	RESTRICTOR TEE;.5 SCFH +/-20%	6.38
HFO-0011	REDUCER BUSHING 1/2" TO 3/8"	1.14
HFO-0012	GAGE TEE;#10 SCREWS	5.42
HFO-0013	RUBBER CAP FOR 3/16" FITTING	0.36
HFO-0014	RUBBER CAP FOR 1/8" FITTING	0.24
HFO-0015	PITOT TUBE, 4"	10.64
HFO-0016	PITOT TUBE, 6"	11.70
HFO-0022	RESTRICTOR TEE;1 SCFH +/- 20%	9.08
HFO-0023	RESTRICTOR INSERT;1/4"COMP.FIT	24.47
HFO-0024	5/32 TUBE ASSEMBLY W/EYELETS	6.38
HFO-0025	IN-LINE RESTRICTOR;1.0 SCFH	5.79
HFO-0026	STAT WINDOW BLANK INSERT LT. A	0.62
HFO-0027	STAT SET POINT STOP STRIP	1.16
HFO-0028	8" TUBE W/SPRING	6.38
HFO-0029	IN-LINE RESTRICTOR;.5 SCFH	6.61
HFO-0034	IN LINE FILTER FOR CSP	7.66
HFO-0038	RESTRICTOR TEE;2 SCFH +/- 10%	10.41
HFO-0040	IN-LINE RESTRICTOR 0.046" DIA.	5.66
HFO-0101	BARB FTG;1/4X1/4 COMP	3.40
HFO-0102	BARB FTG;1/4X1/4 COMP BULKHEAD	8.51
HFO-0103	BARB FTG;3/8X3/8 COMP BULKHEAD	15.96
HFO-0104	BARB FTG;1/4X1/4 BULKHEAD	5.11
HFO-0105	BARB FTG;1/4X1/4 UNION	1.70
HFO-0106	BARB FTG;1/4X5/32 UNION	2.13
HFO-0107	BARB FTG;5/32X5/32 UNION	2.13
HFO-0108	BARB FTG;3/8X1/4 UNION	2.13
HFO-0109	BARB FTG;3/8X3/8 UNION	2.13
HFO-0110	BARB FTG;1/2X3/8 UNION	3.19



Price List

Part Number	Description	List Price (Each)
HFO-0111	BARB FTG;1/2X1/2 UNION	2.98
HFO-0112	BARB FTG;1/4X1/8 FPT CONNECT	3.19
HFO-0113	BARB FTG;3/8X1/8 FPT CONNECT	3.40
HFO-0114	BARB FTG;3/8X1/4 FPT CONNECT	8.30
HFO-0115	BARB FTG;1/4X1/8 FPT ELBOW	4.04
HFO-0116	BARB FTG;3/8X1/4 FPT ELBOW	17.02
HFO-0117	BARB FTG;1/4X1/4X1/8 FPT TEE	4.04
HFO-0118	BARB FTG;1/4X1/4X1/8 FPT TEE	21.28
HFO-0119	BARB FTG;1/4X1/8 MPT X 1/8 FPT	10.64
HFO-0120	BARB FTG;1/4X1/4 ELBOW	2.77
HFO-0121	BARB FTG;3/8X3/8 ELBOW	3.62
HFO-0122	BARB FTG;1/2X1/2 ELBOW	4.04
HFO-0123	BARB FTG;1/4X1/8 MPT CONNECTOR	1.70
HFO-0124	BMC-44 BARB CONN	2.34
HFO-0125	BMC-52 BARB CONN	4.04
HFO-0126	BMC-62 BARB CONN	2.13
HFO-0127	BMC-64 BARB CONN	2.55
HFO-0128	BML-42 BARB ELBOW	2.55
HFO-0129	BML-44 BARB ELBOW	3.62
HFO-0130	BML-62 BARB ELBOW	12.77
HFO-0131	BML-64 BARB ELBOW	4.04
HFO-0132	BMR-424 BARB TEE	14.90
HFO-0133	BMR-626	21.28
HFO-0134	BMR-0134	24.47
HFO-0135	BMT-422 BARB TEE	5.32
HFO-0136	BMT-662 BARB TEE	13.83
HFO-0137	BMT-664 BARB TEE	15.96
HFO-0138	BS-44 BARB/SOLDER	2.77
HFO-0139	BT-444 BARB TEE	2.77
HFO-0140	BT-445 BARB TEE	5.32
HFO-0141	BT-555 BARB TEE	5.32
HFO-0142	BT-664 BARB TEE	2.55
HFO-0143	BT-665 BARB TEE	7.45
HFO-0144	BT-666 BARB TEE	4.04
HFO-0145	BT-884 BARB TEE	5.32
HFO-0146	BT-886 BARB TEE	5.32
HFO-0147	BT-888 BARB TEE	5.53
HFO-0148	BX-4 BARB PLUG	1.28
HFO-0149	BX-6 BARB PLUG	2.98
HFO-0150	BMC-452 BARB CONNECTOR	3.19
HFO-0301	CBC-44 COMP UNION	12.77
HFO-0302	CBC-66 COMP UNION	16.81
HFO-0303	CC-33 COMP UNION	8.30
HFO-0304	CC-44 COMP UNION	5.11
HFO-0305	CC-64 COMP UNION	11.70
HFO-0306	CC-66 COMP UNION	2.98
HFO-0307	CCL-44 COMP ELBOW	2.98
HFO-0308	CD-4 DELRIN SLEEVE	0.85
HFO-0309	CD-6 DELRIN SLEEVE	1.06
HFO-0310	CD-8 DELRIN SLEEVE	1.28
HFO-0311	CF-4 COMP SLEEVE	1.06
HFO-0312	CF-6 COMP SLEEVE	1.06
HFO-0313	CFB-442 COMP TEE	15.96
HFO-0314	COMP.FTG;3/16X1/8FPT CONNECTOR	5.32
HFO-0315	COMP.FTG;1/4X1/8FPT CONNECTOR	3.83
HFO-0316	COMP.FTG;1/4X1/4FPT CONNECTOR	6.38
HFO-0317	COMP.FTG;3/8X1/8FPT CONNECTOR	5.32
HFO-0318	COMP.FTG;3/8X1/8FPT CONNECTOR	8.30
HFO-0319	COMP.FTG;1/4X1/8FPT ELBOW	12.77
HFO-0320	COMP.FTG;1/4X1/4FPT ELBOW	19.15
HFO-0321	COMP.FTG;1/4X1/8MPTX1/8FPT TEE	40.43
HFO-0322	COMP.FTG;1/4 BRASS INSERT	0.51
HFO-0323	COMP.FTG;3/8 BRASS INSERT	0.51
HFO-0324	COMP.FTG;1/2 BRASS INSERT	0.85



Price List

Part Number	Description	List Price (Each)
HFO-0325	COMP.FTG;1/4X1/4X1/8 MPT TEE	11.07
HFO-0326	COMP.FTG;1/4X1/4X1/4 MPT TEE	12.56
HFO-0327	COMP.FTG;3/16X1/8MPT CONNECTOR	3.62
HFO-0328	COMP.FTG;1/4X1/8MPT CONNECTOR	4.04
HFO-0329	COMP.FTG;1/4X1/4MPT CONNECTOR	6.38
HFO-0330	COMP.FTG;1/4X3/8MPT CONNECTOR	8.30
HFO-0331	COMP.FTG;3/8X1/8MPT CONNECTOR	4.68
HFO-0332	COMP.FTG;3/8X1/4 MPT CONNECTOR	4.89
HFO-0333	COMP.FTG;3/8X3/8MPT CONNECTOR	6.38
HFO-0334	COMP.FTG;3/8X1/2MPT CONNECTOR	10.64
HFO-0335	COMP.FTG;1/4X1/8FPTX1/8MPT	13.83
HFO-0336	COMP.FTG;3/16X1/8 MPT ELBOW	9.58
HFO-0337	COMP.FTG;1/4X1/8 MPT ELBOW	5.53
HFO-0338	COMP.FTG;1/4X1/4 MPT ELBOW	6.38
HFO-0339	COMP.FTG;3/8X1/8 MPT ELBOW	14.90
HFO-0340	COMP.FTG;3/8X1/4 MPT ELBOW	13.83
HFO-0341	COMP.FTG;3/8X3/8 MPT ELBOW	19.15
HFO-0342	COMP.FTG;3/8X1/2 MPT ELBOW	20.22
HFO-0343	COMP.FTG;1/4X1/8 MPT X 1/4 TEE	18.09
HFO-0344	COMP.FTG;1/4X1/4 MPT X 1/4 TEE	14.90
HFO-0346	COMP.FTG;1/4 BRASS NUT	1.28
HFO-0347	COMP.FTG;3/8 BRASS NUT	1.70
HFO-0348	COMP.FTG;1/4 NEEDLE VALVE	18.09
HFO-0349	COMP.FTG;3/8 NEEDLE VALVE	29.79
HFO-0350	COMP.FTG;3/16X3/16X3/16 TEE	21.28
HFO-0351	COMP.FTG;1/4X1/4X1/4 TEE	12.77
HFO-0352	COMP.FTG;3/8X3/8X1/4 TEE	18.09
HFO-0353	COMP.FTG;3/8X3/8X3/8 TEE	14.90
HFO-0354	COMP.FTG;1/4 SEAL PLUG	4.04
HFO-0501	PIPE FTG;1/4 MPT X 1/8 FPT	2.13
HFO-0502	PIPE FTG;3/8 MPT X 1/8 FPT	3.19
HFO-0503	PIPE FTG;3/8 MPT X 1/4 FPT	2.55
HFO-0504	PIPE FTG;1/2 MPT X 1/8 FPT	5.32
HFO-0505	PIPE FTG;1/2 MPT X 1/4 FPT	4.04
HFO-0506	PIPE FTG;1/2 MPT X 3/8 FPT	3.19
HFO-0507	PIPE FTG;3/4 MPT X 1/4 FPT	12.56
HFO-0508	PIPE FTG;1/8 FPT COUPLING	4.04
HFO-0509	PIPE FTG;1/4 FPT COUPLING	5.32
HFO-0510	PIPE FTG;1/8 FPT DROPPED ELL	25.32
HFO-0511	PIPE FTG;1/8 FPT CROSS	21.28
HFO-0512	PIPE FTG;1/4 FPT CROSS	29.79
HFO-0513	PIPE FTG;1/8 90 DEG. ELBOW	10.64
HFO-0514	PIPE FTG;1/4 90 DEG. ELBOW	10.64
HFO-0515	PIPE FTG;1/8 FPT X 1/8 MPT ELL	3.40
HFO-0516	PIPE FTG;1/4 FPT X 1/4 MPT ELL	5.32
HFO-0517	PIPE FTG;1/8 MPT CLOSE NIPPLE	1.28
HFO-0518	PIPE FTG;1/8 MPT 1 1/2" NIPPLE	2.55
HFO-0519	PIPE FTG;1/4 MPT 1 1/2" NIPPLE	6.38
HFO-0520	PIPE FTG;1/4 MPT 3" NIPPLE	4.26
HFO-0521	PIPE FTG;3/8 MPT 2" NIPPLE	4.26
HFO-0522	PIPE FTG;1/2 MPT 2" NIPPLE	10.64
HFO-0523	PIPE FTG;1/8 FPT TEE	13.83
HFO-0524	PIPE FTG;1/4 FPT TEE	7.87
HFO-0525	PIPE FTG;1/8 HEX-HEAD PLUG	1.28
HFO-0526	PIPE FTG;1/4 HEX-HEAD PLUG	5.32
HFO-0527	PIPE FTG;1/8 BRASS PIPE CAP	2.55
HFO-0528	PIPE FTG;1/4 BRASS PIPE CAP	6.38
HLO-1001	6" FRONT END CLEVIS(PLATED)	10.54
HLO-1002	6" CRANK ARM	25.56
HLO-1004	ROTARY ACTUATOR DRIVE KIT(1/2)	21.28
HLO-1006	SHAFT ADAPTER (1/2")	17.02
HLO-1008	DRIVE PIN FOR DAMPER SHAFT	0.21
HLO-1009	RETAINER RING 1/2"	0.34
HLO-1011	DRIVE BUSHING;1/2" TO 3/8"	2.35



Price List

Part Number	Description	List Price (Each)
HLO-1016	RETAINER (1/2")	8.51
HLO-1020	CRANKARM KIT FOR MEP-7000's	191.53
HLO-4001	CRANKARM KIT FOR MEP-4000 ACT	63.84
HMO-1001	6" STRAP(PLATED)	5.73
HMO-1002	6"ACTUATOR FLOOR FLANGE(PLATED	75.10
HMO-1003	ANTI-ROTATION ROTARY BRACKET	2.08
HMO-1102	Sub Panel for HCO-1102	38.31
HMO-4001	ANTI-R0TATION"T"BRKT;MEP-4 ACT	13.41
HMO-4002	ANTI-R0TATION,plstc,BRKT;MEP-4	2.24
HMO-4505	BRACKET FOR CSC-2000 SERIES	0.98
HMO-4506	BRACKET FOR YMC SWITCHES	16.81
HMO-4507	BRACKET&RETAINER FOR RCC-1500	12.77
HMO-4508	BRACKET FOR CSC-3000 SERIES 200-315-02	1.10
HMO-4509	MOUNTG.KIT CME`S	24.47
HMO-4511	MTG.BRKT. FOR RCC-1000 SERIES	3.19
HMO-4517	MOUNTING BRACKET (MEP-1200)	6.23
HMO-4518	FLEX. CONDUIT CONNECTOR	2.35
HMO-4519	MOUNT. BRACKET ASS'Y(MEP-1200)	6.38
HMO-4520	COMPRESSION CONNECTOR	8.51
HMO-4523	CAPILLARY MOUNTING CLIP	6.38
HMO-4525	ACT.MOUNTING BRACKET MEP-5000	2.13
HMO-4526	1/2 NPS ADAPTOR KIT	31.92
HMO-4528	V BOLT KIT - MEP-12XX ACT.	21.28
HMO-4530	FLEX CONDUIT CONNECTOR; ROUND	5.35
HMO-4532	1 oz THERMAL COMPOUND	63.84
HMO-4533	4" BRASS WELL	40.43
HMO-4534	4" STAINLESS STEEL WELL	74.48
HMO-4535	MOUNTING BRACKET ASMY(MEP-7XXX	8.20
HMO-4536	STOP KIT - MEP-7000	10.87
HMO-4543	6" BRASS WELL	74.48
HMO-4544	6" STAINLESS STEEL WELL	106.40
HMO-4602	RELAY SOCKET;DPDT RELAY	25.54
HMO-4604	MOUNTING RAIL END CLIP	5.32
HMO-4605	RELAY SOCKET FOR 3 PDT RELAYS	27.67
HMO-4606	RELAY SOCKET FOR 4 PDT RELAYS	36.18
HMO-4607	POWER RELAY SOCKET FOR DPDT	21.28
HMO-4608	POWER RELAY SOCKET FOR 3PDT	29.79
HMO-5001	TOGGLE MOUNT FOR WALL STAT	8.51
HMO-5002	INSULATING PLATE;LT. ALMOND	8.51
HMO-5007	INSULATING SURFACE MOUNT.BLOCK	8.51
HMO-5008	DUAL MINI MOUNTING ASSY.ALMOND	19.85
HMO-5011	DUAL MINI MOUNTING ASSY.WHITE	19.85
HMO-5012	INS.BACKPLATE;4 1/2 X 2 3/4;W	8.51
HMO-5013	DEEP BACKPLATE;4 1/2 X 2 3/4;W	8.51
HMO-5014	BACKPLATE,MINI-STAT;SHALLOW;LT	8.51
HMO-5016	BACKPLATE,MINI-STAT;SHALLOW;W	8.51
HMO-5018	MTG.BRACKET FOR CTC-4101	8.51
HMO-5022	MOUNTING PLATE; CTC/CTE	8.51
HMO-5023	HOLLOW WALL MOUNTING BRACKET	8.51
HMO-5024	2x3 STAT WALL PLATE;LT.AL/ALUM	12.56
HMO-5025	ST GUARD;CLR;3 1/2X6 3/8X3 1/4	85.12
HMO-5026	2x3 STAT WALL PLATE;WHITE/ALUM	13.83
HMO-5027	MOUNTING PLATE; CTC/CTE	8.51
HMO-5030	2x3 STAT WALL PLATE;LT.ALMOND	12.56
HMO-5031	2x3 STAT WALL PLATE;WHITE	13.83
HMO-5034	WALL PLT KIT-MINISTAT,UK LT.AL	8.51
HMO-5035	MTG.PLATE - MINI STAT,UK WHITE	8.51
HMO-5036	MINI STAT PLATE;LT ALMOND-VER	13.83
HMO-5037	MINI STAT PLATE;WHITE-VER	13.83
HMO-5038	MINI STAT PLATE;WHITE-HORZ	13.83
HMO-5039	MINI STAT PLATE;LT.ALMOND;HORZ	13.83
HMO-5042	WALL PLATE 4.5SQ,LA,UNIVRSL MT	13.83
HMO-5043	WALL PLATE 4.5SQ,W,UNIVRSL MT	13.83
HMO-5044	WALL PLATE KIT LT AL(CTE-6100)	12.77



Price List

Part Number	Description	List Price (Each)
HMO-5500	T'STAT UPGRADE KIT;LT.ALMOND	85.12
HMO-6036	WALL PLATE;2X2SENSORS;SQROUND	12.77
HPO-0002	THERM.COVER(LARGE,BLANK, Lt. Almond)	12.55
HPO-0004	RETAINER 002-107-01	2.13
HPO-0005	CLEVIS PIN 002-307-03	2.13
HPO-0006	SNAP PIN 002-109-01	2.13
HPO-0009	PE DIAPHRAGM	3.24
HPO-0031	MINI-STAT SET-POINT COVER;WH	5.27
HPO-0032	MINI-STAT SET-POINT COVER;LT.A	5.27
HPO-0035	MINI STAT COVER/KMC LOGO WHITE	9.12
HPO-0036	MINI STAT COVER/KMC LT. ALMOND	9.12
HPO-0038	DIAPHRAGM (MCP-3631)002-400-01	20.43
HPO-0044	SPARE COVER SCREWS, CTC-1600	2.13
HPO-0045	SPARE PUSH BUTTONS, CTC-1600	1.16
HPO-0046	SPARE SCALE PINS, CTC-1600	1.16
HPO-0047-10	SCALE PLATE; KMC HORZ.(F); CTC-1600	15.04
HPO-0048-10	SCALE PLATE; KMC VERT.(F); CTC-1600	15.04
HPO-0049-11	SCALE PLATE; KMC HORZ.(C); CTC-1600	15.04
HPO-0050-11	SCALEPLATE; KMC VERT.(C); CTC-1600	15.04
HPO-0051	SPARE CLEAR WINDOW, CTC-1600	4.26
HPO-0060-10	SCALE PLATE, FRNHT, HORIZONTAL; CTE-5100	15.96
HPO-0060-11	SCALE PLATE, CELSIUS, HORIZ.; CTE-5100	15.96
HPO-0061-10	SCALE PLATE, FRNHT, VERTICAL; CTE-5100	15.96
HPO-0061-11	SCALE PLATE, CELSIUS, VERTICAL; CTE-5100	15.96
HPO-0062	300 RPM MOTOR & GEARBOX	84.49
HPO-1103	PARTS FOR CMC-1001	15.68
HPO-1215	RITZ SCALE PLATE W/HOLES	4.70
HPO-1218	FACE PLATE	4.70
HPO-1219	FACE PLATE PRINTED	4.70
HPO-1220	FACE PLATE FOR YME-2007	4.70
HPO-1221	SCALE PLATE, FAN COIL CONTROLR	4.70
HPO-1320	LABEL STRIP; CTC-1600 SERIES	4.40
HPO-1501	BLANK COVER (ALMOND)	12.78
HPO-1502	BLANK COVER (WHITE)	12.78
HPO-1503	BLANK COVER BRUSHED ALUMINUM	41.14
HPO-1511	COVER W/WINDOW (ALMOND)	12.78
HPO-1512	COVER W/WINDOW (WHITE)	12.78
HPO-1513	COVER W/WINDOW; BRUSHED ALUM.	63.84
HPO-1514	COVER W/WINDOW; WHITE/ZINC	63.84
HPO-1516	COVER W/WINDOW;LT. ALMOND/ZINC	63.84
HPO-1521	INDEX COVER;LT.ALMOND ABS	12.78
HPO-1522	INDEX COVER; WHITE ABS	12.78
HPO-1523	INDEX COVER; BRUSHED ALUMINUM	63.84
HPO-1526	INDEX COVER;LT. ALMOND/ZINC	63.84
HPO-4611	SCREW OR DIN RAIL HEAT SINK	170.25
HPO-4612	5-PACK THERMAL PADS	22.35
HPO-5001	5# FEEDBACK SPRING;BOTH VALVES	31.92
HPO-5003	10#FEEDBACK SPRING;BOTH VALVES	31.92
HPO-5005	F-BACK SPRING;5#;1-1.125 TRAVL	31.92
HPO-5006	F.B. SPRING;5#;1.25-1.5 TRAVEL	31.92
HPO-5007	F.B. SPRING;10#;1-1.125 TRAVEL	31.92
HPO-5008	F.B. SPRING;10#;1.25-1.5TRAVEL	31.92
HPO-5010	FEEDBACK ARM FOR 43.4"TOP	4.26
HPO-5011	ADJUSTING BOLT (POSITIONER)	3.40
HPO-5012	HEX NUT (10-32 x 1/8)	0.11
HPO-5013	PACKING KIT; VCP-41,42,43	9.45
HPO-5014	PACKING KIT FOR V61,V62,V63	12.77
HPO-5015	1/2"FERRULE FOR V61,V62,V63	2.13
HPO-5016	43 SQ" VALVE POSITIONER KIT	468.18
HPO-5017	GASKET 3/4"	2.13
HPO-5018	GASKET 1"	2.55
HPO-5020	1/2" NUT FOR V61,V62,V63	4.26
HPO-5021	NUT 3/4"	7.45
HPO-5022	NUT 1" 8.51	



Price List

Part Number	Description	List Price (Each)
HPO-5024	1/2" MPT FITTING;V61,V62,V63	6.38
HPO-5025	1/2"SWEAT FITTING;V61,V62,V63	6.38
HPO-5026	NPT NIPPLE 3/4"	10.64
HPO-5027	NPT NIPPLE 1"	14.90
HPO-5030	REP.BON.ASS.,1/2", 2.0 CV	41.50
HPO-5031	REP.BON.ASS.,1/2", 2.6 CV	41.50
HPO-5032	REP.BON.ASS. 3/4", 2.9 CV	61.71
HPO-5033	REP.BON.ASS. 3/4",4.7 CV	61.71
HPO-5034	REP.BON.ASS.1/2",3 WAY	41.50
HPO-5035	REP.BON.1/2",2-WAY, 1.6 Cv	41.50
HPO-5036	VALV.POS.KIT; 75 & 115 SQ IN	595.87
HPO-5038	PACK'G KIT;1"-14 w/3/8" STEM	170.25
HPO-5039	PACK'G KIT;115" ACT w/1/2"STEM	191.53
HPO-5046	SPRING(3-8PSI 11.4 SQ IN TOP)	9.58
HPO-5047	SPRING(3-13PSI 11.4 SQ IN TOP)	9.58
HPO-5048	SPRING(8-13PSI 11.4 SQ IN TOP)	9.58
HPO-5049	SPRING(3-8PSI 43.4 SQ IN TOP) 062-200-23	17.02
HPO-5050	SPRING(3-13PSI 43.4 SQ IN TOP)	17.02
HPO-5051	SPRING(8-13PSI 43.4 SQ IN TOP) 062-200-24	17.02
HPO-5055	AMPLIFIER ADAPTER (HEIMEIER)	22.67
HPO-5058	RETAINING NUT(1/2"NPT FITTING)	3.83
HPO-5059	1/2" THREADED FITTING	11.49
HPO-5065	DISC 1/2" 2.0 CV	7.45
HPO-5066	DISC 1/2" 2.6 CV	7.45
HPO-5067	DISC 3/4" 2.9 CV	9.58
HPO-5068	DISC 3/4" 4.7 CV	9.58
HPO-5069	DISC 1/2" 3WAY 1.7 CV	7.45
HPO-5070	DISC 3/4" 3WAY 4.9CV	11.47
HPO-5072	REPAIR KIT BALL VALVE TO ACT. SHORT	155.35
HPO-5088	NON-ADJ V-RING PACK'G KIT	212.81
HPO-5101	3-8# TOP FOR VCP-6 SERIES;8MM	106.40
HPO-5102	8-13 TOP FOR VCP-6 SERIES;8MM	106.40
HPO-5103	3-13# TOP FOR VCP-6 SERIES;8MM	106.40
HPO-5104	3-8# TOP FOR VCP-6 SERIES;4MM	106.40
HPO-5105	8-13# TOP FOR VCP-6 SERIES;4MM	106.40
HPO-5106	3-13# TOP FOR VCP-6 SERIES;4MM	106.40
HPO-5107	9-14# TOP FOR VCP-6 SERIES;8MM	106.40
HPO-5108	9-14# TOP FOR VCP-6 SERIES;4MM	106.40
HPO-5110	VALVE TOP; 11.4"; NO SPRING	140.45
HPO-5111	VALVE TOP;11.4";NO SPRING SIL.	183.02
HPO-5113	DIAPHRAGM 43.4" TOP SILICONE	288.92
HPO-5114	DIAPHRAGM 005-400-01	6.38
HPO-5115	DIAPHRAGM FOR 43.4" VALVE TOP	73.74
HPO-5117	REP.DIA. 75SQIN WARREN VLVETOP	829.96
HPO-5118	REP.DIA.115SQIN WARREN VLVETOP	1170.45
HPO-5119	REP.DIA.84SQIN WARREN VLVETOP	1659.92
HPO-5131	3-8# TOP;VCP-6 SERIES;8MM;SIL	170.25
HPO-5132	8-13 TOP;VCP-6 SERIES;8MM;SIL	170.25
HPO-5133	3-13# TOP;VCP-6 SERIES;8MM;SIL	170.25
HPO-5134	3-8# TOP;VCP-6 SERIES;4MM;SIL	170.25
HPO-5135	8-13# TOP;VCP-6 SERIES;4MM;SIL	170.25
HPO-5136	3-13# TOP;VCP-6 SERIES;4MM;SIL	170.25
HPO-5137	9-14# TOP;VCP-6 SERIES;8MM;SIL	170.25
HPO-5138	9-14# TOP;VCP-6 SERIES;4MM;SIL	170.25
HPO-5201	VALVE LINKAGE (SCREWED/5000)	208.55
HPO-5202	VALVE LINKAGE (SCREWED/1200)	208.55
HPO-5205	LINKGE;PLSTC;3/4"LIFT;MEP-70XX	229.83
HPO-5207	LINKGE;MTL;3/4"LIFT;MEP-77XX	553.31
HPO-5208	LINKGE;MTL;1-3/8"LIFT;MEP-77XX	702.27
HPO-5209	LNKGE;MTL;1-3/8"LIFT;DUALMEP-7	744.83
HPO-5211	VALVE LINKAGE (MEP-5000)B-C	319.21
HPO-5212	VALVE LINKAGE(MEP-1200)B-C	319.21
HPO-5213	VALVE LINKAGE(MEP1200)B-C 2"	319.21
HPO-5215	VLVE LINKGE(MEP5000)ROBERTSHAW	284.00



Part Number	Description	List Price (Each)
HPO-6001	Ferrite Tube ; Clampon	32.50
HSO-5001	TWO PRONG TEST LEAD ELE/STAT	36.81
HSO-5012	Nailor CABLE;THERMOSTAT 50FT w/RJ12	74.48
HTO-1001	Wrench ; Conduit Spanner	31.80
HTO-1012	2" 2000 CALIBRATION PANEL	4111.55
HTO-1021	1" 3011 CALIBRATION PANEL	4111.55
HTO-1022	2" 3011 CALIBRATION PANEL	4111.55
HTO-1032	2" COMBO CALIBRATION PANEL	6460.68
I		
ICI-1005	2"GAGE;0-30PSI;1/8"MPT	31.92
ICI-1007	2" 0-30# 1/4" C.B.	31.92
ICI-1009	2" 0-160# 1/4" C.B.	31.92
ICI-3102	3 1/2"RECEIVER GAGE;3-15 PSI	191.53
IEE-1001	REMOTE ALARM LED	40.63
IEE-1002	REMOTE ALARM & PILOT LED	47.40
IEE-1003	REMOTE P.B. RESET & ALARM LED	54.18
IEE-1004	P.B.RESET,ALARM LED/PILOT LED	95.76
IEE-1005	REMOTE KEY RESET & ALARM LED	135.45
IEE-1006	KEY RESET,ALARM LED&PILOT LED	148.99
IEE-1007	REMOTE ALARM HORN	81.26
IEE-1008	HORN W/KEY RESET & LED'S	230.26
IEI-1001	Display, LCD for CO & CO2 Detectors	124.00
IEI-1110	FIRST WATCH, REF. ALARM MONTR	270.38
IEI-2001	FUME HOOD PERFORMANCE MONITOR	270.38
K		
KIT-1001	Kit ; Cooling Only	543.45
KIT-1002	Kit ; Electrical Reheat & FP	760.38
KIT-1003	Kit ; HW Reheat & FP ;22k BTU	925.68
KIT-1004	Kit ; HW Reheat & FP ;56k BTU	925.68
KIT-1005	Kit ; Air Flow Sensing	123.96
M		
MCP-0103	BARE ACTUATOR 2X1 5-10 STD	113.85
MCP-0105	BARE ACTUATOR 2X1 8-13 STD	113.85
MCP-0143	BARE ACTUATOR 2X1 5-10 THD	113.85
MCP-0145	BARE ACTUATOR 2X1 8-13 THD	113.85
MCP-0202	BARE ACTUATOR 2X2 3-12 STD	113.85
MCP-0203	BARE ACTUATOR 2X2 5-10 STD	113.85
MCP-0205	BARE ACTUATOR 2X2 8-13 STD	113.85
MCP-0206	BARE ACTUATOR 2X2 10-15 STD	113.85
MCP-0208	BARE ACTUATOR 2X2 4-8 STD	113.85
MCP-0243	BARE ACTUATOR 2X2 5-10 THP	113.85
MCP-0245	BARE ACTUATOR 2X2 8-13 THP	113.85
MCP-0246	BARE ACTUATOR 2X2 10-15 THP	113.86
MCP-0248	BARE ACTUATOR 2X2 4-8 THP	113.85
MCP-0252	BARE ACTUATOR 2X2 3-12 CLEVIS	113.85
MCP-0253	BARE ACTUATOR 2X2 5-10 CLEVIS	113.85
MCP-0255	BARE ACTUATOR 2X2 8-13 CLEVIS	113.85
MCP-0256	BARE ACTUATOR 2X2 10-15 CLEVIS	113.85
MCP-0258	BARE ACTUATOR 2X2 4-8 CLEVIS	113.85
MCP-0302	BARE ACTUATOR 3X3 3-12 STD	158.54
MCP-0303	BARE ACTUATOR 3X3 5-10 STD	158.54
MCP-0305	BARE ACTUATOR 3X3 8-13 STD	158.54
MCP-0306	BARE ACTUATOR 3X3 10-15 STD	158.54
MCP-0308	BARE ACTUATOR 3X3 4-8 STD	158.54
MCP-0335	BARE ACT. 3X3 8-13 DEL. BUSH'G	158.54
MCP-0352	BARE ACTUATOR 3X3 3-12 CLEVIS	158.54
MCP-0353	BARE ACTUATOR 3X3 5-10 CLEVIS	158.54
MCP-0355	BARE ACTUATOR 3X3 8-13 CLEVIS	158.54
MCP-0356	BARE ACTUATOR 3X3 10-15 CLEVIS	158.54
MCP-0358	BARE ACTUATOR 3X3 4-8 CLEVIS	158.54
MCP-0360	BARE Actuator 3 X 2 HESITATION ACT.	191.53



Price List

Part Number	Description	List Price (Each)
MCP-0402	BARE ACTUATOR 4X4 3-12 STD	216.00
MCP-0403	BARE ACTUATOR 4X4 5-10 STD	216.00
MCP-0405	BARE ACTUATOR 4X4 8-13 STD	216.00
MCP-0406	BARE ACTUATOR 4X4 10-15 STD	216.00
MCP-0408	BARE ACTUATOR 4X4 4-8 STD	216.00
MCP-0435	BARE ACTUATOR 4X4 8-13	216.00
MCP-0452	BARE ACTUATOR 4X4 3-12 CLEVIS	216.00
MCP-0453	BARE ACTUATOR 4X4 5-10 CLEVIS	216.00
MCP-0455	BARE ACTUATOR 4X4 8-13 CLEVIS	216.00
MCP-0456	BARE ACTUATOR 4X4 10-15 CLEVIS	216.00
MCP-0458	BARE ACTUATOR 4X4 4-8 CLEVIS	216.00
MCP-0460	BARE ACTUATOR 4X4 HESITATION ACT.	234.09
MCP-0492	BARE ACTUATOR 4X4 METAL CLEVIS ACT. 3-12	216.00
MCP-0493	BARE ACTUATOR 4X4 5-10 METAL	216.00
MCP-0495	BARE ACTUATOR 4X4 METAL CLEVIS ACT. 8-13	216.00
MCP-0496	BARE ACTUATOR 4X4 10-15 METAL	216.00
MCP-0498	BARE ACTUATOR 4X4 4-8 METAL	216.00
MCP-0655	BARE 6X6 ACTUATOR;8-13 PSI	638.43
MCP-0695	BARE 6X6 METAL ACT; 8-13 PSI	680.99
MCP-10202308	2X2 ACTUATOR 3-12 5/16" B-J	165.99
MCP-10202311	2X2 ACTUATOR 3-12 1/2" C-ARM	176.00
MCP-10202312	2X2 ACTUATOR 3-12 3/8" C-ARM	176.00
MCP-10203308	2X2 ACTUATOR 5-10 5/16" B-J	165.99
MCP-10203311	2X2 ACTUATOR 5-10 1/2" C-ARM	176.00
MCP-10203312	2X2 ACTUATOR 5-10 3/8" C-ARM	176.00
MCP-10205308	2X2 ACTUATOR 8-13 5/16" B-J	165.99
MCP-10205311	2X2 ACTUATOR 8-13 1/2" C-ARM	176.00
MCP-10205312	2X2 ACTUATOR 8-13 3/8" C-ARM	176.00
MCP-10206308	2X2 ACTUATOR 10-15 5/16" B-J	165.99
MCP-10206311	2X2 ACTUATOR 10-15 1/2" C-ARM	212.81
MCP-10206312	2X2 ACTUATOR 10-15 3/8" C-ARM	212.81
MCP-10208308	2X2 ACTUATOR 4-8 5/16" B-J	165.99
MCP-10208311	2X2 ACTUATOR 4-8 1/2" C-ARM	176.00
MCP-10208312	2X2 ACTUATOR 4-8 3/8" C-ARM	176.00
MCP-10301108	3X3 ACTUATOR P-P 5/6" B-J	468.18
MCP-10301111	3X3 ACTUATOR P-P 1/2" C-ARM	510.74
MCP-10301112	3X3 ACTUATOR P-P 3/8" C-ARM	510.74
MCP-10302108	3X3 ACTUATOR 3-12 5/16" B-J	221.32
MCP-10302111	3X3 ACTUATOR 3-12 1/2" C-ARM	266.01
MCP-10302112	3X3 ACTUATOR 3-12 3/8" C-ARM	266.01
MCP-10303108	3X3 ACTUATOR 5-10 5/16" B-J	221.32
MCP-10303111	3X3 ACTUATOR 5-10 1/2" C-ARM	266.01
MCP-10303112	3X3 ACTUATOR 5-10 3/8" C-ARM	266.01
MCP-10305108	3X3 ACTUATOR 8-13 5/16" B-J	221.32
MCP-10305111	3X3 ACTUATOR 8-13 1/2" C-ARM	266.01
MCP-10305112	3X3 ACTUATOR 8-13 3/8" C-ARM	266.01
MCP-10306108	3X3 ACTUATOR 10-15 5/16" B-J	221.32
MCP-10306111	3X3 ACTUATOR 10-15 1/2" C-ARM	266.01
MCP-10306112	3X3 ACTUATOR 10-15 3/8" C-ARM	266.01
MCP-10308108	3X3 ACTUATOR 4-8 5/16" B-J	221.32
MCP-10308111	3X3 ACTUATOR 4-8 1/2" C-ARM	266.01
MCP-10308112	3X3 ACTUATOR 4-8 3/8" C-ARM	266.01
MCP-10309108	3X3 ACTUATOR P-P 5/6" B-J	468.18
MCP-10309111	3X3 ACTUATOR P-P 1/2" C-ARM	510.74
MCP-10309112	3X3 ACTUATOR P-P 3/8" C-ARM	510.74
MCP-10401208	4X4 ACTUATOR P-P 5/16" B-J	532.02
MCP-10401211	4X4 ACTUATOR P-P 1/2" C-ARM	574.59
MCP-10401212	4X4 ACTUATOR P-P 3/8" C-ARM	574.59
MCP-10402208	4X4 ACTUATOR 3-12 5/16" B-J	276.65
MCP-10402211	4X4 ACTUATOR 3-12 1/2" C-ARM	319.21
MCP-10402212	4X4 ACTUATOR 3-12 3/8" C-ARM	319.21
MCP-10403208	4X4 ACTUATOR 5-10 3/16" B-J	276.65
MCP-10403211	4X4 ACTUATOR 5-10 1/2" C-ARM	319.21
MCP-10403212	4X4 ACTUATOR 5-10 3/8" C-ARM	319.21



Part Number	Description	List Price (Each)
MCP-10405208	4X4 ACTUATOR 8-13 5/16" B-J	276.65
MCP-10405211	4X4 ACTUATOR 8-13 1/2" C-ARM	319.21
MCP-10405212	4X4 ACTUATOR 8-13 3/8" C-ARM	319.21
MCP-10406208	4X4 ACTUATOR 10-15 5/16" B-J	276.65
MCP-10406211	4X4 ACTUATOR 10-15 1/2" C-ARM	319.21
MCP-10406212	4X4 ACTUATOR 10-15 3/8" C-ARM	319.21
MCP-10408208	4X4 ACTUATOR 4-8 5/16" B-J	276.65
MCP-10408211	4X4 ACTUATOR 4-8 1/2" C-ARM	319.21
MCP-10408212	4X4 ACTUATOR 4-8 3/8" C-ARM	319.21
MCP-10409208	4X4 ACTUATOR P-P 5/16" B-J	532.02
MCP-10409211	4X4 ACTUATOR P-P 1/2" C-ARM	574.59
MCP-10409212	4X4 ACTUATOR P-P 3/8" C-ARM	574.59
MCP-11301520	3X3 ACTUATOR P-P POST MOUNT	510.74
MCP-11302520	3X3 ACTUATOR 3-12 POST MOUNT	266.01
MCP-11303520	3X3 ACTUATOR 5-10 POST MOUNT	266.01
MCP-11305520	3X3 ACTUATOR 8-13 POST MOUNT	266.01
MCP-11306520	3X3 ACTUATOR 10-15 POST MOUNT	266.01
MCP-11308520	3X3 ACTUATOR 4-8 POST MOUNT	266.01
MCP-11309520	3X3 ACTUATOR P-P POST MOUNT	510.74
MCP-11401003	4X4 ACT;REAR POST;POSITIONER	532.02
MCP-11401054	CLEVIS W/LINKAGE; P-P	532.02
MCP-11401403	PLASTIC; 4" STROKE W/POS	532.02
MCP-11401443	4X4 ACTUATOR P-P VAC B-FLY	532.02
MCP-11401520	4X4 ACTUATOR P-P POST MOUNT	532.02
MCP-11402520	4X4 ACTUATOR 3-12 POST MOUNT	468.18
MCP-11403520	4X4 ACTUATOR 5-10 POST MOUNT	468.18
MCP-11405003	4X4 ACT;REAR POST; 8-13 PSI	468.18
MCP-11405054	4x4 CLEVIS W/LINKAGE, 8-13	468.18
MCP-11405403	PLASTIC; 4" STROKE W/O POS.	468.18
MCP-11405443	4X4 ACTUATOR 8-13 VAC B-FLY	468.18
MCP-11405520	4X4 ACTUATOR 8-13 POST MOUNT	468.18
MCP-11406520	4X4 ACTUATOR 10-15 POST MOUNT	468.18
MCP-11408520	4X4 ACTUATOR 4-8 POST MOUNT	468.18
MCP-11409520	4X4 ACTUATOR P-P POST MOUNT	532.02
MCP-11601020	6X6 ACTUATOR W/LINKAGE W/POS	978.93
MCP-11601101	6X6 ACTUATOR P-P NO LINKAGE	978.93
MCP-11601102	CLEVIS LNKG ONLY; KYSTN VLV	978.93
MCP-11601103	6X6 ACT;REAR MOUNT;POSITIONER	978.93
MCP-11601104	8-13 W/POS;BACKSTRAP & CLEVIS	978.93
MCP-11601111	6X6 ACTUATOR P-P ADT. C-ARM	978.93
MCP-11601114	6x6 ACTUATOR,P-P,CLEVIS	978.93
MCP-11605020	6X6 ACUATOR W/LINKAGE 8-13	403.79
MCP-11605101	6X6 ACTUATOR 8-13 NO LINKAGE	659.71
MCP-11605102	6X6 CLEVIS LNKG ONLY;KYSTN VLV	659.71
MCP-11605103	6X6 ACTUATOR,REAR CLEVIS MOUNT	659.71
MCP-11605104	8-13 W/O POS;BACKSTRAP & CLEVIS	659.71
MCP-11605111	6X6 ACTUATOR 8-13 ADJ. C-ARM	936.36
MCP-11605114	6X6; 8-13; FOR RUSKIN	659.71
MCP-11609111	6X6 ACTUATOR P-P ADT. C-ARM	1319.42
MCP-11609114	6X6 ACTUATOR M-P CLEVIS	1319.42
MCP-12310211	3X2 HESITATION;RIGHT ANGLE	266.01
MCP-12310420	3X2 HESITATION POST NO BRK	266.01
MCP-12310481	OA ACTUATOR FOR AAF AV UNI	266.01
MCP-12310485	AAF HESITATION ACTUATOR	266.01
MCP-12310486	HESITATION MOTOR;NESBITT/M.S.I	266.01
MCP-12310487	AAF HESITATION MOTOR	266.01
MCP-12310488	AAF HESITATION ACTUATOR	266.01
MCP-12310489	3X2 HESITATION AAF OUTSIDE AIR	266.01
MCP-12310520	3X2 HESITATION POST MOUNT	266.01
MCP-12410211	4X3 HESITATION RIGHT ANGLE	393.70
MCP-12410520	4X3 HESITATION;POST MOUNT	393.70
MCP-36312000	ROTARY ACTUATOR (3-13)	118.00
MCP-36313000	ROTARY ACTUATOR 5-10 PSI	118.00
MCP-36313001	ROTARY ACT. SQ.DRIVE 5-10 PSI	118.00



Price List

Part Number	Description	List Price (Each)
MCP-36315000	ROTARY ACTUATOR (8-13)	118.00
MCP-36315001	ROTARY ACT. SQ.DRIVE 8-13PSI	118.00
MCP-36318000	ROTARY ACTUATOR 3-8	118.00
MCP-36318001	ROTARY ACT. SQ.DRIVE 3-8 PSI	118.00
MCP-51402208	4X4 METAL ACT. 3-12 5/16 B-J	276.65
MCP-51402211	4X4 METAL ACT. 3-12 1/2 C-ARM	331.98
MCP-51402212	4X4 METAL ACT. 3-12 3/8" C-ARM	331.98
MCP-51402520	4X4 METAL ACT. 3-12 POST MOUNT	331.98
MCP-51403208	4X4 METAL ACT. 5-10 5/16 B-J	276.65
MCP-51403211	4X4 METAL ACT. 5-10 1/2 C-ARM	331.98
MCP-51403212	4X4 METAL ACT. 5-10 3/8 C-ARM	331.98
MCP-51403520	4X4 METAL ACT. 5-10 POST MOUNT	331.98
MCP-51405003	4X4 ACT;REAR POST; 8-13 PSI	276.65
MCP-51405020	4X4 METAL BACK W/LINKAGE 8-13	276.65
MCP-51405054	POST MTD W/CLEVIS; 8-13	276.65
MCP-51405208	4X4 METAL ACT. 8-13 5/16 B-J	276.65
MCP-51405211	4X4 METAL ACT. 8-13 1/2 C-ARM	331.98
MCP-51405212	4X4 METAL ACT. 8-13 3/8 C-ARM	331.98
MCP-51405403	METAL; 4" STROKE W/O POS.	276.65
MCP-51405443	8-13 PSI VAC B-FLY	276.65
MCP-51405520	4X4 METAL ACT. 8-13 POST MOUNT	331.98
MCP-51406208	4X4 METAL ACT. 10-15 5/16 B-J	276.65
MCP-51406211	4X4 METAL ACT. 10-15 1/2 C-ARM	331.98
MCP-51406212	4X4 METAL ACT. 10-15 3/8 C-ARM	331.98
MCP-51406520	4X4 METAL ACT.10-15 POST MOUNT	331.98
MCP-51408208	4X4 METAL ACT. 4-8 5/16 B-J	276.65
MCP-51408211	4X4 METAL ACT. 4-8 C-ARM	331.98
MCP-51408212	4X4 METAL ACT. 4-8 3/8 C-ARM	331.98
MCP-51408520	4X4 METAL ACT 4-8 POST MOUNT	331.98
MCP-51409003	4X4 ACT;REAR POST; POSITIONER	595.87
MCP-51409020	CLEVIS BACK W/LINKAGE; P-P	595.87
MCP-51409054	4X4 POST MTD;POSITIONER	595.87
MCP-51409208	4X4 METAL ACT. P-P 5/16 B-J	595.87
MCP-51409211	4X4 METAL ACT. P-P 1/2 C-ARM	595.87
MCP-51409212	4X4 METAL ACT. P-P 3/8 C-ARM	595.87
MCP-51409403	METAL; 4" STROKE W/ POS.	595.87
MCP-51409443	4X4 METAL ACTUATOR;POSITIONER	595.87
MCP-51409520	4X4 METAL ACT.P-P POST MOUNT	595.87
MCP-51452208	4X4 SMOKE ACT. 3-12 5/16 B-J	331.98
MCP-51452211	4X4 SMOKE ACT. 3-12 1/2" SHFT	331.98
MCP-51452212	4X4 SMOKE ACT. 3-12 3/8" SHFT	331.98
MCP-51452520	4x4 SMOKE ACT.;3-12;POST MTD.	331.98
MCP-51453208	4X4 SMOKE ACT. 5-10 5/16 B/J	331.98
MCP-51453211	4X4 SMOKE ACT. 5-10 1/2" SHFT	331.98
MCP-51453212	4X4 SMOKE ACT. 5-10 3/8" SHFT	331.98
MCP-51453520	4x4 SMOKE ACT.;5-10;POST MTD	331.98
MCP-51455208	4X4 SMOKE ACT. 8-13 5/16 B/J	331.98
MCP-51455211	4X4 SMOKE ACT.;8-13;1/2" SHFT	331.98
MCP-51455212	4X4 SMOKE ACT. 8-13 3/8" SHFT	331.98
MCP-51455520	4x4 SMOKE ACT.;8-13;POST MTD	331.98
MCP-51456208	4X4 SMOKE ACT. 10-15 5/16 B/J	331.98
MCP-51456211	4X4 SMOKE ACT. 10-15 1/2" SHFT	331.98
MCP-51456212	4X4 SMOKE ACT. 10-15 3/8" SHFT	331.98
MCP-51456520	4X4 SMOKE ACT.;10-15;POST MTD	331.98
MCP-51458208	4X4 SMOKE ACT. 4-8 5/16 B/J	331.98
MCP-51458211	4X4 SMOKE ACT. 4-8 1/2" SHFT	331.98
MCP-51458212	4X4 SMOKE ACT. 4-8 3/8" SHFT	331.98
MCP-51458520	4X4 SMOKE ACT.;4-8;POST MTD	331.98
MCP-51601020	6X6 METAL ACTUATOR;POSITIONER	1234.30
MCP-51605020	6X6 METAL BACK W/LINKAGE 8-13	851.24
MCP-51605101	6X6 MET.;8-13;NOLINK;REARMOUNT	851.24
MCP-51605102	6X6 CLEVIS LINKAGE ONLY	851.24
MCP-51605103	ACTUATOR, REAR CLEVIS MOUNT	851.24
MCP-51605111	6X6 ACTUATOR 8-13 ADJ. C-ARM	936.36



Price List

Part Number	Description	List Price (Each)
MCP-51605114	6 X 6 METAL 8-13 FOR RUSKIN	893.80
MCP-51609020	6X6;ACTUATOR W/POS.,NO BRACKET	1234.30
MCP-51609101	6X6;METAL ACT.8-13 POSITIONER	1234.30
MCP-51609102	CLEVIS LNKG ONLY; KYSTNVLV	1234.30
MCP-51609103	6X6 ACT;REAR MOUNT;POSITIONER	1234.30
MCP-51609111	6X6;METAL ACT.8-13 POSITIONER	1234.30
MCP-51609114	6X6METAL W/POSITION.FOR RUSKIN	1234.30
MCP-6001	VALVE TOP; 5 SQ INCH; 3-8#	56.39
MCP-6002	VALVE TOP;5 SQ INCH;8-13#	56.39
MCP-6101	VALVE TOP; 5 SQ INCH; 3-8#; 3mm Travel	99.80
MCP-6102	VALVE TOP; 5 SQ INCH; 8-13#; 3mm Travel	99.80
MCP-80312099	ACTUATOR 3-8 PSI 1"STROKE	102.15
MCP-80312100	ACTUATOR 3-12PSI W/BRK W/O LKG	102.15
MCP-80312101	ACTUATOR(3-12 PSI/wBRACKET)	102.15
MCP-80312102	3-12# ACTUATOR;3X1 11/16 W/BRK	102.15
MCP-80312111	3X1 11/16 ACTUATOR 3-12 1/2 CA	218.13
MCP-80312112	3-12# ACTUATOR W/3/8" C-ARM	218.13
MCP-80313003	ACT(5-10 PSI/woBRACKET/wPIN)	102.15
MCP-80313100	ACTUATOR 5-10PSI W/BRK W/O LKG	102.15
MCP-80313101	ACTUATOR(5-10 PSIw/BRACKET)	102.15
MCP-80313102	5-10# ACTUATOR;3X1 11/16 W/BRK	102.15
MCP-80313111	5-10#ACTUATOR W/ 1/2" C-ARM	218.13
MCP-80313112	5-10# ACTUATOR W/ 3/8" C-ARM	218.13
MCP-80315100	ACTUATOR 8-13PSI W/BRK W/O LKG	102.15
MCP-80315101	ACTUATOR(8-13 PSI/wBRACKET)	102.15
MCP-80315102	8-13# ACTUATOR;3X1 11/16 W/BRK	102.15
MCP-80315111	8-13# ACTUATOR W/ 1/2" C-ARM	218.13
MCP-80315112	8-13# ACTUATOR W/ 3/8" C-ARM	218.13
MCP-80318100	ACTUATOR 4-8 PSI W/BRK W/O LKG	102.15
MCP-80318101	ACTUATOR(4-8 PSI/wBRACKET)	102.15
MCP-80318102	4-8 # ACTUATOR;3X1 11/16 W/BR	102.15
MCP-80318111	4-8 ACTUATOR W/ 1/2" C-ARM	218.13
MCP-80318112	4-8# ACTUATOR W/ 3/8" C-ARM	218.13
MCP-80352101	SMOKE DAMPER, 3-12 PSI	148.97
MCP-80352111	SMOKE DAMPER, 3-12, 1/2" SHFT	268.14
MCP-80352112	SMOKE DAMPER, 3-12, 3/8" SHFT	268.14
MCP-80353101	SMOKE DAMPER, 5-10 PSI	148.97
MCP-80353111	SMOKE DAMPER, 5-10, 1/2" SHFT	268.14
MCP-80353112	SMOKE DAMPER, 5-10, 3/8" SHFT	268.14
MCP-80355101	SMOKE DAMPER, 8-13 PSI	148.97
MCP-80355111	SMOKE DAMPER, 8-13, 1/2" SHFT	268.14
MCP-80355112	SMOKE DAMPER, 8-13, 3/8" SHFT	268.14
MCP-80358101	SMOKE DAMPER, 4-8 PSI	148.97
MCP-80358111	SMOKE DAMPER, 4-8, 1/2" SHFT	268.14
MCP-80358112	SMOKE DAMPER, 4-8, 3/8" SHFT	268.14
MEP-1501	ELEC.ACT.(100 DEG. SHIPPED CW)	200.04
MEP-1502	ELEC.ACT.(60 DEG. SHIPPED CW)	200.04
MEP-1503	ELEC.ACT.(45 DEG. SHIPPED CW)	200.04
MEP-1504	ELEC.ACT.(360 DEG./NO STOPS)	200.04
MEP-1505	ELEC.ACT.(100 DEG.SHIPPED CCW)	200.04
MEP-1506	ELEC.ACT.(60 DEG.SHIPPED CCW)	200.04
MEP-1507	ELEC.ACT.(45 DEG.SHIPPED CCW)	200.04
MEP-3001	ACTUATOR 24V,NC. BROWN	180.89
MEP-3006	ACTUATOR 24 V, NO, WHITE	180.89
MEP-3010	EMO III,MOT.ACT,24V,3 POINT	404.34
MEP-3011	EMO I,MOT ACTUATOR,24V,2-10V	489.46
MEP-3016	EMO I,MOT ACTUATOR,24V,10-2V	489.46
MEP-3501	Electric Valve Actuator; Normally Closed; ON/OFF; 24 VAC; Spring Return	148.40
MEP-3502	Electric Valve Actuator; Normally Closed; ON/OFF; 115 VAC; Spring Return	148.40
MEP-3503	Electric Valve Actuator; Normally Open; ON/OFF; 24 VAC; Spring Return	148.40
MEP-3504	Electric Valve Actuator; Normally Open; ON/OFF; 115 VAC; Spring Return	148.40
MEP-3510	Electric Modulating Valve Actuator; 24VAC Fail-in-Place; Floating	203.00
MEP-3511	Electric Modulating Valve Actuator; 24VAC Fail-in-Place; Proportional 0 -10VDC	289.00
MEP-3516	Electric Modulating Valve Actuator; 24VAC Fail-in-Place; Proportional 10 - 0VDC	289.00



Price List

Part Number	Description	List Price (Each)
MEP-4001	ACTUATOR;TRISTATE;40IN-LB	148.25
MEP-4002	ACTUATOR;PROPRTL;40IN-LB;FB POT	220.00
MEP-4003	Actuator, 24 VAC Tristate, 40 in.-lb., 90 sec. No Cover	144.25
MEP-4013	ACTUATR;TRISTATE;40IN-LB;W/POT	217.25
MEP-4021	ACTUATR;TRISTATW;40IN-LB;AX-SW	217.25
MEP-4022	ACTUTR;PROPRTL;40IN-LB;FB;SWTC	227.25
MEP-425100	62"LB;2-POS;SR;24V;PLNM;M121	319.21
MEP-425300	62"LB;2-POS;SR;120V;PLNM;M221	361.78
MEP-425500	62"LB;TRI-STATE;SR;PLNM;M131	361.78
MEP-425502	62"LB;TRISTATE;SR;SW;PLNM;M136	478.82
MEP-425503	62"LB;TRISTATE;SR;FB;PLNM;M132	478.82
MEP-425600	62"LB;0-10;SR;PLNM;M161	446.90
MEP-425602	62"LB;0-10;SR;SW;PLNM;M166	563.95
MEP-455100	142"LB;2-POS;SR;24V;121	510.74
MEP-455300	142"LB;2-POS;SR;120V;PLNM;C221	574.59
MEP-455500	142"LB;TRI-STATE;SR;PLNM;C131	574.59
MEP-455600	142"LB;0-10V;SR;PLNM;C161	659.71
MEP-455602	142"LB;0-10;SR;SW;PLNM;C166	776.76
MEP-4801	ACTUATOR;TRISTATE;80IN-LB	205.50
MEP-4802	ACTUATR;PROPRTL;80IN-LB;FB POT	290.50
MEP-4813	ACTUATR;TRISTATE;80IN-LB;W/POT	280.50
MEP-4821	ACTUATR;TRISTATW;80IN-LB;AX-SW	280.50
MEP-4822	ACTUTR;PROPRTL;80IN-LB;FB;SWTC	290.50
MEP-5061	3-WIRE;18DEG/MIN;50 IN-LB	136.63
MEP-5071	3 WIRE;60DEG/MIN;50 IN-LB	141.18
MEP-5223	ACT45DEG 3DEG/SEC(SNGL.PK)	210.69
MEP-5233	DAMP ACT90DEG 6DEG/SEC SNGL PK	210.69
MEP-5372	ELEC.ACT.w/FAIL-SAF; 2-10V w/FB	423.00
MEP-5373	ELEC.ACT.w/FAILSAFE;3WIREw/oFB	385.00
MEP-5374	ELEC.ACT.w/FAILSAFE;3WIREw/FB	410.00
MEP-7201	Actuator, 24 VAC/VDC, Tristate, 120 in.-lb., 75-90 sec.	285.00
MEP-7202	ACTUATOR, 24VAC/VDC, proportional, 120 in.- lb., 75-90 seconds	410.00
MEP-7203	Actuator, 24 VAC/VDC, Tristate, 120 in.-lb., 75-90 sec., with feedback pot. Same as MEP-7201 but with	
feedback pot.	335.00	
MEP-7251	Actuator, 24 VAC/VDC, Tristate, 120 in.-lb., 75-90 sec., Failsafe	435.00
MEP-7252	ACTUATOR, 24VAC/VDC, proportional, 120 in.- lb., 75-90 seconds, failsafe.	540.00
MEP-7253	Actuator, 24 VAC/VDC, Tristate, 120 in.-lb., 75-90 sec., failsafe with feedback pot. Same as MEP-7251 but	
with feedback pot.	485.00	
MEP-7501	Actuator, 24 VAC/VDC, Tristate, 180 in.- lb., 90 - 115 seconds.	290.00
MEP-7502	Actuator, 24 VAC/VDC, proportional, 180 in.- lb., 90 - 115 seconds.	425.00
MEP-7503	Actuator, 24 VAC/VDC, Tristate, 180 in.- lb., 90 - 115 seconds, feedback pot	340.00
MEP-7551	Actuator, 24 VAC/VDC, Tristate, 180 in.- lb., 90 - 115 seconds, failsafe	680.00
MEP-7552	Actuator, 24 VAC/VDC, proportional, 180 in.- lb., 90 - 115 seconds, failsafe	720.00
MEP-7553	Actuator, 24 VAC/VDC, Tristate, 180 in.- lb., 90 - 115 seconds, feedback pot, failsafe	705.00
MEP-7801	Actuator, 24 VAC/VDC, Tristate, 320 in.- lb., 90 - 115 seconds.	420.00
MEP-7802	Actuator, 24 VAC/VDC, proportional, 320 in.- lb., 90 - 115 seconds.	560.00
MEP-7803	Actuator, 24 VAC/VDC, Tristate, 320 in.- lb., 90 - 115 seconds,feedback pot.	470.00
MEP-7851	Actuator, 24 VAC/VDC, Tristate, 320 in.- lb., 90 - 115 seconds, failsafe.	1040.00
MEP-7852	Actuator, 24 VAC/VDC, proportional, 320 in.- lb., 90 - 115 seconds, failsafe	1120.00
MEP-7853	Actuator, 24 VAC/VDC, Tristate, 320 in.- lb., 90 - 115 seconds, feedback pot, failsafe.	1090.00

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RCC-1001	PNU.RELAY REVERSING;9#C/O	32.00
RCC-1006	PNU.RELAY LO SELECTOR	19.85
RCC-1008	PNU.RELAY HI-SELECTOR	18.92
RCC-1009	PNU.RELAY DIVERTING	59.36
RCC-1010	PNU.RELAY RATIO	77.01
RCC-1012	PNU.RELAY,REVERSING;8#C/O	36.05
RCC-1013	SIGNAL REPEATER RELAY	24.53
RCC-1101	PNU.RELAY,REVERSING;9#C/O;BRKT	35.65
RCC-1102	PNU.RELAY;AVERAGING;W/BRK	32.35
RCC-1106	PNU.RELAY;LO SELECTOR;W/BRK	23.49
RCC-1108	PNU.RELAY;HI SELECTOR;W/BRK	22.57
RCC-1109	PNU.RELAY;DIVERTING;W/BRK	63.01



Price List

Part Number	Description	List Price (Each)
RCC-1111	SIX INPUT HI/LO SELECTOR W/BRK	81.93
RCC-1112	PNU.RELAY;REVERSING;8#C/O;BRKT	39.69
RCC-1501	PNU.RELAY REVERSING 8# W/O BRK	97.89
RCC-1502	PNU.RELAY REVERSING 8# W/BRK	104.28
RCC-1503	PNU.RELAY REVERSING 9# W/O BRK	97.89
RCC-1504	PNU.RELAY REVERSING 9# W/BRK	104.28
RCC-1505	PNU.RELAY ADDITION W/O BRK	97.89
RCC-1506	PNU. RELAY ADDITION W/BRK	104.28
RCC-1507	PNU. RELAY SUBTRACTION W/O BRK	97.89
RCC-1508	PNU. RELAY SUBTRACTION W/BRK	104.28
RCC-1509	PNU. RELAY BOOSTER W/O BRK	97.89
RCC-1510	PNU. RELAY BOOSTER W/BRK	104.28
RCC-1511	PNU. RELAY RATIO W/O BRK	97.89
RCC-1512	PNU. RELAY RATIO W/BRK	104.28
RCC-1513	PNU. RELAY AVERAGING W/O BRK	97.89
RCC-1514	PNU. RELAY AVERAGING W/BRK	104.28
RCC-1515	PNU. RELAY BOOSTER W/O BRK	97.89
RCC-1516	PNU. RELAY BOOSTER W/BRK	104.28
REE-1004	ELEC.RELAY;CONST.VOLUME.CONT.	43.63
REE-1005	ELEC.RELAY;HTG/CLG CHANGEOVER	48.95
REE-1012	ELEC.RELAY;REMOTE LIMIT	68.23
REE-1013	ELEC.RELAY OFFSET:+/- 2 VDC	58.52
REE-1014	RELAY;HTG/CLG CHANGEOVER,MINI	51.07
REE-1016	ELEC.RELAY INTERFACE 4-20 MA	74.48
REE-1022	ELEC.RELAY; INTERFACE;2-10 VDC	74.48
REE-2002	RELAY FOR THE-1101 & THE-1102	73.42
REE-2004	RELAY; SOLID STATE; 25 AMP	170.25
REE-2005	VOLTAGE TO CURRENT RELAY	72.36
REE-2101	SOLID STATE, 0-CROSSING RELAY	123.43
REE-2102	SOLID STATE, 0-CROSSING RELAY	76.61
REE-2103	SOLID STATE RELAY;5AMP@240VAC	489.46
REE-2104	SOLID STATE RELAY;5AMP@240VAC	140.45
REE-3101	SPDT RELAY W/LED&TRK.MOUNT.HDW	59.59
REE-3102	SPDT RELAY W/LED MNTD.IN METAL	97.89
REE-3103	SPDT RELAY W/LED&TRACK MTG.HDW	217.07
REE-3104	SPDT RELAY W/LED MTD.IN METAL	327.73
REE-3105	DPDT RELAY W/LED&TRK.MTG.HDW	76.61
REE-3106	DPDT RELAY W/LED MTD.IN METAL	114.92
REE-3107	DPDT RELAY W/LED&TRKMTG.HDW	280.91
REE-3108	DPDT RELAY W/LED MTD.IN METAL	391.57
REE-3111	SPDT MULTI VOLTAGE RELAY	46.82
REE-3112	SPDT MULTI VOLTAGE RELAY;TRACK	46.82
REE-3113	4-SPDT MULTI VOLTAGE RELAYS	187.27
REE-3114	4-SPDT MULTIVOLTAGERELAYS;TRAC	187.27
REE-3115	8-SPDT MULTI VOLTAGE RELAYS	374.55
REE-3116	8SPDT MULTIVOLTAGERELAYS;TRACK	374.55
REE-3211	10A SPDT 10-30VAC-DC/120VAC	61.71
REE-3212	10A SPDT 24-30VAC-DC/120VAC	59.59
REE-3213	10A SDT 10-30VAC-DC/277VAC	85.12
REE-3214	10A SPST HOA 10-30VAC-DC/120VA	97.89
REE-3221	10A 2SPDT 10-30VAC-DC/120VAC	110.66
REE-3222	REE-3214 W/1SPDT	119.17
REE-3231	20A DPDT 24VAC-DC	127.69
REE-4001	ELEC.RELAY 3 STAGE REHEAT	85.12
REE-4002	ELEC.RELAY FAN BOX	85.12
REE-4006	ELEC.RELAY TIME PROPORTIONING	85.12
REE-4011	ELEC.RELAY;SCALING 0-20 VDC	85.12
REE-4015	ELEC.RELAY;SCALING (0-10V)	85.12
REE-4017	FAN/TIME PROPORTIONING RELAY	85.12
REE-4019	3-STAGE REFRIGERATION CONTROL	85.12
REE-4023	RA TIME PROPORTIONING RELAY	85.12
REE-4024	RA FAN/VEP RELAY	85.12
REE-4106	ELEC.RELAY TIME PROPORTIONING	85.12
REE-4123	RA TIME PROPORTIONING RELAY	85.12



Price List

Part Number	Description	List Price (Each)
REE-5001	RELAY;3 STAGE REHEAT;CTE-5100	85.12
REE-5002	FAN BOX RELAY 0-10V for CTE-5s	85.12
REE-5017	FAN/TIME PROPORTIONING RELAY	85.12
REE-5024	RA FAN/VEP RELAY	85.12
REE-5106	RELAY;TIME PROPOR;DA/NC;w/16V	85.12
REE-5123	RELAY;TIME PROPOR;RA/NO;w/16V	85.12
RSS-1007	SYS. PWRD. RELAY	85.12
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SAA-1030	SAMPLING TUBE 12 TO 30 IN	29.79
SAA-1060	SAMPLING TUBE 30 TO 60 IN	40.43
SAA-1120	SAMPLING TUBE 60 TO 120 INCHES	63.84
SAE-1001	CO2 SENSOR; SPACE	849.11
SAE-1002	CO2 SENSOR W/LCD; SPACE	934.03
SAE-1051	CO2 SENSOR; DUCT	905.65
SAE-1101	CO SENSOR; SPACE	707.58
SAE-1102	CO SENSOR W/RELAY; SPACE	792.49
SAE-1151	CO SENSOR; DUCT	764.20
SAE-1152	CO SENSOR W/RELAY; DUCT	849.11
SB-009	Brochure, MEP-7200/7500/7800 Actuators	2.64
SB-010	BROCHURE; BAC-7302 & BAC-7302C	2.64
SB-011	BROCHURE; BAC-7003 & BAC-7053	2.64
SB-021	BROCHURE :BALL VALVES	2.99
SB-023	SIGHT GLASS/RAM BROCHURE	2.64
SB-025	WinControl XL Plus BROCHURE	2.64
SB-031	BROCHURE; Pneumatics Overview	2.64
SB-033	PROPOSAL FOLDER	8.49
SB-037	BROCHURE; PRODUCT OVERVIEW	4.24
SB-039	BROCHURE; MEP-4000 SERIES ACT.	2.64
SB-040	BROCHURE; Going BACnet	2.64
SB-041	BROCHURE;STE-6000'sRmTempSensr	2.64
SB-042	BROCHURE;KMDigital Bldg Automa	2.99
SB-044	BROCHURE;BACnet Bldg Automatio	2.99
SB-046	Glossary;Green Bldgs Controls	24.99
SB-047	Brochure; Overview of TotalControl	2.64
SB-048	Brochure; Green Building	2.99
SB-049	Brochure; BAC-10000 Series BACnet Programmable Thermostats	2.99
SB-050	Brochure; BAC-A1616BC BACnet Building Controller	2.64
SB-051	Brochure; KMC Lighting	2.64
SB-052	Brochure; KMC Corporate Capabilities	3.99
SB-053	CD/DVD Corporate Capabilities	17.54
SB-055	BROCHURE; KIT-1000 Series Pneumatic Kits	2.99
SLE-1001	FIRST WATCH,SIGHTGLASS MONITOR	539.67
SLE-1101	FIRST WATCH SIGHT GLS MON. KIT	810.04
SP-001	SCREWDRIVER, WHITE	4.13
SP-071	CONDENSED CATALOG: Non Digital	20.60
SSE-1001	ELEC.SENSOR(4 IN.)	76.61
SSE-1002	ELEC.SENSOR(8 IN.)	85.12
SSE-1011	SHORT 3 WIRE SENSOR; CONFORMAL	93.64
SSE-1012	LONG 3 WIRE SENSOR; CONFORMAL	102.15
SSE-2001	ELEC. SENSOR (4 IN.TEMP.)	114.92
SSE-2002	ELEC.SENSOR(8 IN.TEMP.)	127.69
SSE-2011	SHORT 5 WIRE SENSOR; CONFORMAL	93.61
SSE-2012	LONG 5 WIRE SENSOR; CONFORMAL	100.60
SSS-1002	AIR FLOW SENSOR;1 PICK UP	25.54
SSS-1003	AIR FLOW SENSOR;2 PICK UP	28.73
SSS-1004	AIR FLOW SENSOR;3 PICK UP	34.05
SSS-1005	AIR FLOW SENSOR;4 PICK UP	39.37
STE-1002	ELEC.TEMP.SENSOR	29.50
STE-1004	ELEC. TEMP. SENSOR	29.50
STE-1011	TEMPERATURE SENSOR	31.00
STE-1401	10K;8" DUCT W/O HANDY BOX	36.18
STE-1402	10K;8" DUCT RIGID	42.56
STE-1402M	10K;8" DUCT RIGID;METAL	42.56



Price List

Part Number	Description	List Price (Each)
STE-1404	10K;12" DUCT RIGID	42.56
STE-1404M	10K;12" DUCT RIGID;METAL	42.56
STE-1405	10K;4" DUCT RIGID w/o HANDYBOX	36.18
STE-1411	10K;6' DUCT AVERAGING RIGID	170.25
STE-1411M	10K;6'DUCT AVERAGING RIGID;MET	170.25
STE-1412	10K;12' DUCT AVERAGING RIGID	195.79
STE-1412M	10K;12'DUCT AVERAGING RIGID;ME	195.79
STE-1413	10K;24' DUCT AVERAGING RIGID	340.50
STE-1413M	10K;24'DUCT AVERAGING RIGID;ME	340.50
STE-1414	10K;20' DUCT AVERAGING RIGID	276.65
STE-1415	10K;6' DUCT AVERAGING FLEX	180.89
STE-1416	10K;12' DUCT AVERAGING FLEX	191.53
STE-1417	10K;24' DUCT AVERAGING FLEX	297.93
STE-1417M	10K;24'DUCT AVERAGING FLEX;MET	297.93
STE-1421	10K;4" IMMERSION W/O WELL	44.69
STE-1421M	10K;4"IMMERSION W/O WELL;METAL	44.69
STE-1422	10K;6" IMMERSION W/O WELL	44.69
STE-1422M	10K;6"IMMERSION W/O WELL;METAL	44.69
STE-1430	10K;S.S. PLATE ROOM SENSOR	36.18
STE-1451	10K;OUTDOOR AIR	59.59
STE-1454	10K;STRAP ON SENSOR	46.82
STE-5011-10	ROOM SENSOR; 10K OHM	51.07
STE-5012-10	ROOM SENSOR W/DEG.F ADJUSTMENT	72.36
STE-5012-11	ROOM SENSOR W/DEG.C ADJUSTMENT	72.36
STE-5013-10	ROOM SENSOR W/N.O. & L.E.D.	74.48
STE-5014-10	ROOM SENSOR W/N.O.;LED;F ADJ.	85.12
STE-5014-11	ROOM SENSOR W/N.O.;LED;C ADJ.	85.12
STE-5015-10	ROOM SENSOR W/N.O.;3LED;F ADJ.	89.38
STE-5015-11	ROOM SENSOR W/N.O.;3LED;C ADJ.	89.38
STE-5016-10	ROOM SENSOR;W/INC-DEC SWITCHES	119.17
STE-5017-10	ROOM SENSOR;INC-DEC;N.O.;1LED	136.20
STE-5021-10	ROOM SENSOR W/N.O. SWITCH	80.87
STE-5022-10	ROOM SENSOR W/N.O.;DEG F ADJ.	85.12
STE-5022-11	ROOM SENSOR W/N.O.;DEG C ADJ.	85.12
STE-5111-10	ROOM SENSOR; 10K OHM	51.07
STE-5112-10	ROOM SENSOR W/DEG.F ADJUSTMENT	76.61
STE-5112-11	ROOM SENSOR W/DEG.C ADJUSTMENT	76.61
STE-5113-10	ROOM SENSOR W/N.O. & L.E.D.	80.87
STE-5114-10	ROOM SENSOR W/N.O.;LED;F ADJ.	85.12
STE-5114-11	ROOM SENSOR W/N.O.;LED;C ADJ.	85.12
STE-5116-10	ROOM SENSOR;W/INC-DEC SWITCHES	119.17
STE-5121-10	ROOM SENSOR W/N.O. SWITCH	80.87
STE-5122-10	ROOM SENSOR W/N.O.;DEG F ADJ.	85.12
STE-5122-11	ROOM SENSOR W/N.O.;DEG C ADJ.	724.56
STE-5212-10	ELEC. TEMP. SENSOR; DEG F	119.17
STE-5224-10	ELEC SENSOR W/L.O.;RJ-11;DEG F	178.76
STE-5312-10	ELEC. TEMP. SENSOR; DEG F	136.20
STE-5324-10	ELEC SENSOR W/L.O.;RJ-11;DEG F	178.76
STE-6010-10	ROOM SENSOR;10K W/DATA PORT	46.82
STE-6011-10	ROOM SENSOR; 10K OHM	38.31
STE-6011W10	ROOM SENSOR; 10K OHM	38.31
STE-6012-10	ROOM SENSOR; LCD DISPLAY	106.40
STE-6013-10	ROOM SENSOR W/N.O. & LED	63.84
STE-6014-10	ROOM SENSOR;W/SETPOINT&PORT F	55.33
STE-6015-10	ROOM SENSOR W/N.O.,LED & DPORT	76.61
STE-6016-10	ROOM SENSOR;LCD DISPLAY & PORT	123.43
STE-6017-10	ROOM SENSOR;SETPT,PORT,BUTN F	63.84
STE-6018-10	ROOM SENSOR;SET,PORT,BTN,LED F	72.36
STE-6019-10	ROOM SENSOR;SETPT,TBLOCK,BTN F	63.84
STE-6019W10	ROOM SENSOR;SETPT,TBLOCK,BTN F	63.84
STE-6020-10	ROOM SENSOR;SETPT,TB,BTN,LED F	68.10
STE-6020W10	ROOM SENSOR;SETPT,TB,BTN,LED F	68.10

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Price List

Part Number	Description	List Price (Each)
THE-1002	HUMIDITY TRANS W/TEMP SENSING	361.78
THE-1102	MINI HUMID TRANS; W/THERMISTOR	246.86
THE-1105	HUMIDITY XMITTER W/THERMISTOR	255.37
TPC-1002-10	DIFF.PR.TRANSMITTER(0-50 PSI)	297.93
TPC-1003-10	DIFF.PR.TRANSMITTER(0-100 PSI)	340.50
TPE-1001	P-E/I TRANSMITTER	212.81
TPE-1464-1	PRESS XDUCER 0 THRU 100 PSIG	1170.45
TPE-1464-2	PRESS XDUCER 0 THRU 200 PSIG	1170.45
TPE-1464-3	PRESS XDUCER 0 THRU 500 PSIG	1170.45
TPE-1474-21	Press Xducer 0 to 1"/0-2"	361.78
TPE-1474-22	Press Xducer 0 to 3"/0 to 6"	361.78
TPE-1474-23	Press Xducer 0 to 5"/0 to 10"	361.78
TPE-1474-24	Press Xducer 0to500/0to1000 Pa	361.78
TPE-1476-21	Press Xducer 0 to 1"/0 to 2"	425.62
TPE-1476-22	Press Xducer 0 to 3"/0 to 6"	425.62
TPE-1476-23	Press Xducer 0 to 5"/0 to 10"	425.62
TPE-1476-24	Press Xducer 0to500/0to1000 Pa	425.62
TPE-1483-1	PressXducer 0-50 PSID	1489.67
TPE-1483-2	Press Xducer 0-100 PSID	1489.67
TPE-1483-3	Press Xducer 0-500 PSID	1489.67
TSC-2001	STATIC PRESS.TRANS;0 TO .5"	93.68
TSC-2002	STATIC PRESS.TRANS.0 TO 1"	93.68
TSC-2003	STATIC PRESS.TRANS;0 TO 2"	93.68
TSC-2004	STATIC PRESS.TRANS;0 TO 4"	93.68
TSC-2005	STATIC PRES.TRANS.,-.5 TO +.5	93.68
TSP-5002	AIR FLOW TRANSDUCER/ACTUATOR S	425.62
TSP-5003	AIR FLOW TRANSDUCER/ACTUATOR S	383.06
TSP-5022	AIR FLOW TRANSDUCER/ACTUATOR F	425.62
TSP-5023	AIR FLOW TRANSDUCER/ACTUATOR F	383.06
TSP-6001	ACTUATOR W/FLOW SENSOR, SLOW	404.34
TSP-6051	ACTUATOR W/FLOW SENSOR, FAST	404.34
TTE-1001	ELEC.TEMP.TRANS;WALL MTG.	85.12
TTE-2001	ELECTRONIC DUCT TRANSMITTER	68.10
TTE-5001	TEMPERATURE TRANSMITTER,WHITE	51.07
TTE-5011	TEMPERATURE TRANSMITTER,BEIGE	51.07

V

VCB-4102BBFE	Valve; 1/2", 2-Way, N.O., 0.38 Cv, 8-13 PSI, MCP-3631-5000	270.00
VCB-4102BBFF	Valve; 1/2", 2-Way, N.O., 0.38 Cv, 5-10 PSI, MCP-3631-3000	270.00
VCB-4102DBFE	Valve; 1/2", 2-Way, N.O., 0.68 Cv, 8-13 PSI, MCP-3631-5000	270.00
VCB-4102DBFF	Valve; 1/2", 2-Way, N.O., 0.68 Cv, 5-10 PSI, MCP-3631-3000	270.00
VCB-4102FBFE	Valve; 1/2", 2-Way, N.O., 1.3 Cv, 8-13 PSI, MCP-3631-5000	270.00
VCB-4102FBFF	Valve; 1/2", 2-Way, N.O., 1.3 Cv, 5-10 PSI, MCP-3631-3000	270.00
VCB-4102HBFE	Valve; 1/2", 2-Way, N.O., 2.6 Cv, 8-13 PSI, MCP-3631-5000	270.00
VCB-4102HBFF	Valve; 1/2", 2-Way, N.O., 2.6 Cv, 5-10 PSI, MCP-3631-3000	270.00
VCB-4102KBFE	Valve; 1/2", 2-Way, N.O., 4.7 Cv, 8-13 PSI, MCP-3631-5000	270.00
VCB-4102KBFF	Valve; 1/2", 2-Way, N.O., 4.7 Cv, 5-10 PSI, MCP-3631-3000	270.00
VCB-4102MBFE	Valve; 1/2", 2-Way, N.O., 11.7 Cv, 8-13 PSI, MCP-3631-5000	270.00
VCB-4102MBFF	Valve; 1/2", 2-Way, N.O., 11.7 Cv, 5-10 PSI, MCP-3631-3000	270.00
VCB-4103GBFE	Valve; 3/4", 2-Way, N.O., 2.4 Cv, 8-13 PSI, MCP-3631-5000	315.00
VCB-4103GBFF	Valve; 3/4", 2-Way, N.O., 2.4 Cv, 5-10 PSI, MCP-3631-3000	315.00
VCB-4103KBFE	Valve; 3/4", 2-Way, N.O., 4.3 Cv, 8-13 PSI, MCP-3631-5000	315.00
VCB-4103KBFF	Valve; 3/4", 2-Way, N.O., 4.3 Cv, 5-10 PSI, MCP-3631-3000	315.00
VCB-4103LBFE	Valve; 3/4", 2-Way, N.O., 10.1 Cv, 8-13 PSI, MCP-3631-5000	315.00
VCB-4103LBFF	Valve; 3/4", 2-Way, N.O., 10.1 Cv, 5-10 PSI, MCP-3631-3000	315.00
VCB-4103NBFE	Valve; 3/4", 2-Way, N.O., 14.7 Cv, 8-13 PSI, MCP-3631-5000	315.00
VCB-4103NBFF	Valve; 3/4", 2-Way, N.O., 14.7 Cv, 5-10 PSI, MCP-3631-3000	315.00
VCB-4104JBFE	Valve; 1", 2-Way, N.O., 9 Cv, 8-13 PSI, MCP-3631-5000	370.00
VCB-4104JBFF	Valve; 1", 2-Way, N.O., 9 Cv, 5-10 PSI, MCP-3631-3000	370.00
VCB-4104MBFE	Valve; 1", 2-Way, N.O., 15.3 Cv, 8-13 PSI, MCP-3631-5000	370.00
VCB-4104MBFF	Valve; 1", 2-Way, N.O., 15.3 Cv, 5-10 PSI, MCP-3631-3000	370.00
VCB-4104QBFE	Valve; 1", 2-Way, N.O., 28.4 Cv, 8-13 PSI, MCP-3631-5000	370.00
VCB-4104QBFF	Valve; 1", 2-Way, N.O., 28.4 Cv, 5-10 PSI, MCP-3631-3000	370.00
VCB-4105FBFE	Valve; 1-1/4", 2-Way, N.O., 14.9 Cv, 8-13 PSI, MCP-3631-5000	460.00



Price List

Part Number	Description	List Price (Each)
VCB-4105FBFF	Valve; 1-1/4", 2-Way, N.O., 14.9 Cv, 5-10 PSI, MCP-3631-3000	460.00
VCB-4105KBFE	Valve; 1-1/4", 2-Way, N.O., 36.5 Cv, 8-13 PSI, MCP-3631-5000	460.00
VCB-4105KBFF	Valve; 1-1/4", 2-Way, N.O., 36.5 Cv, 5-10 PSI, MCP-3631-3000	460.00
VCB-4105LBFE	Valve; 1-1/4", 2-Way, N.O., 41.1 Cv, 8-13 PSI, MCP-3631-5000	460.00
VCB-4105LBFF	Valve; 1-1/4", 2-Way, N.O., 41.1 Cv, 5-10 PSI, MCP-3631-3000	460.00
VCB-4106DBFE	Valve; 1-1/2", 2-Way, N.O., 22.8 Cv, 8-13 PSI, MCP-3631-5000	590.00
VCB-4106DBFF	Valve; 1-1/2", 2-Way, N.O., 22.8 Cv, 5-10 PSI, MCP-3631-3000	590.00
VCB-4106GBFE	Valve; 1-1/2", 2-Way, N.O., 41.3 Cv, 8-13 PSI, MCP-3631-5000	590.00
VCB-4106GBFF	Valve; 1-1/2", 2-Way, N.O., 41.3 Cv, 5-10 PSI, MCP-3631-3000	590.00
VCB-4106JBFE	Valve; 1-1/2", 2-Way, N.O., 73.9 Cv, 8-13 PSI, MCP-3631-5000	590.00
VCB-4106JBFF	Valve; 1-1/2", 2-Way, N.O., 73.9 Cv, 5-10 PSI, MCP-3631-3000	590.00
VCB-4108DBFE	Valve; 2", 2-Way, N.O., 41.7 Cv, 8-13 PSI, MCP-3631-5000	845.00
VCB-4108DBFF	Valve; 2", 2-Way, N.O., 41.7 Cv, 5-10 PSI, MCP-3631-3000	845.00
VCB-4108GBFE	Valve; 2", 2-Way, N.O., 71.1 Cv, 8-13 PSI, MCP-3631-5000	845.00
VCB-4108GBFF	Valve; 2", 2-Way, N.O., 71.1 Cv, 5-10 PSI, MCP-3631-3000	845.00
VCB-4108MBFE	Valve; 2", 2-Way, N.O., 108 Cv, 8-13 PSI, MCP-3631-5000	845.00
VCB-4108MBFF	Valve; 2", 2-Way, N.O., 108 Cv, 5-10 PSI, MCP-3631-3000	845.00
VCB-4110CBFE	Valve; 2-1/2", 2-Way, N.O., 55 Cv, 8-13 PSI, MCP-3631-5000	1140.00
VCB-4110CBFF	Valve; 2-1/2", 2-Way, N.O., 55 Cv, 5-10 PSI, MCP-3631-3000	1140.00
VCB-4110DBFE	Valve; 2-1/2", 2-Way, N.O., 72 Cv, 8-13 PSI, MCP-3631-5000	1140.00
VCB-4110DBFF	Valve; 2-1/2", 2-Way, N.O., 72 Cv, 5-10 PSI, MCP-3631-3000	1140.00
VCB-4110GBFE	Valve; 2-1/2", 2-Way, N.O., 101 Cv, 8-13 PSI, MCP-3631-5000	1140.00
VCB-4110GBFF	Valve; 2-1/2", 2-Way, N.O., 101 Cv, 5-10 PSI, MCP-3631-3000	1140.00
VCB-4112CBFE	Valve; 3", 2-Way, N.O., 82 Cv, 8-13 PSI, MCP-3631-5000	1200.00
VCB-4112CBFF	Valve; 3", 2-Way, N.O., 82 Cv, 5-10 PSI, MCP-3631-3000	1200.00
VCB-4112DBFE	Valve; 3", 2-Way, N.O., 124 Cv, 8-13 PSI, MCP-3631-5000	1200.00
VCB-4112DBFF	Valve; 3", 2-Way, N.O., 124 Cv, 5-10 PSI, MCP-3631-3000	1200.00
VCB-4202BBFE	Valve; 1/2", 2-Way, N.C., 0.38 Cv, 8-13 PSI, MCP-3631-5000	270.00
VCB-4202BBFF	Valve; 1/2", 2-Way, N.C., 0.38 Cv, 5-10 PSI, MCP-3631-3000	270.00
VCB-4202DBFE	Valve; 1/2", 2-Way, N.C., 0.68 Cv, 8-13 PSI, MCP-3631-5000	270.00
VCB-4202DBFF	Valve; 1/2", 2-Way, N.C., 0.68 Cv, 5-10 PSI, MCP-3631-3000	270.00
VCB-4202FBFE	Valve; 1/2", 2-Way, N.C., 1.3 Cv, 8-13 PSI, MCP-3631-5000	270.00
VCB-4202FBFF	Valve; 1/2", 2-Way, N.C., 1.3 Cv, 5-10 PSI, MCP-3631-3000	270.00
VCB-4202HBFE	Valve; 1/2", 2-Way, N.C., 2.6 Cv, 8-13 PSI, MCP-3631-5000	270.00
VCB-4202HBFF	Valve; 1/2", 2-Way, N.C., 2.6 Cv, 5-10 PSI, MCP-3631-3000	270.00
VCB-4202KBFE	Valve; 1/2", 2-Way, N.C., 4.7 Cv, 8-13 PSI, MCP-3631-5000	270.00
VCB-4202KBFF	Valve; 1/2", 2-Way, N.C., 4.7 Cv, 5-10 PSI, MCP-3631-3000	270.00
VCB-4202MBFE	Valve; 1/2", 2-Way, N.C., 11.7 Cv, 8-13 PSI, MCP-3631-5000	270.00
VCB-4202MBFF	Valve; 1/2", 2-Way, N.C., 11.7 Cv, 5-10 PSI, MCP-3631-3000	270.00
VCB-4203GBFE	Valve; 3/4", 2-Way, N.C., 2.4 Cv, 8-13 PSI, MCP-3631-5000	315.00
VCB-4203GBFF	Valve; 3/4", 2-Way, N.C., 2.4 Cv, 5-10 PSI, MCP-3631-3000	315.00
VCB-4203KBFE	Valve; 3/4", 2-Way, N.C., 4.3 Cv, 8-13 PSI, MCP-3631-5000	315.00
VCB-4203KBFF	Valve; 3/4", 2-Way, N.C., 4.3 Cv, 5-10 PSI, MCP-3631-3000	315.00
VCB-4203LBFE	Valve; 3/4", 2-Way, N.C., 10.1 Cv, 8-13 PSI, MCP-3631-5000	315.00
VCB-4203LBFF	Valve; 3/4", 2-Way, N.C., 10.1 Cv, 5-10 PSI, MCP-3631-3000	315.00
VCB-4203NBFE	Valve; 3/4", 2-Way, N.C., 14.7 Cv, 8-13 PSI, MCP-3631-5000	315.00
VCB-4203NBFF	Valve; 3/4", 2-Way, N.C., 14.7 Cv, 5-10 PSI, MCP-3631-3000	315.00
VCB-4204JBFE	Valve; 1", 2-Way, N.C., 9 Cv, 8-13 PSI, MCP-3631-5000	370.00
VCB-4204JBFF	Valve; 1", 2-Way, N.C., 9 Cv, 5-10 PSI, MCP-3631-3000	370.00
VCB-4204MBFE	Valve; 1", 2-Way, N.C., 15.3 Cv, 8-13 PSI, MCP-3631-5000	370.00
VCB-4204MBFF	Valve; 1", 2-Way, N.C., 15.3 Cv, 5-10 PSI, MCP-3631-3000	370.00
VCB-4204QBFE	Valve; 1", 2-Way, N.C., 28.4 Cv, 8-13 PSI, MCP-3631-5000	370.00
VCB-4204QBFF	Valve; 1", 2-Way, N.C., 28.4 Cv, 5-10 PSI, MCP-3631-3000	370.00
VCB-4205FBFE	Valve; 1-1/4", 2-Way, N.C., 14.9 Cv, 8-13 PSI, MCP-3631-5000	460.00
VCB-4205FBFF	Valve; 1-1/4", 2-Way, N.C., 14.9 Cv, 5-10 PSI, MCP-3631-3000	460.00
VCB-4205KBFE	Valve; 1-1/4", 2-Way, N.C., 36.5 Cv, 8-13 PSI, MCP-3631-5000	460.00
VCB-4205KBFF	Valve; 1-1/4", 2-Way, N.C., 36.5 Cv, 5-10 PSI, MCP-3631-3000	460.00
VCB-4205LBFE	Valve; 1-1/4", 2-Way, N.C., 41.1 Cv, 8-13 PSI, MCP-3631-5000	460.00
VCB-4205LBFF	Valve; 1-1/4", 2-Way, N.C., 41.1 Cv, 5-10 PSI, MCP-3631-3000	460.00
VCB-4206DBFE	Valve; 1-1/2", 2-Way, N.C., 22.8 Cv, 8-13 PSI, MCP-3631-5000	590.00
VCB-4206DBFF	Valve; 1-1/2", 2-Way, N.C., 22.8 Cv, 5-10 PSI, MCP-3631-3000	590.00
VCB-4206GBFE	Valve; 1-1/2", 2-Way, N.C., 41.3 Cv, 8-13 PSI, MCP-3631-5000	590.00
VCB-4206GBFF	Valve; 1-1/2", 2-Way, N.C., 41.3 Cv, 5-10 PSI, MCP-3631-3000	590.00
VCB-4206JBFE	Valve; 1-1/2", 2-Way, N.C., 73.9 Cv, 8-13 PSI, MCP-3631-5000	590.00



Price List

Part Number	Description	List Price (Each)
VCB-4206JBFF	Valve; 1-1/2", 2-Way, N.C., 73.9 Cv, 5-10 PSI, MCP-3631-3000	590.00
VCB-4208DBFE	Valve; 2", 2-Way, N.C., 41.7 Cv, 8-13 PSI, MCP-3631-5000	845.00
VCB-4208DBFF	Valve; 2", 2-Way, N.C., 41.7 Cv, 5-10 PSI, MCP-3631-3000	845.00
VCB-4208GBFE	Valve; 2", 2-Way, N.C., 71.1 Cv, 8-13 PSI, MCP-3631-5000	845.00
VCB-4208GBFF	Valve; 2", 2-Way, N.C., 71.1 Cv, 5-10 PSI, MCP-3631-3000	845.00
VCB-4208MBFE	Valve; 2", 2-Way, N.C., 108 Cv, 8-13 PSI, MCP-3631-5000	845.00
VCB-4208MBFF	Valve; 2", 2-Way, N.C., 108 Cv, 5-10 PSI, MCP-3631-3000	845.00
VCB-4210CBFE	Valve; 2-1/2", 2-Way, N.C., 55 Cv, 8-13 PSI, MCP-3631-5000	1140.00
VCB-4210CBFF	Valve; 2-1/2", 2-Way, N.C., 55 Cv, 5-10 PSI, MCP-3631-3000	1140.00
VCB-4210DBFE	Valve; 2-1/2", 2-Way, N.C., 72 Cv, 8-13 PSI, MCP-3631-5000	1140.00
VCB-4210DBFF	Valve; 2-1/2", 2-Way, N.C., 72 Cv, 5-10 PSI, MCP-3631-3000	1140.00
VCB-4210GBFE	Valve; 2-1/2", 2-Way, N.C., 101 Cv, 8-13 PSI, MCP-3631-5000	1140.00
VCB-4210GBFF	Valve; 2-1/2", 2-Way, N.C., 101 Cv, 5-10 PSI, MCP-3631-3000	1140.00
VCB-4212CBFE	Valve; 3", 2-Way, N.C., 82 Cv, 8-13 PSI, MCP-3631-5000	1200.00
VCB-4212CBFF	Valve; 3", 2-Way, N.C., 82 Cv, 5-10 PSI, MCP-3631-3000	1200.00
VCB-4212DBFE	Valve; 3", 2-Way, N.C., 124 Cv, 8-13 PSI, MCP-3631-5000	1200.00
VCB-4212DBFF	Valve; 3", 2-Way, N.C., 124 Cv, 5-10 PSI, MCP-3631-3000	1200.00
VCB-4602CBFE	Valve; 1/2", 3-Way, 0.6 Cv, 8-13 PSI, MCP-3631-5000	420.00
VCB-4602CBFF	Valve; 1/2", 3-Way, 0.6 Cv, 5-10 PSI, MCP-3631-3000	420.00
VCB-4602EBFE	Valve; 1/2", 3-Way, 1 Cv, 8-13 PSI, MCP-3631-5000	420.00
VCB-4602EBFF	Valve; 1/2", 3-Way, 1 Cv, 5-10 PSI, MCP-3631-3000	420.00
VCB-4602GBFE	Valve; 1/2", 3-Way, 2.4 Cv, 8-13 PSI, MCP-3631-5000	420.00
VCB-4602GBFF	Valve; 1/2", 3-Way, 2.4 Cv, 5-10 PSI, MCP-3631-3000	420.00
VCB-4602JBFE	Valve; 1/2", 3-Way, 4.3 Cv, 8-13 PSI, MCP-3631-5000	420.00
VCB-4602JBFF	Valve; 1/2", 3-Way, 4.3 Cv, 5-10 PSI, MCP-3631-3000	420.00
VCB-4602LBFE	Valve; 1/2", 3-Way, 8 Cv, 8-13 PSI, MCP-3631-5000	420.00
VCB-4602LBFF	Valve; 1/2", 3-Way, 8 Cv, 5-10 PSI, MCP-3631-3000	420.00
VCB-4603GBFE	Valve; 3/4", 3-Way, 2.4 Cv, 8-13 PSI, MCP-3631-5000	435.00
VCB-4603GBFF	Valve; 3/4", 3-Way, 2.4 Cv, 5-10 PSI, MCP-3631-3000	435.00
VCB-4603JBFE	Valve; 3/4", 3-Way, 3.8 Cv, 8-13 PSI, MCP-3631-5000	435.00
VCB-4603JBFF	Valve; 3/4", 3-Way, 3.8 Cv, 5-10 PSI, MCP-3631-3000	435.00
VCB-4603MBFE	Valve; 3/4", 3-Way, 11 Cv, 8-13 PSI, MCP-3631-5000	435.00
VCB-4603MBFF	Valve; 3/4", 3-Way, 11 Cv, 5-10 PSI, MCP-3631-3000	435.00
VCB-4604HBFE	Valve; 1", 3-Way, 8.6 Cv, 8-13 PSI, MCP-3631-5000	566.00
VCB-4604HBFF	Valve; 1", 3-Way, 8.6 Cv, 5-10 PSI, MCP-3631-3000	566.00
VCB-4604NBFE	Valve; 1", 3-Way, 22.3 Cv, 8-13 PSI, MCP-3631-5000	566.00
VCB-4604NBFF	Valve; 1", 3-Way, 22.3 Cv, 5-10 PSI, MCP-3631-3000	566.00
VCB-4605EBFE	Valve; 1-1/4", 3-Way, 12.7 Cv, 8-13 PSI, MCP-3631-5000	615.00
VCB-4605EBFF	Valve; 1-1/4", 3-Way, 12.7 Cv, 5-10 PSI, MCP-3631-3000	615.00
VCB-4605JBFE	Valve; 1-1/4", 3-Way, 34.1 Cv, 8-13 PSI, MCP-3631-5000	615.00
VCB-4605JBFF	Valve; 1-1/4", 3-Way, 34.1 Cv, 5-10 PSI, MCP-3631-3000	615.00
VCB-4606EBFE	Valve; 1-1/2", 3-Way, 23.5 Cv, 8-13 PSI, MCP-3631-5000	888.00
VCB-4606EBFF	Valve; 1-1/2", 3-Way, 23.5 Cv, 5-10 PSI, MCP-3631-3000	888.00
VCB-4606HBFE	Valve; 1-1/2", 3-Way, 61.1 Cv, 8-13 PSI, MCP-3631-5000	888.00
VCB-4606HBFF	Valve; 1-1/2", 3-Way, 61.1 Cv, 5-10 PSI, MCP-3631-3000	888.00
VCB-4608BBFE	Valve; 2", 3-Way, 38.2 Cv, 8-13 PSI, MCP-3631-5000	1165.00
VCB-4608BBFF	Valve; 2", 3-Way, 38.2 Cv, 5-10 PSI, MCP-3631-3000	1165.00
VCB-4608NBFE	Valve; 2", 3-Way, 108.5 Cv, 8-13 PSI, MCP-3631-5000	1165.00
VCB-4608NBFF	Valve; 2", 3-Way, 108.5 Cv, 5-10 PSI, MCP-3631-3000	1165.00
VCB-4610EBFE	Valve; 2-1/2", 3-Way, 74.1 Cv, 8-13 PSI, MCP-3631-5000	1220.00
VCB-4610EBFF	Valve; 2-1/2", 3-Way, 74.1 Cv, 5-10 PSI, MCP-3631-3000	1220.00
VCB-4610FBFE	Valve; 2-1/2", 3-Way, 99.5 Cv, 8-13 PSI, MCP-3631-5000	1220.00
VCB-4610FBFF	Valve; 2-1/2", 3-Way, 99.5 Cv, 5-10 PSI, MCP-3631-3000	1220.00
VCP-11140141	VALVE;1/2";NO;2W;1.6 CV;3-8#	101.08
VCP-11140142	VALVE;1/2";NO;2W;1.6 CV;8-13#	101.08
VCP-11150141	NO ST-THRU;1/2" 2.0 3-8#	101.08
VCP-11150142	NO ST-THRU;1/2" 2.0 8-13#	101.08
VCP-11160141	NO ST-THRU;1/2" 2.6 3-8#	101.08
VCP-11160142	NO ST-THRU;1/2" 2.6 8-13#	101.08
VCP-11170141	NO ST-THRU;3/4" 2.9 3-8#	117.05
VCP-11170142	NO ST-THRU;3/4" 2.9 8-13#	117.05
VCP-11180141	NO ST-THRU;3/4" 4.7 3-8#	117.05
VCP-11180142	NO ST-THRU;3/4" 4.7 8-13#	117.05
VCP-11220141	VALVE;1";NO;2W;5.0 CV;3-8#	160.67



Price List

Part Number	Description	List Price (Each)
VCP-11220142	VALVE;1";NO;2W;5.0 CV;8-13#	160.67
VCP-21140141	1/2";NO;2W ANGLE;1.6 CV;3-8#	101.08
VCP-21140142	1/2";NO;2W ANGLE;1.6 CV;8-13#	101.08
VCP-21150141	NO ANGLE BODY;1/2" 2.0 3-8#	101.08
VCP-21150142	NO ANGLE BODY;1/2" 2.0 8-13#	101.08
VCP-21160141	NO ANGLE BODY;1/2" 2.6 3-8#	101.08
VCP-21160142	NO ANGLE BODY;1/2" 2.6 8-13#	101.08
VCP-21170141	NO ANGLE BODY;3/4" 2.9 3-8#	117.05
VCP-21170142	NO ANGLE BODY;3/4" 2.9 8-13#	117.05
VCP-34200141	3-WAY;3/4IN.;CV 4.9, 3-8#	323.47
VCP-34210142	3-WAY;1 IN.;CV 8.5;8-13#	393.70
VCP-41310240	1/2";NO;2-WAY;4.6CV SIL	737.78
VCP-41310241	1/2";NO;2-WAY;4.6CV;3-8#;SILIC	604.78
VCP-41310242	1/2";NO;2-W;4.6CV;8-13#SIL	604.78
VCP-41310243	1/2";NO;2-WAY;4.6CV;3-13#SIL	604.78
VCP-41310250	1/2";NO;2-WAY;4.6CV	919.47
VCP-41310251	1/2";NO;2-WAY;4.6CV;3-8#	576.17
VCP-41310252	1/2";NO;2-WAY;4.6CV;8-13#	576.17
VCP-41310253	1/2";NO;2-WAY;4.6CV;3-13#	576.17
VCP-41310260	1/2";NO;2-WAY;4.6CV	1321.42
VCP-41310261	1/2";NO;2-WAY;4.6CV;3-8#	820.77
VCP-41310262	1/2";NO;2-WAY;4.6CV;8-13#	820.77
VCP-41310263	1/2";NO;2-WAY;4.6CV;3-13#	820.77
VCP-41320240	3/4";NO;2-WAY;6.9CV SIL	948.08
VCP-41320241	3/4";NO;2-WAY;6.9CV;3-8#SIL	604.78
VCP-41320242	3/4";NO;2-WAY;6.9CV;8-13#SIL	604.78
VCP-41320243	3/4";NO;2-WAY;6.9CV;3-13#SIL	604.78
VCP-41320250	3/4";NO;2-WAY;6.9CV	919.47
VCP-41320251	3/4";NO;2-WAY;6.9CV;3-8#	576.17
VCP-41320252	3/4";NO;2-WAY;6.9CV;8-13#	576.17
VCP-41320253	3/4";NO;2-WAY;6.9CV;3-13#	576.17
VCP-41320260	3/4";NO;2-WAY;6.9CV	1321.42
VCP-41320261	3/4";NO;2-WAY;6.9CV;3-8#	820.77
VCP-41320262	3/4";NO;2-WAY;6.9CV;8-13#	820.77
VCP-41320263	3/4";NO;2-WAY;6.9CV;3-13#	820.77
VCP-41330240	1";NO;2-WAY;11.6CV SIL	980.84
VCP-41330241	1";NO;2-WAY;11.6CV;3-8# SIL	637.54
VCP-41330242	1";NO;2-WAY;11.6CV;8-13# SIL	637.54
VCP-41330243	1";NO;2-WAY;11.6CV;3-13#SIL	637.54
VCP-41330250	1";NO;2-WAY;11.6CV	952.23
VCP-41330251	1";NO;2-WAY;11.6CV;3-8#	608.93
VCP-41330252	1";NO;2-WAY;11.6CV;8-13#	608.93
VCP-41330253	1";NO;2-WAY;11.6CV;3-13#	608.93
VCP-41330260	1";NO;2-WAY;11.6CV	1354.18
VCP-41330261	1";NO;2-WAY;11.6CV;3-8#	853.53
VCP-41330262	1";NO;2-WAY;11.6CV;8-13#	853.53
VCP-41330263	1";NO;2-WAY;11.6CV;3-13#	853.53
VCP-41340240	1 1/4";NO;2-W;18.5CV SIL	1102.64
VCP-41340241	1 1/4";NO;2-W;18.5CV;3-8# SIL	759.34
VCP-41340242	1 1/4";NO;2-W;18.5CV;8-13# SIL	759.34
VCP-41340243	1 1/4";NO;2-W;18.5CV;3-13# SIL	759.34
VCP-41340250	1 1/4";NO;2-WAY;18.5CV	1074.03
VCP-41340251	1 1/4";NO;2-WAY;18.5CV;3-8#	730.73
VCP-41340252	1 1/4";NO;2-WAY;18.5CV;8-13#	730.73
VCP-41340253	1 1/4";NO;2-WAY;18.5CV;3-13#	730.73
VCP-41340260	Valve; 1 1/4";NO;2-WAY;18.5CV	1475.97
VCP-41340261	1 1/4";NO;2-WAY;18.5CV;3-8#	975.33
VCP-41340262	1 1/4";NO;2-WAY;18.5CV;8-13#	975.33
VCP-41340263	1 1/4";NO;2-WAY;18.5CV;3-13#	975.33
VCP-41350240	1 1/2";NO;2-W;29.0CV SIL	1172.23
VCP-41350241	1 1/2";NO;2-W;29.0CV;3-8# SIL	828.93
VCP-41350242	1 1/2";NO;2-W;29.0CV;8-13# SIL	828.93
VCP-41350243	1 1/2";NO;2-W;29.0CV;3-13# SIL	828.93
VCP-41350250	1 1/2";NO;2-WAY;29.0CV	1143.62



Price List

Part Number	Description	List Price (Each)
VCP-41350251	1 1/2";NO;2-WAY;29.0CV;3-8#	800.32
VCP-41350252	1 1/2";NO;2-WAY;29.0CV;8-13#	800.32
VCP-41350253	1 1/2";NO;2-WAY;29.0CV;3-13#	800.32
VCP-41350260	1 1/2";NO;2-WAY;29.0CV	1545.57
VCP-41350261	1 1/2";NO;2-WAY;29.0CV;3-8#	1044.92
VCP-41350262	1 1/2";NO;2-WAY;29.0CV;8-13#	1044.92
VCP-41350263	1 1/2";NO;2-WAY;29.0CV;3-13#	1044.92
VCP-41360240	2";NO;2-WAY;46.4CV SIL	1300.60
VCP-41360241	2";NO;2-W;46.4CV;3-8# SIL	957.30
VCP-41360242	2";NO;2-W;46.4CV;8-13# SIL	957.30
VCP-41360243	2";NO;2-W;46.4CV;3-13# SIL	957.30
VCP-41360250	2";NO;2-WAY;46.4CV	1272.00
VCP-41360251	2";NO;2-WAY;46.4CV;3-8#	928.71
VCP-41360252	2";NO;2-WAY;46.4CV;8-13#	928.71
VCP-41360253	2";NO;2-WAY;46.4CV;3-13#	928.71
VCP-41360260	2";NO;2-WAY;46.4CV	1731.15
VCP-41360261	2";NO;2-WAY;46.4CV;3-8#	1230.51
VCP-41360262	2";NO;2-WAY;46.4CV;8-13#	1230.51
VCP-41360263	2";NO;2-WAY;46.4CV;3-13#	1230.51
VCP-42310240	1/2";NC;2-WAY;4.6CV SIL	948.08
VCP-42310241	1/2";NC;2-W;4.6CV;3-8# SIL	604.78
VCP-42310242	1/2";NC;2-WAY;4.6CV;8-13#;SIL	604.78
VCP-42310243	1/2";NC;2-W;4.6CV;3-13# SIL	604.78
VCP-42310250	1/2";NC;2-WAY;4.6CV	919.47
VCP-42310251	1/2";NC;2-WAY;4.6CV;3-8#	576.17
VCP-42310252	1/2";NC;2-WAY;4.6CV;8-13#	576.17
VCP-42310253	1/2";NC;2-WAY;4.6CV;3-13#	576.17
VCP-42310260	1/2";NC;2-WAY;4.6CV	1321.42
VCP-42310261	1/2";NC;2-WAY;4.6CV;3-8#	820.77
VCP-42310262	1/2";NC;2-WAY;4.6CV;8-13#	820.77
VCP-42310263	1/2";NC;2-WAY;4.6CV;3-13#	820.77
VCP-42320240	3/4";NC;2-WAY;6.9CV SIL	948.08
VCP-42320241	3/4";NC;2-WAY;6.9CV;3-8#;SIL	604.78
VCP-42320242	3/4";NC;2-W;6.9CV;8-13# SIL	604.78
VCP-42320243	3/4";NC;2-W;6.9CV;3-13# SIL	604.78
VCP-42320250	3/4";NC;2-WAY;6.9CV	919.47
VCP-42320251	3/4";NC;2-WAY;6.9CV;3-8#	576.17
VCP-42320252	3/4";NC;2-WAY;6.9CV;8-13#	576.17
VCP-42320253	3/4";NC;2-WAY;6.9CV;3-13#	576.17
VCP-42320260	3/4";NC;2-WAY;6.9CV	1321.42
VCP-42320261	3/4";NC;2-WAY;6.9CV;3-8#	820.77
VCP-42320262	3/4";NC;2-WAY;6.9CV;8-13#	820.77
VCP-42320263	3/4";NC;2-WAY;6.9CV;3-13#	820.77
VCP-42330240	1";NC;2-WAY;11.6CV SIL	980.84
VCP-42330241	1";NC;2-W;11.6CV;3-8#;SIL	637.54
VCP-42330242	1";NC;2-W;11.6CV;8-13#;SIL	637.54
VCP-42330243	1";NC;2-W;11.6CV;3-13#;SIL	637.54
VCP-42330250	1";NC;2-WAY;11.6CV	952.23
VCP-42330251	1";NC;2-WAY;11.6CV;3-8#	608.93
VCP-42330252	1";NC;2-WAY;11.6CV;8-13#	608.93
VCP-42330253	1";NC;2-WAY;11.6CV;3-13#	608.93
VCP-42330260	1";NC;2-WAY;11.6CV	1354.18
VCP-42330261	1";NC;2-WAY;11.6CV;3-8#	853.53
VCP-42330262	1";NC;2-WAY;11.6CV;8-13#	853.53
VCP-42330263	1";NC;2-WAY;11.6CV;3-13#	853.53
VCP-42340240	1 1/4";NC;2-W;18.5CV;SIL	1102.64
VCP-42340241	1 1/4";NC;2-W;18.5CV;3-8#;SIL	759.34
VCP-42340242	1 1/4";NC;2-W;18.5CV;8-13#;SIL	759.34
VCP-42340243	1 1/4";NC;2-W;18.5CV;3-13#;SIL	759.34
VCP-42340250	1 1/4";NC;2-WAY;18.5CV	1074.03
VCP-42340251	1 1/4";NC;2-WAY;18.5CV;3-8#	730.73
VCP-42340252	1 1/4";NC;2-WAY;18.5CV;8-13#	730.73
VCP-42340253	1 1/4";NC;2-WAY;18.5CV;3-13#	730.73
VCP-42340260	1 1/4";NC;2-WAY;18.5CV	1475.97



Price List

Part Number	Description	List Price (Each)
VCP-42340261	1 1/4";NC;2-WAY;18.5CV;3-8#	975.33
VCP-42340262	1 1/4";NC;2-WAY;18.5CV;8-13#	975.33
VCP-42340263	1 1/4";NC;2-WAY;18.5CV;3-13#	975.33
VCP-42350240	1 1/2";NC;2-W;29.0CV;SIL	1172.23
VCP-42350241	1 1/2";NC;2-W;29.0CV;3-8#;SIL	828.93
VCP-42350242	1 1/2";NC;2-W;29.0CV;8-13#;SIL	828.93
VCP-42350243	1 1/2";NC;2-W;29.0CV;3-13#;SIL	828.93
VCP-42350250	1 1/2";NC;2-WAY;29.0CV	1143.62
VCP-42350251	1 1/2";NC;2-WAY;29.0CV;3-8#	800.32
VCP-42350252	1 1/2";NC;2-WAY;29.0CV;8-13#	800.32
VCP-42350253	1 1/2";NC;2-WAY;29.0CV;3-13#	800.32
VCP-42350260	1 1/2";NC;2-WAY;29.0CV	1545.57
VCP-42350261	1 1/2";NC;2-WAY;29.0CV;3-8#	1044.92
VCP-42350262	1 1/2";NC;2-WAY;29.0CV;8-13#	1044.92
VCP-42350263	1 1/2";NC;2-WAY;29.0CV;3-13#	1044.92
VCP-42360240	2";NC;2-W;46.4CV;SIL	1300.60
VCP-42360241	2";NC;2-W;46.4CV;3-8#;SIL	957.30
VCP-42360242	2";NC;2-W;46.4CV;8-13#;SIL	957.30
VCP-42360243	2";NC;2-W;46.4CV;3-13#;SIL	957.30
VCP-42360250	2";NC;2-WAY;46.4CV	1271.99
VCP-42360251	2";NC;2-WAY;46.4CV;3-8#	928.69
VCP-42360252	2";NC;2-WAY;46.4CV;8-13#	928.69
VCP-42360253	2";NC;2-WAY;46.4CV;3-13#	928.69
VCP-42360260	2";NC;2-WAY;46.4CV	1731.15
VCP-42360261	2";NC;2-WAY;46.4CV;3-8#	1230.51
VCP-42360262	2";NC;2-WAY;46.4CV;8-13#	1230.51
VCP-42360263	2";N.C.;2-WAY;46.4CV;3-13#	1230.51
VCP-43310240	1/2";3-W MIX;4.6CV;SIL	959.88
VCP-43310241	1/2";3-W MIX;4.6CV;3-8#;SIL	616.58
VCP-43310242	1/2";3-W MIX;4.6CV;8-13#;SIL	616.58
VCP-43310243	1/2";3-W MIX;4.6CV;3-13#;SIL	616.58
VCP-43310250	1/2";3-WAY MIX;4.6CV	931.28
VCP-43310251	1/2";3-WAY MIX;4.6CV;3-8#	587.97
VCP-43310252	1/2";3-WAY MIX;4.6CV;8-13#	587.97
VCP-43310253	1/2";3-WAY MIX;4.6CV;3-13#	587.97
VCP-43310260	1/2";3-WAY MIX;4.6CV	1333.22
VCP-43310261	1/2";3-WAY MIX;4.6CV;3-8#	832.57
VCP-43310262	1/2";3-WAY MIX;4.6CV;8-13#	832.57
VCP-43310263	1/2";3-WAY MIX;4.6CV;3-13#	832.57
VCP-43320240	3/4";3-W MIX;6.9CV;SIL	959.88
VCP-43320241	3/4";3-W MIX;6.9CV;3-8#;SIL	616.58
VCP-43320242	3/4";3-W MIX;6.9CV;8-13#;SIL	616.58
VCP-43320243	3/4";3-W MIX;6.9CV;3-13#;SIL	616.58
VCP-43320250	3/4";3-WAY MIX;6.9CV	931.27
VCP-43320251	3/4";3-WAY MIX;6.9CV;3-8#	587.97
VCP-43320252	3/4";3-WAY MIX;6.9CV;8-13#	587.97
VCP-43320253	3/4";3-WAY MIX;6.9CV;3-13#	587.97
VCP-43320260	3/4";3-WAY MIX;6.9CV	1333.22
VCP-43320261	3/4";3-WAY MIX;6.9CV;3-8#	832.57
VCP-43320262	3/4";3-WAY MIX;6.9CV;8-13#	832.57
VCP-43320263	3/4";3-WAY MIX;6.9CV;3-13#	832.57
VCP-43330240	1";3-W MIX;11.6CV;SIL	992.64
VCP-43330241	1";3-W MIX;11.6CV;3-8#;SIL	649.34
VCP-43330242	1";3-W MIX;11.6CV;8-13#;SIL	649.34
VCP-43330243	1";3-W MIX;11.6CV;3-13#;SIL	649.34
VCP-43330250	1";3-WAY MIX;11.6CV	964.03
VCP-43330251	1";3-WAY MIX;11.6CV;3-8#	620.73
VCP-43330252	1";3-WAY MIX;11.6CV;8-13#	620.73
VCP-43330253	1";3-WAY MIX;11.6CV;3-13#	620.73
VCP-43330260	1";3-WAY MIX;11.6CV	1365.97
VCP-43330261	1";3-WAY MIX;11.6CV;3-8#	853.53
VCP-43330262	1";3-WAY MIX;11.6CV;8-13#	853.53
VCP-43330263	1";3-WAY MIX;11.6CV;3-13#	853.53
VCP-43340240	1 1/4";3-W MIX;18.5CV;SIL	1127.66



Price List

Part Number	Description	List Price (Each)
VCP-43340241	1 1/4";3-W MIX;18.5CV;3-8#;SIL	784.36
VCP-43340242	1 1/4";3-W MIX;18.5CV;8-13#SIL	784.36
VCP-43340243	1 1/4";3-W MIX;18.5CV;3-13#SIL	784.36
VCP-43340250	1 1/4";3-WAY MIX;18.5CV	1099.05
VCP-43340251	1 1/4";3-WAY MIX;18.5CV;3-8#	755.75
VCP-43340252	1 1/4";3-WAY MIX;18.5CV;8-13#	755.75
VCP-43340253	1 1/4";3-WAY MIX;18.5CV;3-13#	755.75
VCP-43340260	1 1/4";3-WAY MIX;18.5CV	1501.00
VCP-43340261	1 1/4";3-WAY MIX;18.5CV;3-8#	1000.35
VCP-43340262	1 1/4";3-WAY MIX;18.5CV;8-13#	1000.35
VCP-43340263	1 1/4";3-WAY MIX;18.5CV;3-13#	1000.35
VCP-43350240	1 1/2";3-W MIX;29.0CV;SIL	1197.26
VCP-43350241	1 1/2";3-W MIX;29.0CV;3-8#;SIL	853.96
VCP-43350242	1 1/2";3-W MIX;29.0CV;8-13#SIL	853.96
VCP-43350243	1 1/2";3-W MIX;29.0CV;3-13#SIL	853.96
VCP-43350250	1 1/2";3-WAY MIX;29.0CV	1168.65
VCP-43350251	1 1/2";3-WAY MIX;29.0CV;3-8#	825.35
VCP-43350252	1 1/2";3-WAY MIX;29.0CV;8-13#	825.35
VCP-43350253	1 1/2";3-WAY MIX;29.0CV;3-13#	825.35
VCP-43350260	1 1/2";3-WAY MIX;29.0CV	1570.59
VCP-43350261	1 1/2";3-WAY MIX;29.0CV;3-8#	1069.95
VCP-43350262	1 1/2";3-WAY MIX;29.0CV;8-13#	1069.95
VCP-43350263	1 1/2";3-WAY MIX;29.0CV;3-13#	1069.95
VCP-43360240	2";3-W MIX;46.4CV;SIL	1342.08
VCP-43360241	2";3-W MIX;46.4CV;3-8#;SIL	998.78
VCP-43360242	2";3-W MIX;46.4CV;8-13#;SIL	998.78
VCP-43360243	2";3-W MIX;46.4CV;3-13#;SIL	998.78
VCP-43360250	2";3-WAY MIX;46.4CV	1313.47
VCP-43360251	2";3-WAY MIX;46.4CV;3-8#	970.17
VCP-43360252	2";3-WAY MIX;46.4CV;8-13#	970.17
VCP-43360253	2";3-WAY MIX;46.4CV;3-13#	970.17
VCP-43360260	2";3-WAY MIX;46.4CV	1772.64
VCP-43360261	2";3-WAY MIX;46.4CV;3-8#	1271.99
VCP-43360262	2";3-WAY MIX;46.4CV;8-13#	1271.99
VCP-43360263	2";3-WAY MIX;46.4CV;3-13#	1271.99
VCP-51501270	2.5"2W;NO;DB;125#BR;43.4"TP;PP	2566.51
VCP-51501271	2.5"2W;NO;DB;125BR;43.4"TP3-8	2284.38
VCP-51501272	2.5"2W;NO;DB;125BR;43.4"TP8-13	2284.38
VCP-51501710	2.5"2W;NO;DB;125#BR;84"TOP;PP	3878.90
VCP-51501715	2.5"2W;NO;DB;125#BR;84"TP;3-8	2752.34
VCP-51501716	2.5"2W;NO;DB;125#BR;84"TP;3-9	3458.86
VCP-51501717	2.5"2W;NO;DB;125#BR;84"TP;9-15	2752.34
VCP-51502270	2.5"2W;NO;DB;250SS;43.4"TP;PP	3575.32
VCP-51502271	2.5"2W;NO;DB;250SS;43.4"TP3-8	3293.19
VCP-51502272	2.5"2W;NO;DB;250SS;43.4"TP8-13	3293.19
VCP-51502710	2.5"2W;NO;DB;250#SS;84"TP;PP	4989.73
VCP-51502715	2.5"2W;NO;DB;250#SS;84"TP;3-15	4569.70
VCP-51502716	2.5"2W;NO;DB;250#SS;84"TP;3-9	4569.70
VCP-51502717	2.5"2W;NO;DB;250#SS;84"TP;9-15	4569.70
VCP-51503270	2.5"2W;NO;DB;125#SS;43.4"TP;PP	3708.28
VCP-51503271	2.5"2W;NO;DB;125#SS43.4"TP3-8#	3426.15
VCP-51503272	2.5"2W;NO;DB;125#SS43.4"TP8-13	3426.15
VCP-51503710	2.5"2W;NO;DB;125#SS;84"TP;PP	4801.94
VCP-51503715	2.5"2W;NO;DB;125#SS;84"TP3-15#	4381.90
VCP-51503716	2.5"2W;NO;DB;125#SS;84"TP3-9#	4381.90
VCP-51503717	2.5"2W;NO;DB;125#SS;84"TP9-15#	4381.90
VCP-51511270	3"2W;NO;DB;125BR;43.4"TP;PP	2798.88
VCP-51511271	3"2W;NO;DB;125BR;43.4"TP;3-8	2516.75
VCP-51511272	3"2W;NO;DB;125BR;43.4"TP;8-13	2516.75
VCP-51511710	3"2W;NO;DB;125#BR;84"TP;PP	4084.90
VCP-51511715	3"2W;NO;DB;125#BR;84"TP;3-15	2978.04
VCP-51511716	3"2W;NO;DB;125#BR;84"TP;3-9	3664.86
VCP-51511717	3"2W;NO;DB;125#BR;84"TP;9-15	2978.04
VCP-51512270	3"2W;NO;DB;250SS;43.4"TP;PP	4029.18



Price List

Part Number	Description	List Price (Each)
VCP-51512271	3"2W;NO;DB;250SS;43.4"TP;3-8	4029.18
VCP-51512272	3"2W;NO;DB;250SS;43.4"TP;8-13	4029.18
VCP-51512710	3"2W;NO;DB;250#SS;84"TP;PP	5401.96
VCP-51512715	3"2W;NO;DB;250#SS;84"TP;3-15	4981.92
VCP-51512716	3"2W;NO;DB;250#SS;84"TP;3-9	4156.72
VCP-51512717	3"2W;NO;DB;250#SS;84"TP;9-15	4981.92
VCP-51513270	3"2W;NO;DB;125#SS;43.4"TP;PP	4043.99
VCP-51513271	3"2W;NO;DB;125#SS;43.4"TP3-8#	3761.86
VCP-51513272	3"2W;NO;DB;125#SS;43.4"TP8-13#	3761.86
VCP-51513710	3"2W;NO;DB;125#SS;84"TP;PP	5137.66
VCP-51513715	3"2W;NO;DB;125#SS;84"TP;3-15#	4717.62
VCP-51513716	3"2W;NO;DB;125#SS;84"TP;3-9#	4717.62
VCP-51513717	3"2W;NO;DB;125#SS;84"TP;9-15#	4717.62
VCP-51521270	4"2W;NO;DB;125BR;43.4"TP;PP	3295.74
VCP-51521271	4"2W;NO;DB;125BR;43.4"TP;3-8	3013.61
VCP-51521272	4"2W;NO;DB;125BR;43.4"TP;8-13	3013.61
VCP-51521710	4"2W;NO;DB;125#BR;84"TP;PP	3868.32
VCP-51521715	4"2W;NO;DB;125#BR;84"TP;3-15	3448.26
VCP-51521716	4"2W;NO;DB;125#BR;84"TP;3-9	3448.26
VCP-51521717	4"2W;NO;DB;125#BR;84"TP;9-15	3448.26
VCP-51522270	4"2W;NO;DB;250SS;43.4"TP;PP	4887.53
VCP-51522271	4"2W;NO;DB;250SS;43.4"TP;3-8	4605.40
VCP-51522272	4"2W;NO;DB;250SS;43.4"TP;8-13	4605.40
VCP-51522710	4"2W;NO;DB;250#SS;84"TP;PP	5391.83
VCP-51522715	4"2W;NO;DB;250#SS;84"TP;3-15	6035.40
VCP-51522716	4"2W;NO;DB;250#SS;84"TP;3-9	6035.40
VCP-51522717	4"2W;NO;DB;250#SS;84"TP;9-15	6035.40
VCP-51523270	4"2W;NO;DB;125#SS;43.4"TP;PP	4963.56
VCP-51523271	4"2W;NO;DB;125#SS;43.4"TP3-8#	4681.43
VCP-51523272	4"2W;NO;DB;125#SS;43.4"TP8-13#	4681.43
VCP-51523710	4"2W;NO;DB;125#SS;84"TP;PP	6057.23
VCP-51523715	4"2W;NO;DB;125#SS;84"TP;3-15#	5637.19
VCP-51523716	4"2W;NO;DB;125#SS;84"TP;3-9#	5637.19
VCP-51523717	4"2W;NO;DB;125#SS;84"TP;9-15#	5637.19
VCP-51561710	5"2W;NO;DB;125#BR;84"TP;PP	6220.19
VCP-51561715	5"2W;NO;DB;125#BR;84"TP;3-15	5781.36
VCP-51561716	5"2W;NO;DB;125#BR;84"TP;3-9	5781.36
VCP-51561717	5"2W;NO;DB;125#BR;84"TP;9-15	5781.36
VCP-51562710	5"2W;NO;DB;250#SS;84"TP;PP	6382.42
VCP-51562715	5"2W;NO;DB;250#SS;84"TP;3-15	8315.13
VCP-51562716	5"2W;NO;DB;250#SS;84"TP;3-9	5943.55
VCP-51562717	5"2W;NO;DB;250#SS;84"TP;9-15	8315.13
VCP-51563710	5"2W;NO;DB;125#SS;84"TP;PP	7767.06
VCP-51563715	5"2W;NO;DB;125#SS;84"TP;3-15#	7328.21
VCP-51563716	5"2W;NO;DB;125#SS;84"TP;3-9#	7328.21
VCP-51563717	5"2W;NO;DB;125#SS;84"TP;9-15#	7328.21
VCP-51571710	6"2W;NO;DB;125#BR;84"TP;PP	5642.61
VCP-51571715	6"2W;NO;DB;125#BR;84"TP;3-15	6510.81
VCP-51571716	6"2W;NO;DB;125#BR;84"TP;3-9	6510.81
VCP-51571717	6"2W;NO;DB;125#BR;84"TP;9-15	6510.81
VCP-51572710	6"2W;NO;DB;250#SS;84"TP;PP	10084.67
VCP-51572715	6"2W;NO;DB;250#SS;84"TP;3-15	9645.83
VCP-51572716	6"2W;NO;DB;250#SS;84"TP;3-9	9645.83
VCP-51572717	6"2W;NO;DB;250#SS;84"TP;9-15	9645.83
VCP-51573710	6"2W;NO;DB;125#SS;84"TP;PP	8907.32
VCP-51573715	6"2W;NO;DB;125#SS;84"TP;3-15#	8468.47
VCP-51573716	6"2W;NO;DB;125#SS;84"TP;3-9#	8468.47
VCP-51573717	6"2W;NO;DB;125#SS;84"TP;9-15#	8468.47
VCP-51701270	2.5"2W;NO;SG;125BR;43.4"TP;PP	2168.69
VCP-51701271	2.5"2W;NO;SG;125BR;43.4"TP3-8	1886.56
VCP-51701272	2.5"2W;NO;SG;125BR;43.4"TP8-13	1886.56
VCP-51701710	2.5"2W;NO;SG;125#BZ;84"TP;PP	3344.38
VCP-51701715	2.5"2W;NO;SG;125#BZ;84"TP;3-15	2924.34
VCP-51701716	2.5"2W;NO;SG;125#BZ;84"TP;3-9	2376.17



Price List

Part Number	Description	List Price (Each)
VCP-51701717	2.5"2W;NO;SG;125#BZ;84"TP;9-15	2376.17
VCP-51702270	2.5"2W;NO;SG;250SS;43.4"TP;PP	3310.33
VCP-51702271	2.5"2W;NO;SG;250SS;43.4"TP3-8	3028.20
VCP-51702272	2.5"2W;NO;SG;250SS;43.4"TP8-13	3028.20
VCP-51702710	2.5"2W;NO;SG;250#SS;84"TP;PP	4131.55
VCP-51702715	2.5"2W;NO;SG;250#SS;84"TP;3-15	3561.11
VCP-51702716	2.5"2W;NO;SG;250#SS;84"TP;3-9	3561.11
VCP-51702717	2.5"2W;NO;SG;250#SS;84"TP;9-15	3711.52
VCP-51702720	2.5"2W;NO;S;250#SS;115"TP;PP	6194.33
VCP-51702725	2.5"2W;NO;S;250#SS;115"TP;3-15	5655.15
VCP-51702726	2.5"2W;NO;S;250#SS;115"TP;3-9	5655.15
VCP-51702727	2.5"2W;NO;S;250#SS;115"TP;9-15	5655.15
VCP-51703270	2.5"2W;NO;SNGL125#SS43.4"TP;PP	2828.50
VCP-51703271	2.5"2W;NO;SNGL125#SS43.4"TP3-8	2546.37
VCP-51703272	2.5"2W;NOSNGL125#SS43.4"TP8-13	2546.37
VCP-51703710	2.5"2W;NO;SNGL;125#SS84"TP;PP	3922.16
VCP-51703715	2.5"2W;NO;SNGL125#SS84"TP3-15#	3502.12
VCP-51703716	2.5"2W;NO;SNGL;125#SS84"TP3-9#	3502.12
VCP-51703717	2.5"2W;NO;SNGL125#SS84"TP9-15#	3502.12
VCP-51703720	2.5"2W;NO;SNGL;125#SS115"TP;PP	5755.06
VCP-51703725	2.5"2W;NO;SNGL125#SS115"TP3-15	5215.88
VCP-51703726	2.5"2W;NO;SNGL125#SS115"TP3-9#	5215.88
VCP-51703727	2.5"2W;NO;SNGL125#SS115"TP9-15	5215.88
VCP-51704270	2.5"2W;NO;SNGL250#BR43.4"TP;PP	2526.63
VCP-51704271	2.5"2W;NO;SNGL250#BR43.4"TP3-8	2244.50
VCP-51704272	2.5"2W;NOSNGL250#BR43.4"TP8-13	2244.50
VCP-51704710	2.5"2W;NO;SNGL;250#BR;84"TP;PP	3528.29
VCP-51704715	2.5"2WNO;SNGL250#BR;84"TP3-15#	3108.25
VCP-51704716	2.5"2W;NO;SNGL250#BR;84"TP3-9#	3108.25
VCP-51704717	2.5"2WNO;SNGL250#BR;84"TP9-15#	3108.25
VCP-51711270	3"2W;NO;SG;125BR;43.4"TP;PP	2311.61
VCP-51711271	3"2W;NO;SG;125BR;43.4"TP;3-8	2029.48
VCP-51711272	3"2W;NO;SG;125BR;43.4"TP;8-13	2029.48
VCP-51711710	3"2W;NO;SG;125#BZ;84"TP;PP	2576.16
VCP-51711715	3"2W;NO;SG;125#BZ;84"TP;3-15	3083.64
VCP-51711716	3"2W;NO;SG;125#BZ;84"TP;3-9	3083.64
VCP-51711717	3"2W;NO;SG;125#BZ;84"TP;9-15	3083.64
VCP-51712270	3"2W;NO;SG;250SS;43.4"TP;PP	3685.34
VCP-51712271	3"2W;NO;SG;250SS;43.4"TP;3-8	3403.21
VCP-51712272	3"2W;NO;SG;250SS;43.4"TP;8-13	3403.21
VCP-51712710	3"2W;NO;SG;250#SS;84"TP;PP	4269.57
VCP-51712715	3"2W;NO;SG;250#SS;84"TP;3-15	4148.15
VCP-51712716	3"2W;NO;SG;250#SS;84"TP;3-9	4148.15
VCP-51712717	3"2W;NO;SG;250#SS;84"TP;9-15	4148.15
VCP-51712720	3"2W;NO;S;250#SS;115"TP;PP	6146.37
VCP-51712725	3"2W;NO;S;250#SS;115"TP;3-15	5943.55
VCP-51712726	3"2W;NO;S;250#SS;115"TP;3-9	5943.55
VCP-51712727	3"2W;NO;S;250#SS;115"TP;9-15	5943.55
VCP-51713270	3"2W;NO;SNGL125#SS;43.4"TP;PP	3201.59
VCP-51713271	3"2W;NO;SNGL125#SS;43.4"TP3-8#	2919.46
VCP-51713272	3"2W;NO;SNGL125#SS;43.4"TP8-13	2919.46
VCP-51713710	3"2W;NO;SNGL;125#SS;84"TP;PP	4295.25
VCP-51713715	3"2W;NO;SNGL;125#SS;84"TP3-15#	3875.21
VCP-51713716	3"2W;NO;SNGL;125#SS;84"TP3-9#	3875.21
VCP-51713717	3"2W;NO;SNGL;125#SS;84"TP9-15#	3875.21
VCP-51713720	3"2W;NO;SNGL;125#SS115"TP;PP	6128.14
VCP-51713725	3"2W;NO;SNGL;125#SS115"TP3-15#	5588.96
VCP-51713726	3"2W;NO;SNGL;125#SS115"TP3-9#	5588.96
VCP-51713727	3"2W;NO;SNGL;125#SS115"TP9-15#	5588.96
VCP-51714270	3"2W;NO;SNGL250#BR;43.4"TP;PP	2833.84
VCP-51714271	3"2W;NO;SNGL250#BR;43.4"TP3-8#	2551.71
VCP-51714272	3"2W;NO;SNGL250#BR43.4"TP8-13#	2551.71
VCP-51714710	3"2W;NO;SNGL;250#BR;84"TP;PP	3765.81
VCP-51714715	3"2W;NO;SNGL;250#BR;84"TP3-15#	3345.78



Part Number	Description	List Price (Each)
VCP-51714716	3"2W;NO;SNGL;250#BR;84"TP3-9#	3345.78
VCP-51714717	3"2W;NO;SNGL;250#BR;84"TP9-15#	3345.78
VCP-51721710	4"2W;NO;SG;125#BZ;84"TP;PP	3908.54
VCP-51721715	4"2W;NO;SG;125#BZ;84"TP;3-15	3469.69
VCP-51721716	4"2W;NO;SG;125#BZ;84"TP;3-9	2858.92
VCP-51721717	4"2W;NO;SG;125#BZ;84"TP;9-15	3469.69
VCP-51722710	4"2W;NO;SG;250#SS;84"TP;PP	5428.89
VCP-51722715	4"2W;NO;SG;250#SS;84"TP;3-15	4990.05
VCP-51722716	4"2W;NO;SG;250#SS;84"TP;3-9	4990.05
VCP-51722717	4"2W;NO;SG;250#SS;84"TP;9-15	4990.05
VCP-51722720	4"2W;NO;S;250#SS;115"TP;PP	7191.19
VCP-51722725	4"2W;NO;S;250#SS;115"TP;3-15	6703.80
VCP-51722726	4"2W;NO;S;250#SS;115"TP;3-9	6703.80
VCP-51722727	4"2W;NO;S;250#SS;115"TP;9-15	6703.80
VCP-51723710	4"2W;NO;SNGL;125#SS;84"TP;PP	5089.70
VCP-51723715	4"2W;NO;SNGL;125#SS;84"TP3-15#	4650.85
VCP-51723716	4"2W;NO;SNGL;125#SS;84"TP3-9#	4650.85
VCP-51723717	4"2W;NO;SNGL;125#SS;84"TP9-15#	4650.85
VCP-51723720	4"2W;NO;SNGL;125#SS115"TP;PP	6922.60
VCP-51723725	4"2W;NO;SNGL;125#SS115"TP3-15#	6364.61
VCP-51723726	4"2W;NO;SNGL;125#SS115"TP3-9#	6364.61
VCP-51723727	4"2W;NO;SNGL;125#SS115"TP9-15#	6364.61
VCP-51724710	4"2W;NO;SNGL;250#BR;84"TP;PP	4539.17
VCP-51724715	4"2W;NO;SNGL;250#BR;84"TP3-15#	4100.30
VCP-51724716	4"2W;NO;SNGL;250#BR;84"TP3-9#	4100.30
VCP-51724717	4"2W;NO;SNGL;250#BR;84"TP9-15#	4100.30
VCP-51731710	5"2W;NO;SG;125#BZ;84"TP;PP	4119.10
VCP-51731715	5"2W;NO;SG;125#BZ;84"TP;3-15	4399.67
VCP-51731716	5"2W;NO;SG;125#BZ;84"TP;3-9	4399.67
VCP-51731717	5"2W;NO;SG;125#BZ;84"TP;9-15	4399.67
VCP-51732710	5"2W;NO;SG;250#SS;84"TP;PP	6891.64
VCP-51732715	5"2W;NO;SG;250#SS;84"TP;3-15	6452.79
VCP-51732716	5"2W;NO;SG;250#SS;84"TP;3-9	6452.79
VCP-51732717	5"2W;NO;SG;250#SS;84"TP;9-15	6452.79
VCP-51732720	5"2W;NO;S;250#SS;115"TP;PP	8724.54
VCP-51732725	5"2W;NO;S;250#SS;115"TP;3-15	8166.55
VCP-51732726	5"2W;NO;S;250#SS;115"TP;3-9	8166.55
VCP-51732727	5"2W;NO;S;250#SS;115"TP;9-15	8166.55
VCP-51733710	5"2W;NO;SNGL;125#SS;84"TP;PP	6227.36
VCP-51733715	5"2W;NO;SNGL;125#SS;84"TP3-15#	5788.51
VCP-51733716	5"2W;NO;SNGL;125#SS;84"TP3-9#	5788.51
VCP-51733717	5"2W;NO;SNGL;125#SS;84"TP9-15#	5788.51
VCP-51733720	5"2W;NO;SNGL;125#SS115"TP;PP	8060.25
VCP-51733725	5"2W;NO;SNGL;125#SS115"TP3-15#	7502.26
VCP-51733726	5"2W;NO;SNGL;125#SS115"TP3-9#	7502.26
VCP-51733727	5"2W;NO;SNGL;125#SS115"TP9-15#	7502.26
VCP-51734710	5"2W;NO;SNGL;250#BR;84"TP;PP	5931.01
VCP-51734715	5"2W;NO;SNGL;250#BR;84"TP3-15#	5492.14
VCP-51734716	5"2W;NO;SNGL;250#BR;84"TP3-9#	5492.14
VCP-51734717	5"2W;NO;SNGL;250#BR;84"TP9-15#	5492.14
VCP-51741710	6"2W;NO;SG;125#BZ;84"TP;PP	5752.36
VCP-51741715	6"2W;NO;SG;125#BZ;84"TP;3-15	5313.51
VCP-51741716	6"2W;NO;SG;125#BZ;84"TP;3-9	5313.51
VCP-51741717	6"2W;NO;SG;125#BZ;84"TP;9-15	5313.51
VCP-51742710	6"2W;NO;SG;250#SS;84"TP;PP	8272.23
VCP-51742715	6"2W;NO;SG;250#SS;84"TP;3-15	7833.39
VCP-51742716	6"2W;NO;SG;250#SS;84"TP;3-9	7833.39
VCP-51742717	6"2W;NO;SG;250#SS;84"TP;9-15	7833.39
VCP-51742720	6"2W;NO;S;250#SS;115"TP;PP	10105.13
VCP-51742725	6"2W;NO;S;250#SS;115"TP;3-15	9547.14
VCP-51742726	6"2W;NO;S;250#SS;115"TP;3-9	9547.14
VCP-51742727	6"2W;NO;S;250#SS;115"TP;9-15	9547.14
VCP-51743710	6"2W;NO;SNGL;125#SS;84"TP;PP	7271.46
VCP-51743715	6"2W;NO;SNGL;125#SS;84"TP3-15#	6832.62



Price List

Part Number	Description	List Price (Each)
VCP-51743716	6"2W;NO;SNGL;125#SS;84"TP3-9#	6832.62
VCP-51743717	6"2W;NO;SNGL;125#SS;84"TP9-15#	6832.62
VCP-51743720	6"2W;NO;SNGL;125#SS115"TP;PP	9104.36
VCP-51743725	6"2W;NO;SNGL;125#SS115"TP3-15#	8546.37
VCP-51743726	6"2W;NO;SNGL;125#SS115"TP3-9#	8546.37
VCP-51743727	6"2W;NO;SNGL;125#SS115"TP9-15#	8546.37
VCP-51744710	6"2W;NO;SNGL;250#BR;84"TP;PP	6946.52
VCP-51744715	6"2W;NO;SNGL;250#BR;84"TP3-15#	6507.67
VCP-51744716	6"2W;NO;SNGL;250#BR;84"TP3-9#	6507.67
VCP-51744717	6"2W;NO;SNGL;250#BR;84"TP9-15#	6507.67
VCP-52501270	2.5"2W;NC;DB;125BR;43.4"TP;PP	2544.86
VCP-52501271	2.5"2W;NC;DB;125BR;43.4"TP3-8	2284.38
VCP-52501272	2.5"2W;NC;DB;125BR;43.4"TP8-13	2284.38
VCP-52501710	2.5"2W;NC;DB;125#BR;84"TP;PP	3172.40
VCP-52501715	2.5"2W;NC;DB;125#BR;84"TP;3-15	3458.86
VCP-52501716	2.5"2W;NC;DB;125#BR;84"TP;3-9	3458.86
VCP-52501717	2.5"2W;NC;DB;125#BR;84"TP;9-15	2752.34
VCP-52502270	2.5"2W;NC;DB;250SS;43.4"TP;PP	3896.06
VCP-52502271	2.5"2W;NC;DB;250SS;43.4"TP3-8	3613.93
VCP-52502272	2.5"2W;NC;DB;250SS;43.4"TP8-13	3613.93
VCP-52502710	2.5"2W;NC;DB;250#SS;84"TP;PP	4989.73
VCP-52502715	2.5"2W;NC;DB;250#SS;84"TP;3-15	4569.70
VCP-52502716	2.5"2W;NC;DB;250#SS;84"TP;3-9	4569.70
VCP-52502717	2.5"2W;NC;DB;250#SS;84"TP;9-15	4569.70
VCP-52503270	2.5"2W;NC;DB;125#SS;43.4"TP;PP	3247.63
VCP-52503271	2.5"2W;NC;DB;125#SS;43.4"TP3-8	2965.50
VCP-52503272	2.5"2W;NC;DB;125#SS43.4"TP8-13	2965.50
VCP-52503710	2.5"2W;NC;DB125#SS;84"TP;PP	4801.94
VCP-52503715	2.5"2W;NC;DB125#SS;84"TP3-15#	4381.90
VCP-52503716	2.5"2W;NC;DB125#SS;84"TP3-9#	4381.90
VCP-52503717	2.5"2W;NC;DB125#SS;84"TP9-15#	4381.90
VCP-52511270	3"2W;NC;DB;125BR;43.4"TP;PP	2798.88
VCP-52511271	3"2W;NC;DB;125BR;43.4"TP;3-8	2516.75
VCP-52511272	3"2W;NC;DB;125BR;43.4"TP;8-13	2516.75
VCP-52511710	3"2W;NC;DB;125#BR;84"TP;PP	3398.10
VCP-52511715	3"2W;NC;DB;125#BR;84"TP;3-15	3664.86
VCP-52511716	3"2W;NC;DB;125#BR;84"TP;3-9	3664.86
VCP-52511717	3"2W;NC;DB;125#BR;84"TP;9-15	3664.86
VCP-52512270	3"2W;NC;DB;250SS;43.4"TP;PP	4472.75
VCP-52512271	3"2W;NC;DB;250SS;43.4"TP;3-8	4190.62
VCP-52512272	3"2W;NC;DB;250SS;43.4"TP;8-13	4190.62
VCP-52512710	3"2W;NC;DB;250#SS;84"TP;PP	4576.78
VCP-52512715	3"2W;NC;DB;250#SS;84"TP;3-15	4377.35
VCP-52512716	3"2W;NC;DB;250#SS;84"TP;3-9	4377.35
VCP-52512717	3"2W;NC;DB;250#SS;84"TP;9-15	4156.72
VCP-52513270	3"2W;NC;DB;125#SS;43.4"TP;PP	4080.64
VCP-52513271	3"2W;NC;DB;125#SS;43.4"TP3-8#	3798.51
VCP-52513272	3"2W;NC;DB;125#SS;43.4"TP8-13#	3798.51
VCP-52513710	3"2W;NC;DB125#SS;84"TP;PP	5137.66
VCP-52513715	3"2W;NC;DB125#SS;84"TP3-15#	4717.62
VCP-52513716	3"2W;NC;DB125#SS;84"TP3-9#	4717.62
VCP-52513717	3"2W;NC;DB125#SS;84"TP9-15#	4717.62
VCP-52521270	4"2W;NC;DB;125BR;43.4"TP;PP	3697.86
VCP-52521271	4"2W;NC;DB;125BR;43.4"TP;3-8	3415.73
VCP-52521272	4"2W;NC;DB;125BR;43.4"TP;8-13	3415.73
VCP-52521710	4"2W;NC;DB;125#BR;84"TP;PP	4714.03
VCP-52521715	4"2W;NC;DB;125#BR;84"TP;3-15	3448.26
VCP-52521716	4"2W;NC;DB;125#BR;84"TP;3-9	3448.26
VCP-52521717	4"2W;NC;DB;125#BR;84"TP;9-15	3448.26
VCP-52522270	4"2W;NC;DB;250SS;43.4"TP;PP	4887.53
VCP-52522271	4"2W;NC;DB;250SS;43.4"TP;3-8	4605.40
VCP-52522272	4"2W;NC;DB;250SS;43.4"TP;8-13	4605.40
VCP-52522710	4"2W;NC;DB;250#SS;84"TP;PP	6455.44
VCP-52522715	4"2W;NC;DB;250#SS;84"TP;3-15	6035.40



Part Number	Description	List Price (Each)
VCP-52522716	4"2W;NC;DB;250#SS;84"TP;3-9	6035.40
VCP-52522717	4"2W;NC;DB;250#SS;84"TP;9-15	6035.40
VCP-52523270	4"2W;NC;DB;125#SS;43.4"TP;PP	4388.70
VCP-52523271	4"2W;NC;DB;125#SS;43.4"TP3-8#	4106.57
VCP-52523272	4"2W;NC;DB;125#SS;43.4"TP8-13#	4106.57
VCP-52523710	4"2W;NC;DB125#SS;84"TP;PP	6057.23
VCP-52523715	4"2W;NC;DB125#SS;84"TP3-15#	5637.19
VCP-52523716	4"2W;NC;DB125#SS;84"TP3-9#	5637.19
VCP-52523717	4"2W;NC;DB125#SS;84"TP9-15#	5637.19
VCP-52561710	5"2W;NC;DB;125#BR;84"TP;PP	6220.19
VCP-52561715	5"2W;NC;DB;125#BR;84"TP;3-15	5781.36
VCP-52561716	5"2W;NC;DB;125#BR;84"TP;3-9	5781.36
VCP-52561717	5"2W;NC;DB;125#BR;84"TP;9-15	5781.36
VCP-52562710	5"2W;NC;DB;250#SS;84"TP;PP	8753.98
VCP-52562715	5"2W;NC;DB;250#SS;84"TP;3-15	8315.13
VCP-52562716	5"2W;NC;DB;250#SS;84"TP;3-9	8315.13
VCP-52562717	5"2W;NC;DB;250#SS;84"TP;9-15	8315.13
VCP-52563710	5"2W;NC;DB125#SS;84"TP;PP	7767.06
VCP-52563715	5"2W;NC;DB125#SS;84"TP3-15#	7328.21
VCP-52563716	5"2W;NC;DB125#SS;84"TP3-9#	7328.21
VCP-52563717	5"2W;NC;DB125#SS;84"TP9-15#	7328.21
VCP-52571710	6"2W;NC;DB;125#BR;84"TP;PP	6949.66
VCP-52571715	6"2W;NC;DB;125#BR;84"TP;3-15	6510.81
VCP-52571716	6"2W;NC;DB;125#BR;84"TP;3-9	6510.81
VCP-52571717	6"2W;NC;DB;125#BR;84"TP;9-15	6510.81
VCP-52572710	6"2W;NC;DB;250#SS;84"TP;PP	10084.67
VCP-52572715	6"2W;NC;DB;250#SS;84"TP;3-15	9645.83
VCP-52572716	6"2W;NC;DB;250#SS;84"TP;3-9	9650.67
VCP-52572717	6"2W;NC;DB;250#SS;84"TP;9-15	9650.67
VCP-52573710	6"2W;NC;DB125#SS;84"TP;PP	8907.32
VCP-52573715	6"2W;NC;DB125#SS;84"TP3-15#	8468.47
VCP-52573716	6"2W;NC;DB125#SS;84"TP3-9#	8468.47
VCP-52573717	6"2W;NC;DB125#SS;84"TP9-15#	8468.47
VCP-52701270	2.5"2W;NC;SG;125BR;43.4"TP;PP	2168.69
VCP-52701271	2.5"2W;NC;SG;125BR;43.4"TP3-8	1886.56
VCP-52701272	2.5"2W;NC;SG;125BR;43.4"TP8-13	1886.56
VCP-52701710	2.5"2W;NC;SG;125#BZ;84"TP;PP	2796.23
VCP-52701715	2.5"2W;NC;SG;125#BZ;84"TP;3-15	2924.34
VCP-52701716	2.5"2W;NC;SG;125#BZ;84"TP;3-9	2924.34
VCP-52701717	2.5"2W;NC;SG;125#BZ;84"TP;9-15	2924.34
VCP-52702270	2.5"2W;NC;SG;250SS;43.4"TP;PP	3310.33
VCP-52702271	2.5"2W;NC;SG;250SS;43.4"TP3-8	3028.20
VCP-52702272	2.5"2W;NC;SG;250SS;43.4"TP8-13	3028.20
VCP-52702710	2.5"2W;NC;SG;250#SS;84"TP;PP	4131.58
VCP-52702715	2.5"2W;NC;SG;250#SS;84"TP;3-15	3561.11
VCP-52702716	2.5"2W;NC;SG;250#SS;84"TP;3-9	3711.52
VCP-52702717	2.5"2W;NC;SG;250#SS;84"TP;9-15	3561.11
VCP-52702720	2.5"2W;NC;S;250#SS;115"TP;PP	6194.33
VCP-52702725	2.5"2W;NC;S;250#SS;115"TP;3-15	5655.15
VCP-52702726	2.5"2W;NC;S;250#SS;115"TP;3-9	5655.15
VCP-52702727	2.5"2W;NC;S;250#SS;115"TP;9-15	5805.55
VCP-52703270	2.5"2W;NC;SNGL125#SS43.4"TP;PP	2670.83
VCP-52703271	2.5"2W;NC;SNGL125#SS43.4"TP3-8	2388.70
VCP-52703272	2.5"2W;NCSNGL125#SS43.4"TP8-13	2388.70
VCP-52703710	2.5"2W;NC;SNGL;125#SS;84"TP;PP	3776.71
VCP-52703715	2.5"2W;NCSNGL;125#SS84"TP3-15#	3502.12
VCP-52703716	2.5"2W;NCSNGL;125#SS;84"TP3-9#	3502.12
VCP-52703717	2.5"2W;NCSNGL;125#SS84"TP9-15#	3502.12
VCP-52703720	2.5"2W;NC;SNGL125#SS;115"TP;PP	5755.06
VCP-52703725	2.5"2WNC;SNGL125#SS;115"TP3-15	5215.88
VCP-52703726	2.5"2WNC;SNGL125#SS;115"TP3-9#	5215.88
VCP-52703727	2.5"2WNC;SNGL125#SS;115"TP9-15	5215.88
VCP-52704270	2.5"2W;NCSNGL250#BR43.4"TP;PP	2965.50
VCP-52704271	2.5"2W;NCSNGL250#BR43.4"TP3-8#	2683.37



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Part Number	Description	List Price (Each)
VCP-52704272	2.5"2W;NCSNGL250#BR43.4"TP8-13	2683.37
VCP-52704710	2.5"2W;NC;SNGL;250#BR;84"TP;PP	3528.29
VCP-52704715	2.5"2W;NC;SNGL250#BR84"TP3-15#	3108.25
VCP-52704716	2.5"2W;NC;SNGL250#BR;84"TP3-9#	3108.25
VCP-52704717	2.5"2W;NC;SNGL250#BR84"TP9-15#	3108.25
VCP-52711270	3"2W;NC;SG;125BR;43.4"TP;PP	2475.01
VCP-52711271	3"2W;NC;SG;125BR;43.4"TP;3-8	2192.88
VCP-52711272	3"2W;NC;SG;125BR;43.4"TP;8-13	2192.88
VCP-52711710	3"2W;NC;SG;125#BZ;84"TP;PP	3503.68
VCP-52711715	3"2W;NC;SG;125#BZ;84"TP;3-15	2514.10
VCP-52711716	3"2W;NC;SG;125#BZ;84"TP;3-9	2514.10
VCP-52711717	3"2W;NC;SG;125#BZ;84"TP;9-15	2514.10
VCP-52712270	3"2W;NC;SG;250SS;43.4"TP;PP	3692.18
VCP-52712271	3"2W;NC;SG;250SS;43.4"TP;3-8	3410.05
VCP-52712272	3"2W;NC;SG;250SS;43.4"TP;8-13	3410.05
VCP-52712710	3"2W;NC;SG;250#SS;84"TP;PP	4269.57
VCP-52712715	3"2W;NC;SG;250#SS;84"TP;3-15	4148.15
VCP-52712716	3"2W;NC;SG;250#SS;84"TP;3-9	4148.15
VCP-52712717	3"2W;NC;SG;250#SS;84"TP;9-15	4148.15
VCP-52712720	3"2W;NC;S;250#SS;115"TP;PP	6146.37
VCP-52712725	3"2W;NC;S;250#SS;115"TP;3-15	5943.55
VCP-52712726	3"2W;NC;S;250#SS;115"TP;3-9	5943.55
VCP-52712727	3"2W;NC;S;250#SS;115"TP;9-15	5943.55
VCP-52713270	3"2W;NC;SNGL125#SS;43.4"TP;PP	2965.50
VCP-52713271	3"2W;NC;SNGL125#SS43.4"TP3-8#	2683.37
VCP-52713272	3"2W;NC;SNGL125#SS43.4"TP8-13#	2683.37
VCP-52713710	3"2W;NC;SNGL;125#SS;84"TP;PP	4295.25
VCP-52713715	3"2W;NC;SNGL;125#SS;84"TP3-15#	3875.21
VCP-52713716	3"2W;NC;SNGL;125#SS;84"TP3-9#	3875.21
VCP-52713717	3"2W;NC;SNGL;125#SS;84"TP9-15#	3875.21
VCP-52713720	3"2W;NC;SNGL125#SS;115"TP;PP	6128.14
VCP-52713725	3"2W;NC;SNGL125#SS;115"TP3-15#	5588.96
VCP-52713726	3"2W;NC;SNGL125#SS;115"TP3-9#	5588.96
VCP-52713727	3"2W;NC;SNGL125#SS;115"TP9-15#	5588.96
VCP-52714270	3"2W;NC;SNGL250#BR43.4"TP;PP	2833.84
VCP-52714271	3"2W;NC;SNGL250#BR43.4"TP8-13#	2551.71
VCP-52714272	3"2W;NC;SNGL250#BR43.4"TP8-13#	2551.71
VCP-52714710	3"2W;NC;SNGL;250#BR84";TP;PP	3765.81
VCP-52714715	3"2W;NC;SNGL;250#BR84";TP3-15#	3345.78
VCP-52714716	3"2W;NC;SNGL;250#BR84";TP3-9#	3345.78
VCP-52714717	3"2W;NC;SNGL;250#BR84";TP9-15#	3345.78
VCP-52721710	4"2W;NC;SG;125#BZ;84"TP;PP	3908.54
VCP-52721715	4"2W;NC;SG;125#BZ;84"TP;3-15	2858.92
VCP-52721716	4"2W;NC;SG;125#BZ;84"TP;3-9	3469.69
VCP-52721717	4"2W;NC;SG;125#BZ;84"TP;9-15	3469.69
VCP-52722710	4"2W;NC;SG;250#SS;84"TP;PP	4978.03
VCP-52722715	4"2W;NC;SG;250#SS;84"TP;3-15	4990.05
VCP-52722716	4"2W;NC;SG;250#SS;84"TP;3-9	4990.05
VCP-52722717	4"2W;NC;SG;250#SS;84"TP;9-15	4990.05
VCP-52722720	4"2W;NC;S;250#SS;115"TP;PP	7191.19
VCP-52722725	4"2W;NC;S;250#SS;115"TP;3-15	6703.80
VCP-52722726	4"2W;NC;S;250#SS;115"TP;3-9	6703.80
VCP-52722727	4"2W;NC;S;250#SS;115"TP;9-15	6703.80
VCP-52723710	4"2W;NC;SNGL;125#SS;84"TP;PP	5089.70
VCP-52723715	4"2W;NC;SNGL;125#SS;84"TP3-15#	4650.85
VCP-52723716	4"2W;NC;SNGL;125#SS;84"TP3-9#	4650.85
VCP-52723717	4"2W;NC;SNGL;125#SS;84"TP9-15#	4650.85
VCP-52723720	4"2W;NC;SNGL125#SS;115"TP;PP	6758.59
VCP-52723725	4"2W;NC;SNGL125#SS;115"TP3-15#	6364.61
VCP-52723726	4"2W;NC;SNGL125#SS;115"TP3-9#	6364.61
VCP-52723727	4"2W;NC;SNGL125#SS;115"TP9-15	6364.61
VCP-52724710	4"2W;NC;SNGL;250#BR84"TP;PP	4539.17
VCP-52724715	4"2W;NC;SNGL;250#BR84"TP3-15#	4100.30
VCP-52724716	4"2W;NC;SNGL;250#BR84"TP3-9#	4100.30



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Part Number	Description	List Price (Each)
VCP-52724717	4"2W;NC;SNGL;250#BR84"TP9-15#	4100.30
VCP-52731710	5"2W;NC;SG;125#BZ;84"TP;PP	4119.10
VCP-52731717	5"2W;NC;SG;125#BZ;84"TP;9-15	4399.67
VCP-52732710	5"2W;NC;SG;250#SS;84"TP;PP	6891.64
VCP-52732717	5"2W;NC;SG;250#SS;84"TP;9-15	6452.79
VCP-52732720	5"2W;NC;S;250#SS;115"TP;PP	8724.54
VCP-52732725	5"2W;NC;S;250#SS;115"TP;3-15	8166.55
VCP-52732726	5"2W;NC;S;250#SS;115"TP;3-9	8166.55
VCP-52732727	5"2W;NC;S;250#SS;115"TP;9-15	8166.55
VCP-52733710	5"2W;NC;SNGL;125#SS;84"TP;PP	6231.84
VCP-52733717	5"2W;NC;SNGL;125#SS;84"TP9-15#	5788.51
VCP-52733720	5"2W;NC;SNGL125#SS;115"TP;PP	8060.25
VCP-52733725	5"2W;NC;SNGL125#SS;115"TP3-15#	7502.26
VCP-52733726	5"2W;NC;SNGL125#SS;115"TP3-9#	7502.26
VCP-52733727	5"2W;NC;SNGL125#SS;115"TP9-15	7502.26
VCP-52734710	5"2W;NC;SNGL;250#BR84"TP;PP	5931.01
VCP-52734717	5"2W;NC;SNGL;250#BR84"TP9-15#	5492.14
VCP-52741710	6"2W;NC;SG;125#BZ;84"TP;PP	4927.88
VCP-52741717	6"2W;NC;SG;125#BZ;84"TP;9-15	5313.51
VCP-52742710	6"2W;NC;SG;250#SS;84"TP;PP	8272.23
VCP-52742717	6"2W;NC;SG;250#SS;84"TP;9-15	7833.39
VCP-52742720	6"2W;NC;S;250#SS;115"TP;PP	10105.13
VCP-52742725	6"2W;NC;S;250#SS;115"TP;3-15	9547.14
VCP-52742726	6"2W;NC;S;250#SS;115"TP;3-9	9547.14
VCP-52742727	6"2W;NC;S;250#SS;115"TP;9-15	9547.14
VCP-52743710	6"2W;NC;SNGL;125#SS;84"TP;PP	7271.46
VCP-52743717	6"2W;NC;SNGL;125#SS;84"TP9-15#	6832.62
VCP-52743720	6"2W;NC;SNGL125#SS;115"TP;PP	9104.36
VCP-52743725	6"2W;NC;SNGL125#SS;115"TP3-15	8546.37
VCP-52743726	6"2W;NC;SNGL125#SS;115"TP3-9#	8546.37
VCP-52743727	6"2W;NC;SNGL125#SS;115"TP9-15#	8546.37
VCP-52744710	6"2W;NC;SNGL;250#BR84"TP;PP	6946.52
VCP-52744717	6"2W;NC;SNGL;250#BR84"TP9-15#	6507.67
VCP-53621270	2.5"3WMIX;125#BR;43.4"TP;PP	2336.59
VCP-53621271	2.5"3WMIX;125#BR;43.4"TP;3-8	2054.46
VCP-53621272	2.5"3WMIX;125#BR;43.4"TP;8-13	2054.46
VCP-53621710	2.5"3W;MXNG;125#BZ;84"TP;PP	3142.62
VCP-53621715	2.5"3W;MXNG;125#BZ;84"TP;3-15	3108.62
VCP-53621716	2.5"3W;MXNG;125#BZ;84"TP;3-9	2514.10
VCP-53621717	2.5"3W;MXNG;125#BZ;84"TP;9-15	3108.62
VCP-53622270	2.5"3WMIX;250#SS;43.4"TP;PP	3368.63
VCP-53622271	2.5"3WMIX;250#SS;43.4"TP;3-8	3086.50
VCP-53622272	2.5"3WMIX;250#SS;43.4"TP;8-13	3086.50
VCP-53622710	2.5"3WMX;250#SS84"TOP;PP	4462.30
VCP-53622715	2.5"3WMX;250#SS84"TOP;3-15#	3454.53
VCP-53622716	2.5"3WMX;250#SS84"TOP;3-9#	4042.26
VCP-53622717	2.5"3WMX;250#SS84"TOP;9-15#	4042.26
VCP-53622720	2.5"3W;MXNG;250#SS;115"TP;PP	6295.19
VCP-53622725	2.5"3W;MXNG;250#SS;115"TP;3-15	5756.01
VCP-53622726	2.5"3W;MXNG;250#SS;115"TP;3-9	5756.01
VCP-53622727	2.5"3W;MXNG;250#SS;115"TP;9-15	5756.01
VCP-53623270	2.5"3W;MIX;125#SS;43.4"TP;PP	3246.57
VCP-53623271	2.5"3W;MIX;125#SS;43.4"TP;3-8#	2964.44
VCP-53623272	2.5"3WMIX;125#SS;43.4"TP;8-13#	2964.44
VCP-53623710	2.5"3W;MIX;125#SS;84"TP;PP	4163.44
VCP-53623715	2.5"3W;MIX;125#SS;84"TP;3-15#	3881.33
VCP-53623716	2.5"3W;MIX;125#SS;84"TP;3-9#	3881.33
VCP-53623717	2.5"3W;MIX;125#SS;84"TP;9-15#	3881.33
VCP-53623720	2.5"3WMIX;125#SS;115"TP;PP	5877.22
VCP-53623725	2.5"3WMIX;125#SS;115"TP3-15#	5595.09
VCP-53623726	2.5"3WMIX;125#SS;115"TP3-9#	5595.09
VCP-53623727	2.5"3WMIX;125#SS;115"TP9-15#	5595.09
VCP-53624270	2.5"3W;MIX;250#BR;43.4"TP;PP	2871.46
VCP-53624271	2.5"3W;MIX;250#BR;43.4"TP;3-8#	2589.33



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Part Number	Description	List Price (Each)
VCP-53624272	2.5"3WMIX;250#BR;43.4"TP;8-13#	2589.33
VCP-53624710	2.5"3W;MIX;250#BR;84"TP;PP	3623.04
VCP-53624715	2.5"3W;MIX;250#BR;84"TP 3-15#	3340.93
VCP-53624716	2.5"3W;MIX;250#BR;84"TP 3-9#	3340.93
VCP-53624717	2.5"3W;MIX;250#BR;84"TP 9-15#	3340.93
VCP-53631270	3"3WMIX;125#BR;43.4"TP;PP	2556.82
VCP-53631271	3"3WMIX;125#BR;43.4"TP;3-8	2274.69
VCP-53631272	3"3WMIX;125#BR;43.4"TP;8-13	2274.69
VCP-53631710	3"3W;MXNG;125#BZ;84"TP;PP	3765.25
VCP-53631715	3"3W;MXNG;125#BZ;84"TP;3-15	3345.22
VCP-53631716	3"3WMX,125#BR84"TOP;3-9#	2720.99
VCP-53631717	3"3WMX,125#BR84"TOP;9-15#	3345.19
VCP-53632270	3"3WMIX;250#SS;43.4"TP;PP	4118.81
VCP-53632271	3"3WMIX;250#SS;43.4"TP;3-8	3836.68
VCP-53632272	3"3WMIX;250#SS;43.4"TP;8-13	3836.68
VCP-53632710	3"3WMX,250#SS84"TOP;PP	4351.08
VCP-53632715	3"3WMX,250#SS84"TOP;3-15#	4641.16
VCP-53632716	3"3WMX,250#SS84"TOP;3-9#	3931.02
VCP-53632717	3"3WMX,250#SS84"TOP;9-15#	4641.16
VCP-53632720	3"3W;MXNG;250#SS;115"TP;PP	6894.09
VCP-53632725	3"3W;MXNG;250#SS;115"TP;3-15	6354.91
VCP-53632726	3"3W;MXNG;250#SS;115"TP;3-9	6354.91
VCP-53632727	3"3W;MXNG;250#SS;115"TP;9-15	6354.91
VCP-53633270	3"3W;MIX;125#SS;43.4"TP;PP	3764.75
VCP-53633271	3"3W;MIX;125#SS;43.4"TP;3-8#	3482.62
VCP-53633272	3"3W;MIX;125#SS;43.4"TP;8-13#	3482.62
VCP-53633710	3"3W;MIX;125#SS;84"TP;PP	4858.41
VCP-53633715	3"3W;MIX;125#SS;84"TP;3-15#	4438.37
VCP-53633716	3"3W;MIX;125#SS;84"TP;3-9#	4438.37
VCP-53633717	3"3W;MIX;125#SS;84"TP;9-15#	4438.37
VCP-53633720	3"3WMIX;125#SS;115"TP;PP	6691.31
VCP-53633725	3"3WMIX;125#SS;115"TP;3-15#	6152.12
VCP-53633726	3"3WMIX;125#SS;115"TP;3-9#	6152.12
VCP-53633727	3"3WMIX;125#SS;115"TP;9-15#	6152.12
VCP-53634270	3"3W;MIX;250#BR;43.4"TP;PP	3253.90
VCP-53634271	3"3W;MIX;250#BR;43.4"TP;3-8#	2971.77
VCP-53634272	3"3WMIX;250#BR;43.4"TP;8-13#	2971.77
VCP-53634710	3"3W;MIX;250#BR;84"TP;PP	4057.13
VCP-53634715	3"3W;MIX;250#BR;84"TP 3-15#	3662.17
VCP-53634716	3"3W;MIX;250#BR;84"TP 3-9#	3662.17
VCP-53634717	3"3W;MIX;250#BR;84"TP 9-15#	3662.17
VCP-53641710	4"3WMX,125#BR84"TOP;PP	4336.21
VCP-53641715	4"3WMX,125#BR84"TOP;3-15#	3897.37
VCP-53641716	4"3WMX,125#BR84"TOP;3-9#	3203.75
VCP-53641717	4"3WMX,125#BR84"TOP;9-15#	3897.37
VCP-53642710	4"3WMX,250#SS84"TOP;PP	6345.79
VCP-53642715	4"3WMX,250#SS84"TOP;3-15#	5906.94
VCP-53642716	4"3WMX,250#SS84"TOP;3-9#	5906.94
VCP-53642717	4"3WMX,250#SS84"TOP;9-15#	5855.77
VCP-53642720	4"3W;MXNG;250#SS;115"TP;PP	8507.80
VCP-53642725	4"3W;MXNG;250#SS;115"TP;3-15	7949.81
VCP-53642726	4"3W;MXNG;250#SS;115"TP;3-9	7949.81
VCP-53642727	4"3W;MXNG;250#SS;115"TP;9-15	7949.81
VCP-53643710	4"3W;MIX;125#SS;84"TP;PP	5711.31
VCP-53643715	4"3W;MIX;125#SS;84"TP;3-15#	5272.46
VCP-53643716	4"3W;MIX;125#SS;84"TP;3-9#	5272.46
VCP-53643717	4"3W;MIX;125#SS;84"TP;9-15#	5272.46
VCP-53643720	4"3WMIX;125#SS;115"TP;PP	7544.20
VCP-53643725	4"3WMIX;125#SS;115"TP;3-15#	6986.21
VCP-53643726	4"3WMIX;125#SS;115"TP;3-9#	6986.21
VCP-53643727	4"3WMIX;125#SS;115"TP;9-15#	6986.21
VCP-53644710	4"3W;MIX;250#BR;84"TP;PP	5184.93
VCP-53644715	4"3W;MIX;250#BR;84"TP 3-15#	4771.14
VCP-53644716	4"3W;MIX;250#BR;84"TP 3-9#	4771.14



Price List

Part Number	Description	List Price (Each)
VCP-53644717	4"3W;MIX;250#BR;84"TP 9-15#	4771.14
VCP-53651710	5"3WMX,125#BR84"TOP;PP	5422.94
VCP-53651717	5"3WMX,125#BR84"TOP;9-15#	4144.18
VCP-53652710	5"3WMX,250#SS84"TOP;PP	8044.33
VCP-53652717	5"3WMX,250#SS84"TOP;9-15#	7605.49
VCP-53652720	5"3W;MXNG;250#SS;115"TP;PP	9604.97
VCP-53652725	5"3W;MXNG;250#SS;115"TP;3-15	9319.24
VCP-53652726	5"3W;MXNG;250#SS;115"TP;3-9	9319.24
VCP-53652727	5"3W;MXNG;250#SS;115"TP;9-15	9319.24
VCP-53653710	5"3W;MIX;125#SS;84"TP;PP	7106.91
VCP-53653717	5"3W;MIX;125#SS;84"TP;9-15#	6668.07
VCP-53653720	5"3WMIX;125#SS;115"TP;PP	8939.82
VCP-53653725	5"3WMIX;125#SS;115"TP;3-15#	8381.83
VCP-53653726	5"3WMIX;125#SS;115"TP;3-9#	8381.83
VCP-53653727	5"3WMIX;125#SS;115"TP;9-15#	8381.83
VCP-53654710	5"3W;MIX;250#BR;84"TP;PP	6927.87
VCP-53654717	5"3W;MIX;250#BR;84"TP 9-15#	6514.08
VCP-53661710	6"3WMX,125#BR84"TOP;PP	6147.45
VCP-53661717	6"3WMX,125#BR84"TOP;9-15#	4771.14
VCP-53662710	6"3WMX,250#SS84"TOP;PP	9117.64
VCP-53662717	6"3WMX,250#SS84"TOP;9-15#	8678.79
VCP-53662720	6"3W;MXNG;250#SS;115"TP;PP	10950.53
VCP-53662725	6"3W;MXNG;250#SS;115"TP;3-15	10392.54
VCP-53662726	6"3W;MXNG;250#SS;115"TP;3-9	10392.54
VCP-53662727	6"3W;MXNG;250#SS;115"TP;9-15	10392.54
VCP-53663710	6"3W;MIX;125#SS;84"TP;PP	8084.19
VCP-53663717	6"3W;MIX;125#SS;84"TP;9-15#	7645.34
VCP-53663720	6"3WMIX;125#SS;115"TP;PP	9917.09
VCP-53663725	6"3WMIX;125#SS;115"TP;3-15#	9359.10
VCP-53663726	6"3WMIX;125#SS;115"TP;3-9#	9359.10
VCP-53663727	6"3WMIX;125#SS;115"TP;9-15#	9359.10
VCP-53664710	6"3W;MIX;250#BR;84"TP;PP	7398.09
VCP-53664717	6"3W;MIX;250#BR;84"TP 9-15#	6959.22
VCP-54531270	2.5"3W;DIV;125BR;43.4"TP;PP	3604.91
VCP-54531271	2.5"3W;DIV;125BR;43.4"TP;3-8	3322.78
VCP-54531272	2.5"3W;DIV;125BR;43.4"TP;8-13	3322.78
VCP-54531710	2.5"3WDVRT,125#BR84"TOP;PP	4503.16
VCP-54531717	2.5"3WDVRT,125#BR84"TOP;9-15#	4083.12
VCP-54532270	2.5"3W;DIV;250#SS;43.4"TP;PP	6225.68
VCP-54532271	2.5"3W;DIV;250#SS;43.4"TP3-8#	5943.55
VCP-54532272	2.5"3W;DIV;250#SS;43.4"TP8-13#	5943.55
VCP-54532710	2.5"3W;DIV;250#SS;84"TP PP	6896.52
VCP-54532717	2.5"3W;DIV;250#SS;84"TP 9-15#	6476.46
VCP-54533270	2.5"3W;DIV;125#SS;43.4"TP;PP	5210.01
VCP-54533271	2.5"3W;DIV;125#SS;43.4"TP;3-8#	4927.88
VCP-54533272	2.5"3WDIV;125#SS;43.4"TP;8-13#	4927.88
VCP-54533710	2.5"3W;DIV;125#SS;84"TP PP	6061.95
VCP-54533717	2.5"3W;DIV;125#SS;84"TP 9-15#	5641.91
VCP-54541270	3"3W;DIV;125BR;43.4"TP;PP	4004.01
VCP-54541271	3"3W;DIV;125BR;43.4"TP;3-8	3721.88
VCP-54541272	3"3W;DIV;125BR;43.4"TP;8-13	3721.88
VCP-54541710	3"3WDVRT,125#BR84"TOP;PP	4526.63
VCP-54541717	3"3WDVRT,125#BR84"TOP;9-15#	4369.38
VCP-54542270	3"3W;DIV;250#SS;43.4"TP;PP	7065.80
VCP-54542271	3"3W;DIV;250#SS;43.4"TP;3-8#	6783.67
VCP-54542272	3"3W;DIV;250#SS;43.4"TP;8-13#	6783.67
VCP-54542710	3"3W;DIV;250#SS;84"TP PP	7736.64
VCP-54542717	3"3W;DIV;250#SS;84"TP 9-15#	7316.58
VCP-54543270	3"3W;DIV;125#SS;43.4"TP;PP	5880.85
VCP-54543271	3"3W;DIV;125#SS;43.4"TP;3-8#	5598.72
VCP-54543272	3"3W;DIV;125#SS;43.4"TP;8-13#	5598.72
VCP-54543710	3"3W;DIV;125#SS;84"TP PP	6688.61
VCP-54543717	3"3W;DIV;125#SS;84"TP 9-15#	6268.57
VCP-54551270	4"3W;DIV;125BR;43.4"TP;PP	4543.88



Price List

Part Number	Description	List Price (Each)
VCP-54551271	4"3W;DIV;125BR;43.4"TP;3-8	4261.75
VCP-54551272	4"3W;DIV;125BR;43.4"TP;8-13	4261.75
VCP-54551710	4"3WDVRT,125#BR84"TOP;PP	5028.19
VCP-54551717	4"3WDVRT,125#BR84"TOP;9-15#	4608.13
VCP-54552270	4"3W;DIV;250#SS;43.4"TP;PP	8156.70
VCP-54552271	4"3W;DIV;250#SS;43.4"TP;3-8#	7874.57
VCP-54552272	4"3W;DIV;250#SS;43.4"TP;8-13#	7874.57
VCP-54552710	4"3W;DIV;250#SS;84"TP PP	8827.55
VCP-54552717	4"3W;DIV;250#SS;84"TP 9-15#	8407.49
VCP-54553270	4"3W;DIV;125#SS;43.4"TP;PP	6929.76
VCP-54553271	4"3W;DIV;125#SS;43.4"TP;3-8#	6647.63
VCP-54553272	4"3W;DIV;125#SS;43.4"TP;8-13#	6647.63
VCP-54553710	4"3W;DIV;125#SS;84"TP PP	7685.70
VCP-54553717	4"3W;DIV;125#SS;84"TP 9-15#	7265.68
VCP-54581710	5"3WDVRT,125#BR84"TOP;PP	6686.63
VCP-54581717	5"3WDVRT,125#BR84"TOP;9-15#	5705.30
VCP-54582710	5"3W;DIV;250#SS;84"TP PP	11247.60
VCP-54582717	5"3W;DIV;250#SS;84"TP 9-15#	10808.73
VCP-54583710	5"3W;DIV;125#SS;84"TP PP	10050.11
VCP-54583717	5"3W;DIV;125#SS;84"TP 9-15#	9611.24
VCP-54591720	6"3WDVRT,125#BR115"TP;PP	9924.72
VCP-54591727	6"3WDVRT,125#BR115"TP;9-15#	9366.73
VCP-54592720	6"3W;DIV;250#SS;115"TP;PP	16570.46
VCP-54592727	6"3W;DIV;250#SS;115"TP 9-15#	16012.47
VCP-54593720	6"3W;DIV;125#SS;115"TP;PP	13542.26
VCP-54593727	6"3W;DIV;125#SS;115"TP 9-15#	12978.00
VCP-558114MO	2W,MTL.SEAT;2",MTL.ACT.W/O POS	1423.74
VCP-558114MP	2W,MTL.SEAT;2",MTL.ACT.W/POS	1570.92
VCP-558114PO	2W,MTL.SEAT;2",PLS.ACT.W/O.POS	1379.22
VCP-558114PP	2W,MTL.SEAT;2",PLS.ACT.W/POS	1425.74
VCP-558214MO	2W,MTL.SEAT;2.5",MTL.ACT.W/OPO	1508.86
VCP-558214MP	2W,MTL.SEAT;2.5",MTL.ACT.W/POS	1656.04
VCP-558214PO	2W,MTL.SEAT;2.5",PLS.ACT.W/OPO	1464.35
VCP-558214PP	2W,MTL.SEAT;2.5",PLS.ACT.W/POS	1510.87
VCP-558314MO	2W,MTL.SEAT;3",MTL.ACT.W/O POS	1617.19
VCP-558314MP	2W,MTL.SEAT;3",MTL.ACT.W/ POS	1764.41
VCP-558314PO	2W,MTL.SEAT;3",PLS.ACT.W/O PO	1572.71
VCP-558314PP	2W,MTL.SEAT;3",PLS.ACT.W/ POS	1619.23
VCP-558414MO	2W,MTL.SEAT;4",MTL.ACT.W/OPOS	1710.06
VCP-558414MP	2W,MTL.SEAT;4",MTL.ACT.W/POS	1857.23
VCP-558414PO	2W,MTL.SEAT;4",PLS.ACT.W/OPOS	1665.58
VCP-558414PP	2W,MTL.SEAT;4",PLS.ACT.W/POS	1712.06
VCP-558514MO	2W,MTL.SEAT;5",MTL.ACT.W/O POS	1810.67
VCP-558514MP	2W,MTL.SEAT;5",MTL.ACT.W/ POS	1957.85
VCP-558514PO	2W,MTL.SEAT;5",PLS.ACT.W/O POS	1766.15
VCP-558514PP	2W,MTL.SEAT;5",PLS.ACT.W/ POS	1812.67
VCP-558614MO	2W,MTL.SEAT;6",MTL.ACT.W/OPOS	1903.54
VCP-558614MP	2W,MTL.SEAT;6",MTL.ACT.W/POS	2050.72
VCP-558614PO	2W,MTL.SEAT;6",PLS.ACT.W/OPOS	1859.02
VCP-558614PP	2W,MTL.SEAT;6",PLS.ACT.W/POS	1905.54
VCP-558714MO	2W,MTL.SEAT;8",MTL.ACT.W/OPOS	2569.04
VCP-558714MP	2W,MTL.SEAT;8",MTL.ACT.W/POS	2716.22
VCP-558714PO	2W,MTL.SEAT;8",PLS.ACT.W/OPOS	2524.56
VCP-558714PP	2W,MTL.SEAT;8",PLS.ACT.W/POS	2571.04
VCP-558816MO	2W,MTL.SEAT;10"MTL.ACT.W/OPOS	3453.95
VCP-558816MP	2W,MTL.SEAT;10"MTL.ACT.W/POS	3568.40
VCP-558816PO	2W,MTL.SEAT;10"PLS.ACT.W/OPOS	3385.76
VCP-558816PP	2W,MTL.SEAT;10"PLS.ACT.W/POS	3499.91
VCP-558824MO	2W,MTL.SEAT;10"MTL.ACT.W/OPOS	3497.53
VCP-558824MP	2W,MTL.SEAT;10"MTL.ACT.W/POS	3791.89
VCP-558824PO	2W,MTL.SEAT;10"PLS.ACT.W/OPOS	3408.53
VCP-558824PP	2W,MTL.SEAT;10"PLS.ACT.W/POS	3501.53
VCP-558916MO	2W,MTL.SEAT;12"MTL.ACT.W/OPOS	3693.83
VCP-558916MP	2W,MTL.SEAT;12"MTL.ACT.W/POS	3808.28



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Part Number	Description	List Price (Each)
VCP-558916PO	2W,MTL.SEAT;12"PLS.ACT.W/OPOS	3625.64
VCP-558916PP	2W,MTL.SEAT;12"PLS.ACT.W/POS	3739.79
VCP-558924MO	2W,MTL.SEAT;12"MTL.ACT.W/OPOS	4062.41
VCP-558924MP	2W,MTL.SEAT;12"MTL.ACT.W/POS	4356.81
VCP-558924PO	2W,MTL.SEAT;12"PLS.ACT.W/OPOS	3973.42
VCP-558924PP	2W,MTL.SEAT;12"PLS.ACT.W/POS	4066.46
VCP-559114MO	2W,RBR.SEAT;2"MTL.ACT.W/OPOS	1462.43
VCP-559114MP	2W,RBR.SEAT;2"MTL.ACT.W/POS	1609.61
VCP-559114PO	2W,RBR.SEAT;2"PLS.ACT.W/OPOS	1417.95
VCP-559114PP	2W,RBR.SEAT;2"PLS.ACT.W/POS	1464.43
VCP-559214MO	2W,RBR.SEAT;2.5"MTL.ACT.W/OPOS	1555.30
VCP-559214MP	2W,RBR.SEAT;2.5"MTL.ACT.W/POS	1702.48
VCP-559214PO	2W,RBR.SEAT;2.5"PLS.ACT.W/OPOS	1510.78
VCP-559214PP	2W,RBR.SEAT;2.5"PLS.ACT.W/POS	1557.30
VCP-559314MO	2W,RBR.SEAT;3"MTL.ACT.W/OPOS	1679.11
VCP-559314MP	2W,RBR.SEAT;3"MTL.ACT.W/POS	1826.29
VCP-559314PO	2W,RBR.SEAT;3"PLS.ACT.W/OPOS	1634.59
VCP-559314PP	2W,RBR.SEAT;3"PLS.ACT.W/POS	1681.11
VCP-559414MO	2W,RBR.SEAT;4"MTL.ACT.W/OPOS	1942.23
VCP-559414MP	2W,RBR.SEAT;4"MTL.ACT.W/POS	2089.41
VCP-559414PO	2W,RBR.SEAT;4"PLS.ACT.W/OPOS	1897.71
VCP-559414PP	2W,RBR.SEAT;4"PLS.ACT.W/POS	1944.23
VCP-559516MO	2W,RBR.SEAT;5"MTL.ACT.W/OPOS	2587.22
VCP-559516MP	2W,RBR.SEAT;5"MTL.ACT.W/POS	2701.66
VCP-559516PO	2W,RBR.SEAT;5"PLS.ACT.W/OPOS	2519.03
VCP-559516PP	2W,RBR.SEAT;5"PLS.ACT.W/POS	2633.18
VCP-559524MO	2W,RBR.SEAT;5"MTL.ACT.W/OPOS	2592.11
VCP-559524MP	2W,RBR.SEAT;5"MTL.ACT.W/POS	2886.47
VCP-559524PO	2W,RBR.SEAT;5"PLS.ACT.W/OPOS	2503.11
VCP-559524PP	2W,RBR.SEAT;5"PLS.ACT.W/POS	2596.11
VCP-559616MO	2W,RBR.SEAT;6"MTL.ACT.W/OPOS	2788.45
VCP-559616MP	2W,RBR.SEAT;6"MTL.ACT.W/POS	2902.90
VCP-559616PO	2W,RBR.SEAT;6"PLS.ACT.W/OPOS	2720.26
VCP-559616PP	2W,RBR.SEAT;6"PLS.ACT.W/POS	2834.42
VCP-559624MO	2W,RBR.SEAT;6"MTL.ACT.W/OPOS	2948.06
VCP-559624MP	2W,RBR.SEAT;6"MTL.ACT.W/POS	3242.46
VCP-559624PO	2W,RBR.SEAT;6"PLS.ACT.W/OPOS	2859.10
VCP-559624PP	2W,RBR.SEAT;6"PLS.ACT.W/POS	2952.10
VCP-559716MO	2W,RBR.SEAT;8"MTL.ACT.W/OPOS	3198.58
VCP-559716MP	2W,RBR.SEAT;8"MTL.ACT.W/POS	3313.02
VCP-559716PO	2W,RBR.SEAT;8"PLS.ACT.W/OPOS	3130.39
VCP-559716PP	2W,RBR.SEAT;8"PLS.ACT.W/POS	3244.54
VCP-559826MO	2W,RBR.SEAT;10"MTL.ACT.W/OPOS	5538.17
VCP-559826MP	2W,RBR.SEAT;10"MTL.ACT.W/POS	5767.06
VCP-559826PO	2W,RBR.SEAT;10"PLS.ACT.W/OPOS	5401.80
VCP-559826PP	2W,RBR.SEAT;10"PLS.ACT.W/POS	5630.10
VCP-559926MO	2W,RBR.SEAT;12"MTL.ACT.W/OPOS	6559.65
VCP-559926MP	2W,RBR.SEAT;12"MTL.ACT.W/POS	6788.55
VCP-559926PO	2W,RBR.SEAT;12"PLS.ACT.W/OPOS	6423.28
VCP-559926PP	2W,RBR.SEAT;12"PLS.ACT.W/POS	6651.59
VCP-568114MO	3W,MTL.SEAT;2"PLS.ACT.W/OPOS	3141.71
VCP-568114MP	3W,MTL.SEAT;2"MTL.ACT.W/POS	3288.89
VCP-568114PO	3W,MTL.SEAT;2"PLS.ACT.W/OPOS	3097.19
VCP-568114PP	3W,MTL.SEAT;2"PLS.ACT.W/OPOS	3143.71
VCP-568214MO	3W,MTL.SEAT;2.5"MTL.ACT.W/OPOS	3327.41
VCP-568214MP	3W,MTL.SEAT;2.5"MTL.ACT.W/POS	3474.59
VCP-568214PO	3W,MTL.SEAT;2.5"PLS.ACT.W/OPOS	3282.93
VCP-568214PP	3W,MTL.SEAT;2.5"PLS.ACT.W/POS	3329.41
VCP-568314MO	3W,MTL.SEAT;3"MTL.ACT.W/OPOS	3675.65
VCP-568314MP	3W,MTL.SEAT;3"MTL.ACT.W/POS	3822.83
VCP-568314PO	3W,MTL.SEAT;3"PLS.ACT.W/OPOS	3631.18
VCP-568314PP	3W,MTL.SEAT;3"PLS.ACT.W/POS	3677.65
VCP-568414MO	3W,MTL.SEAT;4"MTL.ACT.W/OPOS	4325.70
VCP-568414MP	3W,MTL.SEAT;4"MTL.ACT.W/POS	4472.88



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Part Number	Description	List Price (Each)
VCP-568414PO	3W,MTL.SEAT,4",PLS.ACT.W/OPOS	4281.18
VCP-568414PP	3W,MTL.SEAT,4",PLS.ACT.W/POS	4327.70
VCP-568514MO	3W,MTL.SEAT,5",MTL.ACT.W/OPOS	5300.75
VCP-568514MP	3W,MTL.SEAT,5",MTL.ACT.W/POS	5447.93
VCP-568514PO	3W,MTL.SEAT,5",PLS.ACT.W/OPOS	5256.23
VCP-568514PP	3W,MTL.SEAT,5",PLS.ACT.W/POS	5302.75
VCP-568614MO	3W,MTL.SEAT,6",MTL.ACT.W/OPOS	5641.25
VCP-568614MP	3W,MTL.SEAT,6",MTL.ACT.W/POS	5788.43
VCP-568614PO	3W,MTL.SEAT,6",PLS.ACT.W/OPOS	5596.73
VCP-568614PP	3W,MTL.SEAT,6",PLS.ACT.W/POS	5643.25
VCP-568714MO	3W,MTL.SEAT,8",MTL.ACT.W/OPOS	7537.17
VCP-568714MP	3W,MTL.SEAT,8",MTL.ACT.W/POS	7684.35
VCP-568714PO	3W,MTL.SEAT,8",PLS.ACT.W/OPOS	7492.70
VCP-568714PP	3W,MTL.SEAT,8",PLS.ACT.W/POS	7539.22
VCP-568816MO	3W,MTL.SEAT,10"MTL.ACT.W/OPOS	9451.31
VCP-568816MP	3W,MTL.SEAT,10"MTL.ACT.W/POS	9565.76
VCP-568816PO	3W,MTL.SEAT,10"PLS.ACT.W/OPOS	9383.13
VCP-568816PP	3W,MTL.SEAT,10"PLS.ACT.W/POS	9497.28
VCP-568824MO	3W,MTL.SEAT,10"MTL.ACT.W/OPOS	12211.12
VCP-568824MP	3W,MTL.SEAT,10"MTL.ACT.W/POS	12505.48
VCP-568824PO	3W,MTL.SEAT,10"PLS.ACT.W/OPOS	12122.12
VCP-568824PP	3W,MTL.SEAT,10"PLS.ACT.W/POS	12215.12
VCP-568916MO	3W,MTL.SEAT,12"MTL.ACT.W/OPOS	12059.21
VCP-568916MP	3W,MTL.SEAT,12"MTL.ACT.W/POS	12173.66
VCP-568916PO	3W,MTL.SEAT,12"PLS.ACT.W/OPOS	11991.03
VCP-568916PP	3W,MTL.SEAT,12"PLS.ACT.W/POS	12105.18
VCP-568924MO	3W,MTL.SEAT,12"MTL.ACT.W/OPOS	14973.77
VCP-568924MP	3W,MTL.SEAT,12"MTL.ACT.W/POS	15268.13
VCP-568924PO	3W,MTL.SEAT,12"PLS.ACT.W/OPOS	14884.78
VCP-568924PP	3W,MTL.SEAT,12"PLS.ACT.W/POS	14977.77
VCP-569114MO	3W,RBR.SEAT,2"MTL.ACT.W/OPOS	3056.59
VCP-569114MP	3W,RBR.SEAT,2"MTL.ACT.W/POS	3203.77
VCP-569114PO	3W,RBR.SEAT,2"PLS.ACT.W/OPOS	3012.07
VCP-569114PP	3W,RBR.SEAT,2"PLS.ACT.W/POS	3058.59
VCP-569214MO	3W,RBR.SEAT,2.5",MTL.ACT.W/OPO	3304.21
VCP-569214MP	3W,RBR.SEAT,2.5",MTL.ACT.W/PO	3451.39
VCP-569214PO	3W,RBR.SEAT,2.5",PLS.ACT.W/OPO	3259.69
VCP-569214PP	3W,RBR.SEAT,2.5",PLS.ACT.W/PO	3306.21
VCP-569314MO	3W,RBR.SEAT,3",MTL.ACT.W/OPO	3644.71
VCP-569314MP	3W,RBR.SEAT,3",MTL.ACT.W/PO	3791.89
VCP-569314PO	3W,RBR.SEAT,3",PLS.ACT.W/OPO	3600.19
VCP-569314PP	3W,RBR.SEAT,3",PLS.ACT.W/PO	3646.71
VCP-569414MO	3W,RBR.SEAT,4",MTL.ACT.W/OPO	4573.33
VCP-569414MP	3W,RBR.SEAT,4",MTL.ACT.W/PO	4720.51
VCP-569414PO	3W,RBR.SEAT,4",PLS.ACT.W/OPO	4528.81
VCP-569414PP	3W,RBR.SEAT,4",PLS.ACT.W/PO	4575.33
VCP-569516MO	3W,RBR.SEAT,5",MTL.ACT.W/OPO	5257.04
VCP-569516MP	3W,RBR.SEAT,5",MTL.ACT.W/PO	5371.49
VCP-569516PO	3W,RBR.SEAT,5",PLS.ACT.W/OPO	5188.86
VCP-569516PP	3W,RBR.SEAT,5",PLS.ACT.W/PO	5303.01
VCP-569524MO	3W,RBR.SEAT,5",MTL.ACT.W/OPO	5950.63
VCP-569524MP	3W,RBR.SEAT,5",MTL.ACT.W/PO	6244.99
VCP-569524PO	3W,RBR.SEAT,5",PLS.ACT.W/OPO	5861.64
VCP-569524PP	3W,RBR.SEAT,5",PLS.ACT.W/PO	5954.63
VCP-569616MO	3W,RBR.SEAT,6",MTL.ACT.W/OPO	5814.18
VCP-569616MP	3W,RBR.SEAT,6",MTL.ACT.W/PO	5928.67
VCP-569616PO	3W,RBR.SEAT,6",PLS.ACT.W/OPO	5746.04
VCP-569616PP	3W,RBR.SEAT,6",PLS.ACT.W/PO	5860.15
VCP-569624MO	3W,RBR.SEAT,6",MTL.ACT.W/OPO	6809.62
VCP-569624MP	3W,RBR.SEAT,6",MTL.ACT.W/PO	7103.98
VCP-569624PO	3W,RBR.SEAT,6",PLS.ACT.W/OPO	6720.62
VCP-569624PP	3W,RBR.SEAT,6",PLS.ACT.W/PO	6813.62
VCP-569726MO	3W,RBR.SEAT,8",MTL.ACT.W/OPO	8347.26
VCP-569726MP	3W,RBR.SEAT,8",MTL.ACT.W/PO	8576.15



Price List

Part Number	Description	List Price (Each)
VCP-569726PO	3W,RBR.SEAT,8",PLS.ACT.W/OPO	8210.89
VCP-569726PP	3W,RBR.SEAT,8",PLS.ACT.W/PO	8439.19
VCP-569846MO	3W,RBR.SEAT,10",MTL.ACT.W/OPO	12647.25
VCP-569846MP	3W,RBR.SEAT,10",MTL.ACT.W/PO	13105.05
VCP-569846PO	3W,RBR.SEAT,10",PLS.ACT.W/OPO	12374.56
VCP-569846PP	3W,RBR.SEAT,10",PLS.ACT.W/PO	12831.12
VCP-569946MO	3W,RBR.SEAT,12",MTL.ACT.W/OPO	16593.90
VCP-569946MP	3W,RBR.SEAT,12",MTL.ACT.W/PO	17051.74
VCP-569946PO	3W,RBR.SEAT,12",PLS.ACT.W/OPO	16321.20
VCP-569946PP	3W,RBR.SEAT,12",PLS.ACT.W/PO	16777.76
VCP-61260221	1/2";2-WAY;NO;.7CV;3-8# SIL.	264.63
VCP-61260222	1/2";2-WAY;NO;.7CV;8-13# SIL.	264.63
VCP-61260223	1/2";2-WAY;NO;.7CV;3-13# SIL.	264.63
VCP-61260224	1/2";2-WAY;NO;.7CV;9-14# SIL.	264.63
VCP-61260231	1/2";2-WAY;NO;.7CV;3-8#	236.02
VCP-61260232	1/2";2-WAY;NO;.7CV;8-13#	236.02
VCP-61260233	1/2";2-WAY;NO;.7CV;3-13#	236.02
VCP-61260234	1/2";2-WAY;NO;.7CV;9-14#	236.02
VCP-61270221	1/2";2-WAY;NO;1.1CV;3-8# SIL.	264.63
VCP-61270222	1/2";2-WAY;NO;1.1CV;8-13# SIL.	264.63
VCP-61270223	1/2";2-WAY;NO;1.1CV;3-13# SIL.	264.63
VCP-61270224	1/2";2-WAY;NO;1.1CV;9-14# SIL.	264.63
VCP-61270231	1/2";2-WAY;NO;1.1CV;3-8#	236.02
VCP-61270232	1/2";2-WAY;NO;1.1CV;8-13#	236.02
VCP-61270233	1/2";2-WAY;NO;1.1CV;3-13#	236.02
VCP-61270234	1/2";2-WAY;NO;1.1CV;9-14#	236.02
VCP-61280221	1/2";2-WAY;NO;1.8CV;3-8# SIL.	264.63
VCP-61280222	1/2";2-WAY;NO;1.8CV;8-13# SIL.	264.63
VCP-61280223	1/2";2-WAY;NO;1.8CV;3-13# SIL.	264.63
VCP-61280224	1/2";2-WAY;NO;1.8CV;9-14# SIL.	264.63
VCP-61280231	1/2";2-WAY;NO;1.8CV;3-8#	236.02
VCP-61280232	1/2";2-WAY;NO;1.8CV;8-13#	236.02
VCP-61280233	1/2";2-WAY;NO;1.8CV;3-13#	236.02
VCP-61280234	1/2";2-WAY;NO;1.8CV;9-14#	236.02
VCP-61290221	1/2";2-WAY;NO;2.3CV;3-8# SIL.	264.63
VCP-61290222	1/2";2-WAY;NO;2.3CV;8-13# SIL.	264.63
VCP-61290223	1/2";2-WAY;NO;2.3CV;3-13# SIL.	264.63
VCP-61290224	1/2";2-WAY;NO;2.3CV;9-14# SIL.	264.63
VCP-61290231	1/2";2-WAY;NO;2.3CV;3-8#	236.02
VCP-61290232	1/2";2-WAY;NO;2.3CV;8-13#	236.02
VCP-61290233	1/2";2-WAY;NO;2.3CV;3-13#	236.02
VCP-61290234	1/2";2-WAY;NO;2.3CV;9-14#	236.02
VCP-61300221	1/2";2-WAY;NO;2.9CV;3-8# SIL.	264.63
VCP-61300222	1/2";2-WAY;NO;2.9CV;8-13# SIL.	264.63
VCP-61300223	1/2";2-WAY;NO;2.9CV;3-13# SIL.	264.63
VCP-61300224	1/2";2-WAY;NO;2.9CV;9-14# SIL.	264.63
VCP-61300231	1/2";2-WAY;NO;2.9CV;3-8#	236.02
VCP-61300232	1/2";2-WAY;NO;2.9CV;8-13#	236.02
VCP-61300233	1/2";2-WAY;NO;2.9CV;3-13#	236.02
VCP-61300234	1/2";2-WAY;NO;2.9CV;9-14#	236.02
VCP-62260221	1/2";2-WAY;NC;.7CV;3-8# SIL.	264.63
VCP-62260222	1/2";2-WAY;NC;.7CV;8-13# SIL.	264.63
VCP-62260223	1/2";2-WAY;NC;.7CV;3-13# SIL.	264.63
VCP-62260224	1/2";2-WAY;NC;.7CV;9-14# SIL.	264.63
VCP-62260231	1/2";2-WAY;NC;.7CV;3-8#	236.02
VCP-62260232	1/2";2-WAY;NC;.7CV;8-13#	236.02
VCP-62260233	1/2";2-WAY;NC;.7CV;3-13#	236.02
VCP-62260234	1/2";2-WAY;NC;.7CV;9-14#	236.02
VCP-62270221	1/2";2-WAY;NC;1.1CV;3-8# SIL.	264.63
VCP-62270222	1/2";2-WAY;NC;1.1CV;8-13# SIL.	264.63
VCP-62270223	1/2";2-WAY;NC;1.1CV;3-13# SIL.	264.63
VCP-62270224	1/2";2-WAY;NC;1.1CV;9-14# SIL.	264.63
VCP-62270231	1/2";2-WAY;NC;1.1CV;3-8#	236.02
VCP-62270232	1/2";2-WAY;NC;1.1CV;8-13#	236.02



Price List

Part Number	Description	List Price (Each)
VCP-62270233	1/2";2-WAY;NC;1.1CV;3-13#	236.02
VCP-62270234	1/2";2-WAY;NC;1.1CV;9-14#	236.02
VCP-62280221	1/2";2-WAY;NC;1.8CV;3-8# SIL.	264.63
VCP-62280222	1/2";2-WAY;NC;1.8CV;8-13# SIL.	264.63
VCP-62280223	1/2";2-WAY;NC;1.8CV;3-13# SIL.	264.63
VCP-62280224	1/2";2-WAY;NC;1.8CV;9-14# SIL.	264.63
VCP-62280231	1/2";2-WAY;NC;1.8CV;3-8#	236.02
VCP-62280232	1/2";2-WAY;NC;1.8CV;8-13#	236.02
VCP-62280233	1/2";2-WAY;NC;1.8CV;3-13#	236.02
VCP-62280234	1/2";2-WAY;NC;1.8CV;9-14#	236.02
VCP-62290221	1/2";2-WAY;NC;2.3CV;3-8# SIL.	264.63
VCP-62290222	1/2";2-WAY;NC;2.3CV;8-13# SIL.	264.63
VCP-62290223	1/2";2-WAY;NC;2.3CV;3-13# SIL.	264.63
VCP-62290224	1/2";2-WAY;NC;2.3CV;9-14# SIL.	264.63
VCP-62290231	1/2";2-WAY;NC;2.3CV;3-8#	236.02
VCP-62290232	1/2";2-WAY;NC;2.3CV;8-13#	236.02
VCP-62290233	1/2";2-WAY;NC;2.3CV;3-13#	236.02
VCP-62290234	1/2";2-WAY;NC;2.3CV;9-14#	236.02
VCP-62300221	1/2";2-WAY;NC;2.9CV;3-8# SIL.	264.63
VCP-62300222	1/2";2-WAY;NC;2.9CV;8-13# SIL.	264.63
VCP-62300223	1/2";2-WAY;NC;2.9CV;3-13# SIL.	264.63
VCP-62300224	1/2";2-WAY;NC;2.9CV;9-14# SIL.	264.63
VCP-62300231	1/2";2-WAY;NC;2.9CV;3-8#	236.02
VCP-62300232	1/2";2-WAY;NC;2.9CV;8-13#	236.02
VCP-62300233	1/2";2-WAY;NC;2.9CV;3-13#	236.02
VCP-62300234	1/2";2-WAY;NC;2.9CV;9-14#	236.02
VCP-63280221	1/2";3-WAY MXNG;1.8CV;3-8# SIL	264.63
VCP-63280222	1/2";3-WAY MXNG;1.8CV;8-13#SIL	264.63
VCP-63280223	1/2";3-WAY MXNG;1.8CV;3-13#SIL	264.63
VCP-63280224	1/2";3-WAY MXNG;1.8CV;9-14#SIL	264.63
VCP-63280231	1/2";3-WAY MIXING;1.8CV;3-8 #	236.02
VCP-63280232	1/2";3-WAY MIXING;1.8CV;8-13#	236.02
VCP-63280233	1/2";3-WAY MIXING;1.8CV;3-13#	236.02
VCP-63280234	1/2";3-WAY MIXING;1.8CV;9-14#	236.02
VCP-63290221	1/2";3-WAY MXNG;2.3CV;3-8# SIL	264.63
VCP-63290222	1/2";3-WAY MXNG;2.3CV;8-13#SIL	264.63
VCP-63290223	1/2";3-WAY MXNG;2.3CV;3-13#SIL	264.63
VCP-63290224	1/2";3-WAY MXNG;2.3CV;9-14#SIL	264.63
VCP-63290231	1/2";3-WAY MIXING;2.3CV;3-8 #	236.02
VCP-63290232	1/2";3-WAY MIXING;2.3CV;8-13#	236.02
VCP-63290233	1/2";3-WAY MIXING;2.3CV;3-13#	236.02
VCP-63290234	1/2";3-WAY MIXING;2.3CV;9-14#	236.02
VCP-63300221	1/2";3-WAY MXNG;2.9CV;3-8# SIL	264.63
VCP-63300222	1/2";3-WAY MXNG;2.9CV;8-13#SIL	264.63
VCP-63300223	1/2";3-WAY MXNG;2.9CV;3-13#SIL	264.63
VCP-63300224	1/2";3-WAY MXNG;2.9CV;9-14#SIL	264.63
VCP-63300231	1/2";3-WAY MIXING;2.9CV;3-8#	236.02
VCP-63300232	1/2";3-WAY MIXING;2.9CV;8-13#	236.02
VCP-63300233	1/2";3-WAY MIXING;2.9CV;3-13#	236.02
VCP-63300234	1/2";3-WAY MIXING;2.9CV;9-14#	236.02
VCZ-4102AMBD	Valve; 1/2" 2 Way, NPT, 1.0 Cv; 3-8 PSI	130.80
VCZ-4102AMBE	Valve; 1/2" 2 Way, NPT, NO; 1.0 Cv; 8-13 PSI; Fail Open	130.80
VCZ-4102BMBD	Valve; 1/2" 2 Way, NPT, 2.5 Cv; 3-8 PSI	130.80
VCZ-4102BMBE	Valve; 1/2" 2 Way, NPT, NO; 2.5 Cv; 8-13 PSI; Fail Open	130.80
VCZ-4102CMBD	Valve; 1/2" 2 Way, NPT, NO; 4.0 Cv; 3-8 PSI; Fail Open	130.80
VCZ-4102CMBE	Valve; 1/2" 2 Way, NPT, NO; 4.0 Cv; 8-13 PSI; Fail Open	130.80
VCZ-4103AMBD	Valve; 3/4" 2 Way, NPT, NO; 4.1 Cv; 3-8 PSI; Fail Open	151.60
VCZ-4103AMBE	Valve; 3/4" 2 Way, NPT, NO; 4.1 Cv; 8-13 PSI; Fail Open	151.60
VCZ-4104AMBD	Valve; 1" 2 Way, NPT, NO; 7.0 Cv; 3-8 PSI; Fail Open	180.40
VCZ-4104AMBE	Valve; 1" 2 Way, NPT, NO; 7.0 Cv; 8-13 PSI; Fail Open	180.40
VCZ-4402AMBD	Valve; 1/2" 3 Way, NPT, Diverting; 1.0 Cv; 3-8 PSI; Fail AB - A	152.00
VCZ-4402AMBE	Valve; 1/2" 3 Way, NPT, Diverting; 1.0 Cv; 8-13 PSI; Fail AB - A	152.00
VCZ-4402BMBD	Valve; 1/2" 3 Way, NPT, Diverting; 2.5 Cv; 3-8 PSI; Fail AB - A	152.00
VCZ-4402BMBE	Valve; 1/2" 3 Way, NPT, Diverting; 2.5 Cv; 8-13 PSI; Fail AB - A	152.00



Part Number	Description	List Price (Each)
VCZ-4402CMBD	Valve; 1/2" 3 Way, NPT, Diverting; 4.0 Cv; 3-8 PSI; Fail AB - A	152.00
VCZ-4402CMBE	Valve; 1/2" 3 Way, NPT, Diverting; 4.0 Cv; 8-13 PSI; Fail AB - A	152.00
VCZ-4403AMBD	Valve; 3/4" 3 Way, NPT, Diverting; 4.1 Cv; 3-8 PSI; Fail AB - A	184.00
VCZ-4403AMBE	Valve; 3/4" 3 Way, NPT, Diverting; 4.1 Cv; 8-13 PSI; Fail AB - A	184.00
VCZ-4404AMBD	Valve; 1" 3 Way, NPT, Diverting; 7.0 Cv; 3-8 PSI; Fail AB - A	220.00
VCZ-4404AMBE	Valve; 1" 3 Way, NPT, Diverting; 7.0 Cv; 8-13 PSI; Fail AB - A	220.00
VEB-4302BBCF	Valve; 1/2" 2W NPT .38CV;Tri-State ; MEP-4003	260.00
VEB-4302BBCK	Valve; 1/2" 2W NPT .38CV;Proportional; MEP-4002	332.00
VEB-4302BBDH	Valve; 1/2" 2W NPT .38CV; Tri-State w/FS; MEP-5373	392.00
VEB-4302BBDL	Valve; 1/2" 2W NPT .38CV; Proportional w/FS; MEP-5372	420.00
VEB-4302DBCF	Valve; 1/2" 2W NPT .68CV;Tri-State ; MEP-4003	260.00
VEB-4302DBCK	Valve; 1/2" 2W NPT .68CV;Proportional; MEP-4002	332.00
VEB-4302DBDH	Valve; 1/2" 2W NPT .68CV; Tri-State w/FS; MEP-5373	392.00
VEB-4302DBDL	Valve; 1/2" 2W NPT .68CV; Proportional w/FS; MEP-5372	420.00
VEB-4302FBCF	Valve; 1/2" 2W NPT 1.3CV;Tri-State ; MEP-4003	260.00
VEB-4302FBCK	Valve; 1/2" 2W NPT 1.3CV;Proportional; MEP-4002	332.00
VEB-4302FBDH	Valve; 1/2" 2W NPT 1.3CV; Tri-State w/FS; MEP-5373	392.00
VEB-4302FBDL	Valve; 1/2" 2W NPT 1.3CV;Proportional w/FS; MEP-5372	420.00
VEB-4302HBCF	Valve; 1/2" 2W NPT 2.6CV;Tri-State ; MEP-4003	260.00
VEB-4302HBCK	Valve; 1/2" 2W NPT 2.6CV;Proportional; MEP-4002	332.00
VEB-4302HBDH	Valve; 1/2" 2W NPT 2.6CV; Tri-State w/FS; MEP-5373	392.00
VEB-4302HBDL	Valve; 1/2" 2W NPT 2.6CV; Proportional w/FS; MEP-5372	420.00
VEB-4302KBCF	Valve; 1/2" 2W NPT 4.7CV;Tri-State ; MEP-4003	260.00
VEB-4302KBCK	Valve; 1/2" 2W NPT 4.7CV;Proportional; MEP-4002	332.00
VEB-4302KBDH	Valve; 1/2" 2W NPT 4.7CV; Tri-State w/FS; MEP-5373	392.00
VEB-4302KBDL	Valve; 1/2" 2W NPT 4.7CV; Proportional w/FS; MEP-5372	420.00
VEB-4302MBCF	Valve; 1/2" 2W NPT 11.7CV;Tri-State ; MEP-4003	260.00
VEB-4302MBCK	Valve; 1/2" 2W NPT 11.7CV;Proportional; MEP-4002	332.00
VEB-4302MBDH	Valve; 1/2" 2W NPT11.7CV;Tri-State w/FS; MEP-5373	392.00
VEB-4302MBDL	Valve; 1/2" 2W NPT 11.7CV; Proportional w/FS; MEP-5372	420.00
VEB-4303GBCF	Valve; 3/4" 2W NPT 2.4Cv; Tri-State ; MEP-4003	276.00
VEB-4303GBCK	Valve; 3/4" 2W NPT 2.4 Cv; Proportional; MEP-4002	356.00
VEB-4303GBDH	Valve; 3/4" 2W NPT 2.4 Cv; Tri- State w/FS; MEP-5373	420.00
VEB-4303GBDL	Valve; 3/4" 2W NPT 2.4 Cv; Proportional w/FS; MEP-5372	450.00
VEB-4303KBCF	Valve; 3/4" 2W NPT 4.3CV;Tri-State ; MEP-4003	276.00
VEB-4303KBCK	Valve; 3/4" 2W NPT 4.3CV;Proportional; MEP-4002	356.00
VEB-4303KBDH	Valve; 3/4" 2W NPT 4.3CV; Tri-State w/FS; MEP-5373	420.00
VEB-4303KBDL	Valve; 3/4" 2W NPT 4.3CV; Proportional w/FS; MEP-5372	450.00
VEB-4303LBCF	Valve; 3/4" 2W NPT 10.1CV;Tri-State ; MEP-4003	276.00
VEB-4303LBCK	Valve; 3/4" 2W NPT 10.1CV;Proportional; MEP-4002	356.00
VEB-4303LBDH	Valve; 3/4" 2W NPT10.1Cv; Tri-State w/FS; MEP-5373	420.00
VEB-4303LBDL	Valve; 3/4" 2W NPT 10.1Cv; Proportional w/FS; MEP-5372	450.00
VEB-4303NB CF	Valve; 3/4" 2W NPT 14.7CV;Tri-State ; MEP-4003	276.00
VEB-4303NBCK	Valve; 3/4" 2W NPT 14.7Cv; Proportional; MEP-4002	356.00
VEB-4303NBDH	Valve; 3/4" 2W NPT14.7Cv; Tri-State w/FS; MEP-5373	420.00
VEB-4303NBDL	Valve; 3/4" 2W NPT 14.7Cv; Proportional w/FS; MEP-5372	450.00
VEB-4303XSDL	Valve; 3/4" 2W NPT SS 2.9 Cv; Proportional w/FS; MEP-5372	580.00
VEB-4303YSDL	Valve; 3/4" 2W NPT SS 5.3 Cv; Proportional w/FS; MEP-5372	580.00
VEB-4303ZSDL	Valve; 3/4" 2W NPT SS 11 Cv; Proportional w/FS; MEP-5372	580.00
VEB-4304JBCF	Valve; 1" 2W NPT 9.0CV;Tri-State ; MEP-4003	316.00
VEB-4304JBCK	Valve; 1" 2W NPT 9.0CV;Proportional; MEP-4002	390.00
VEB-4304JBDH	Valve; 1" 2W NPT 9.01Cv; Tri-State w/FS; MEP-5373	566.00
VEB-4304JBDL	Valve; 1" 2W NPT 9.0Cv; Proportional w/FS; MEP-5372	580.00
VEB-4304MBCF	Valve; 1" 2W NPT 15.3Cv; Tri-State ; MEP-4003	316.00
VEB-4304MBCK	Valve; 1" 2W NPT 15.3Cv; Proportional; MEP-4002	390.00
VEB-4304MBDH	Valve; 1"2 W NPT 15.3Cv; Tri-State w/FS; MEP-5373	566.00
VEB-4304MBDL	Valve; 1" 2W NPT 15.3Cv; Proportional w/FS; MEP-5372	580.00
VEB-4304QBCF	Valve; 1" 2W NPT 28.4Cv; Tri-State ; MEP-4003	316.00
VEB-4304QBCK	Valve; 1" 2W NPT 28.4Cv; Proportional; MEP-4002	390.00
VEB-4304QBDH	Valve; 1" 2W NPT 28.4Cv; Tri-State w/FS; MEP-5373	566.00
VEB-4304QBDL	Valve; 1" 2W NPT 28.4Cv; Proportional w/FS; MEP-5372	580.00
VEB-4305FBCF	Valve; 1-1/4" 2W NPT 14.9CV;Tri-State ; MEP-4003	395.00
VEB-4305FBCK	Valve; 1 1/4" 2W NPT 14.9CV;Proportional; MEP-4002	504.00
VEB-4305FBDH	Valve; 1-1/4" 2W NPT 14.9Cv; Tri-State w/FS; MEP-5373	667.00



Price List

Part Number	Description	List Price (Each)
VEB-4305FBDL	Valve; 1-1/4" 2W NPT 14.9Cv; Proportional w/FS; MEP-5372	715.00
VEB-4305KBCF	Valve; 1-1/4" 2W NPT 36.5CV;Tri-State ; MEP-4003	395.00
VEB-4305KBCK	Valve; 1 1/4" 2W NPT 36.5CV;Proportional; MEP-4002	504.00
VEB-4305KBDH	Valve; 1-1/4" 2W NPT 36.5Cv; Tri-State w/FS; MEP-5373	667.00
VEB-4305KBDL	Valve; 1-1/4" 2W NPT 36.5Cv; Proportional w/FS; MEP-5372	715.00
VEB-4305LBCF	Valve; 1-1/4" 2W NPT 41.1CV;Tri-State ; MEP-4003	395.00
VEB-4305LBCK	Valve; 1 1/4" 2W NPT 41.1CV;Proportional; MEP-4002	504.00
VEB-4305LBDH	Valve; 1-1/4" 2W NPT 41.1Cv; Tri-State w/FS; MEP-5373	667.00
VEB-4305LBDL	Valve; 1-1/4" 2W NPT 41.1Cv; Proportional w/FS; MEP-5372	715.00
VEB-4306DBCf	Valve; 1-1/2" 2W NPT 22.8CV;Tri-State ; MEP-4003	420.00
VEB-4306DBCK	Valve; 1 1/2" 2W NPT 22.8CV;Proportional; MEP-4002	543.00
VEB-4306DBDH	Valve; 1-1/2" 2W NPT 22.8CV;Tri-State w/FS; MEP-5373	712.00
VEB-4306DBDL	Valve; 1-1/2" 2W NPT 22.8CV; Proportional w/FS; MEP-5372	808.00
VEB-4306GBCF	Valve; 1-1/2" 2W NPT 41.3CV;Tri-State ; MEP-4003	420.00
VEB-4306GBCK	Valve; 1 1/2" 2W NPT 41.3CV;Proportional; MEP-4002	543.00
VEB-4306GBDH	Valve; 1-1/2" 2W NPT 41.3CV;Tri-State w/FS; MEP-5373	712.00
VEB-4306GBDL	Valve; 1-1/2" 2W NPT 41.3CV; Proportional w/FS; MEP-5372	808.00
VEB-4306JBCF	Valve; 1-1/2" 2W NPT 73.9CV;Tri-State ; MEP-4003	420.00
VEB-4306JBCK	Valve; 1 1/2" 2W NPT 73.9CV; Proportional; MEP-4002	543.00
VEB-4306JBDH	Valve; 1-1/2" 2W NPT 73.9CV; Tri-State w/FS; MEP-5373	712.00
VEB-4306JBDL	Valve; 1-1/2" 2W NPT 73.9CV; Proportional w/FS; MEP-5372	808.00
VEB-4308DBCf	Valve; 2" 2W NPT 41.7CV;Tri-State ; MEP-4003	749.00
VEB-4308DBCK	Valve; 2" 2W NPT 41.7CV;Proportional MEP-4002	941.00
VEB-4308DBDH	Valve; 2" 2W NPT 41.7CV; Tri-State w/FS; MEP-5373	991.00
VEB-4308DBDL	Valve; 2" 2W NPT 41.7CV; Proportional w/FS; MEP-5372	1037.00
VEB-4308GBCF	Valve; 2" 2W NPT 71.1CV;Tri-State ; MEP-4003	749.00
VEB-4308GBCK	Valve; 2" 2W NPT 71.1CV;Proportional; MEP-4002	941.00
VEB-4308GBDH	Valve; 2" 2W NPT 71.1CV; Tri-State w/FS; MEP-5373	991.00
VEB-4308GBDL	Valve; 2" 2W NPT 71.1CV; Proportional w/FS; MEP-5372	1037.00
VEB-4308MBCF	Valve; 2" 2W NPT 108.0 CV;Tri-State ; MEP-4003	749.00
VEB-4308MBCK	Valve; 2" 2W NPT 108.0 CV;Proportional; MEP-4002	941.00
VEB-4308MBDH	Valve; 2" 2W NPT 108.0 CV; Tri-State w/FS; MEP-5373	991.00
VEB-4308MBDL	Valve; 2" 2W NPT 108.0 CV; Proportional w/FS; MEP-5372	1037.00
VEB-4310CBCF	Valve; 2-1/2" 2W NPT 55.0 CV;Tri-State ; MEP-4003	940.00
VEB-4310CBCK	Valve; 2-1/2" 2W NPT 55.0 CV;Proportional; MEP-4002	1140.00
VEB-4310CBDH	Valve; 2-1/2" 2W NPT 55.0 CV; Tri-State w/FS; MEP-5373	1250.00
VEB-4310CBDL	Valve; 2-1/2" 2W NPT 55.0 CV; Proportional w/FS; MEP-5372	1270.00
VEB-4310DBCf	Valve; 2-1/2" 2W NPT 72.0 CV;Tri-State ; MEP-4003	940.00
VEB-4310DBCK	Valve; 2-1/2" 2W NPT 72.0CV;Proportional; MEP-4002	1140.00
VEB-4310DBDH	Valve; 2-1/2" 2W NPT 72.0 CV; Tri-State w/FS; MEP-5373	1250.00
VEB-4310DBDL	Valve; 2-1/2" 2W NPT 72.0 CV; Proportional w/FS; MEP-5372	1270.00
VEB-4310GBCF	Valve; 2-1/2" 2W NPT 101.0 CV;Tri-State ; MEP-4003	940.00
VEB-4310GBCK	Valve; 2-1/2" 2W NPT 101.0CV;Proportional; MEP-4002	1140.00
VEB-4310GBDH	Valve; 2-1/2" 2W NPT 101.0 CV; Tri-State w/FS; MEP-5373	1250.00
VEB-4310GBDL	Valve; 2-1/2" 2W NPT 101.0 CV; Proportional w/FS; MEP-5372	1270.00
VEB-4312CBCF	Valve; 3" 2W NPT 82.0 CV;Tri-State ; MEP-4003	1110.00
VEB-4312CBCK	Valve; 3" 2W NPT 82.0CV;Proportional; MEP-4002	1300.00
VEB-4312CBDH	Valve; 3" 2W NPT 82.0 CV; Tri-State w/FS; MEP-5373	1420.00
VEB-4312CBDL	Valve; 3" 2W NPT 82.0 CV; Proportional w/FS; MEP-5372	1440.00
VEB-4312DBCf	Valve; 3" 2W NPT 124.0 CV;Tri-State ; MEP-4003	1110.00
VEB-4312DBCK	Valve; 3" 2W NPT 124.0CV;Proportional; MEP-4002	1300.00
VEB-4312DBDH	Valve; 3" 2W NPT 124.0 CV; Tri-State w/FS; MEP-5373	1420.00
VEB-4312DBDL	Valve; 3" 2W NPT 124.0 CV; Proportional w/FS; MEP-5372	1440.00
VEB-4602CBCF	Valve; 1/2" 3W NPT.6CV; Tri-State ; MEP-4003	280.00
VEB-4602CBCK	Valve; 1/2" 3W NPT .6CV; Proportional; MEP-4002	392.00
VEB-4602CBDH	Valve; 1/2"3 W NPT.6CV; Tri-State w/FS; MEP-5373	460.00
VEB-4602CBDL	Valve; 1/2" 3W NPT.6CV; Proportional w/FS; MEP-5372	490.00
VEB-4602EBCF	Valve; 1/2" 3W NPT1.0CV;Tri-State ; MEP-4003	280.00
VEB-4602EBCK	Valve; 1/2" 3W NPT 1.0CV; Proportional; MEP-4002	392.00
VEB-4602EBDH	Valve; 1/2"3W NPT1.0CV; Tri-State w/FS; MEP-5373	460.00
VEB-4602EBDL	Valve; 1/2" 3W NPT 1.0CV; Proportional w/FS; MEP-5372	490.00
VEB-4602GBCF	Valve; 1/2" 3W NPT2.4CV;Tri-State ; MEP-4003	280.00
VEB-4602GBCK	Valve; 1/2" 3W NPT 2.4CV;Proportional; MEP-4002	392.00
VEB-4602GBDH	Valve; 1/2"3W NPT2.4CV; Tri-State w/FS; MEP-5373	460.00



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Part Number	Description	List Price (Each)
VEB-4602GBDL	Valve; 1/2" 3W NPT 2.4CV; Proportional w/FS; MEP-5372	490.00
VEB-4602JBCF	Valve, 1/2" 3W NPT4.3CV;Tri-State ; MEP-4003	280.00
VEB-4602JBCK	Valve, 1/2" 3W NPT 4.3CV;Proportional; MEP-4002	392.00
VEB-4602JBDH	Valve, 1/2"3W NPT4.3CV; Tri-State w/FS; MEP-5373	460.00
VEB-4602JBDL	Valve, 1/2" 3W NPT 4.3CV; Proportional w/FS; MEP-5372	490.00
VEB-4602LBCF	Valve, 1/2" 3W NPT 8.0CV;Tri-State ; MEP-4003	280.00
VEB-4602LBCK	Valve; 1/2" 3W NPT 8.0CV;Proportional; MEP-4002	392.00
VEB-4602LBDH	Valve, 1/2"3W NPT8.0CV; Tri-State w/FS; MEP-5373	460.00
VEB-4602LBDL	Valve, 1/2" 3W NPT 8.0CV; Proportional w/FS; MEP-5372	490.00
VEB-4603GBCF	Valve, 3/4" 3W NPT 2.4CV; Tri-State; MEP-4003	340.00
VEB-4603GBCK	Valve, 3/4" 3W NPT 2.4CV; Proportional; MEP-4002	450.00
VEB-4603GBDH	Valve, 3/4"3W NPT2.4CV; Tri-State w/FS; MEP-5373	504.00
VEB-4603GBDL	Valve, 3/4" 3W NPT 2.4CV; Proportional w/FS; MEP-5372	536.00
VEB-4603JBCF	Valve, 3/4" 3W NPT 3.8CV; Tri-State; MEP-4003	340.00
VEB-4603JBCK	Valve, 3/4" 3W NPT 3.8CV; Proportional; MEP-4002	450.00
VEB-4603JBDH	Valve, 3/4"3W NPT3.8CV; Tri-State w/FS; MEP-5373	504.00
VEB-4603JBDL	Valve, 3/4" 3W NPT 3.8CV; Proportional w/FS; MEP-5372	536.00
VEB-4603MBCF	Valve, 3/4" 3W NPT11.0CV; Tri-State; MEP-4003	340.00
VEB-4603MBCK	Valve, 3/4" 3W NPT 11.0CV; Proportional; MEP-4002	450.00
VEB-4603MBDH	Valve, 3/4"3W NPT11.0CV; Tri-State w/FS; MEP-5373	504.00
VEB-4603MBDL	Valve, 3/4" 3W NPT11.0CV; Proportional w/FS; MEP-5372	536.00
VEB-4604HBCF	Valve, 1" 3W NPT 8.6CV; Tri-State; MEP-4003	412.00
VEB-4604HBCK	Valve, 1" 3W NPT 8.6CV; Proportional; MEP-4002	520.00
VEB-4604HBDH	Valve, 1" 3W NPT 8.6CV; Tri-State w/FS; MEP-5373	570.00
VEB-4604HBDL	Valve, 1" 3W NPT 8.6CV; Proportional w/FS; MEP-5372	604.00
VEB-4604NBCF	Valve, 1" 3W NPT 22.3CV; Tri-State; MEP-4003	412.00
VEB-4604NBCK	Valve, 1" 3W NPT 22.3CV; Proportional; MEP-4002	520.00
VEB-4604NBDH	Valve, 1" 3W NPT22.3CV; Tri-State w/FS; MEP-5373	570.00
VEB-4604NBDL	Valve, 1" 3W NPT 22.3CV; Proportional w/FS; MEP-5372	604.00
VEB-4605EBCF	Valve, 1-1/4"3W NPT12.7CV; Tri-State; MEP-4003	540.00
VEB-4605EBCK	Valve, 1-1/4" 3W NPT12.7CV; Proportional; MEP-4002	640.00
VEB-4605EBDH	Valve, 1-1/4"3W NPT12.7CV; Tri-State w/FS; MEP-5373	720.00
VEB-4605EBDL	Valve, 1-1/4"3W NPT12.7CV; Proportional w/FS; MEP-5372	848.00
VEB-4605JBCF	Valve; 1-1/4"3W NPT34.1CV; Tri-State; MEP-4003	540.00
VEB-4605JBCK	Valve, 1-1/4" 3W NPT34.1CV; Proportional; MEP-4002	640.00
VEB-4605JBDH	Valve, 1-1/4"3W NPT34.1CV; Tri-State w/FS; MEP-5373	720.00
VEB-4605JBDL	Valve, 1-1/4"3W NPT34.1CV; Proportional w/FS; MEP-5372	848.00
VEB-4606EBCF	Valve, 1-1/2"3W NPT23.5CV; Tri-State; MEP-4003	624.00
VEB-4606EBCK	Valve, 1-1/2" 3W NPT23.5CV; Proportional; MEP-4002	760.00
VEB-4606EBDH	Valve, 1-1/2"3W NPT23.5CV; Tri-State w/FS; MEP-5373	950.00
VEB-4606EBDL	Valve, 1-1/2"3W NPT23.5CV; Proportional w/FS; MEP-5372	996.00
VEB-4606HBCF	Valve, 1-1/2"3W NPT61.1CV;Tri-State; MEP-4003	624.00
VEB-4606HBCK	Valve; 1-1/2" 3W NPT61.1CV;Proportional; MEP-4002	760.00
VEB-4606HBDH	Valve, 1-1/2"3W NPT61.1CV; Tri-State w/FS; MEP-5373	950.00
VEB-4606HBDL	Valve, 1-1/2"3W NPT61.1CV; Proportional w/FS; MEP-5372	996.00
VEB-4608BBCF	Valve, 2" 3W NPT 38.2CV;Tri-State; MEP-4003	840.00
VEB-4608BBCK	Valve, 2" 3W NPT 38.2CV; Proportional; MEP-4002	946.00
VEB-4608BBDH	Valve, 2" 3W NPT38.2CV; Tri-State w/FS; MEP-5373	1282.00
VEB-4608BBDL	Valve, 2" 3W NPT 38.2CV; Proportional w/FS; MEP-5372	1328.00
VEB-4608NBCF	Valve, 2" 3W NPT 108.5CV;Tri-State; MEP-4003	840.00
VEB-4608NBCK	Valve, 2" 3W NPT 108.5CV; Proportional; MEP-4002	960.00
VEB-4608NBDH	Valve, 2" 3W NPT108.5CV; Tri-State w/FS; MEP-5373	1282.00
VEB-4608NBDL	Valve, 2" 3W NPT 108.5CV; Proportional w/FS; MEP-5372	1328.00
VEB-4610EBCF	Valve, 2-1/2" 3W NPT 74.1CV;Tri-State; MEP-4003	924.00
VEB-4610EBCK	Valve, 2-1/2" 3W NPT 74.1CV; Proportional; MEP-4002	1056.00
VEB-4610EBDH	Valve, 2-1/2" 3W NPT74.1CV; Tri-State w/FS; MEP-5373	1410.00
VEB-4610EBDL	Valve, 2-1/2" 3W NPT 74.1CV; Proportional w/FS; MEP-5372	1460.00
VEB-4610FBCF	Valve, 2-1/2" 3W NPT 99.5CV;Tri-State; MEP-4003	924.00
VEB-4610FBCK	Valve, 2-1/2" 3W NPT 99.5CV; Proportional; MEP-4002	1056.00
VEB-4610FBDH	Valve, 2-1/2" 3W NPT99.5CV; Tri-State w/FS; MEP-5373	1410.00
VEB-4610FBDL	Valve, 2-1/2" 3W NPT 99.5CV; Proportional w/FS; MEP-5372	1460.00
VEB-5316ASFF	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 91, MEP-7201, Tri-State	2335.55
VEB-5316ASFH	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 91, MEP-7251, Tri-State Failsafe	2497.70
VEB-5316ASFK	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 91, MEP-7202, Proportional	2467.07

Price List



Part Number	Description	List Price (Each)
VEB-5316ASFL	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 91, MEP-7252, Proportional Failsafe	2610.02
VEB-5316BSFF	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 118, MEP-7201, Tri-State	2335.55
VEB-5316BSFH	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 118, MEP-7251, Tri-State Failsafe	2497.70
VEB-5316BSFK	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 118, MEP-7202, Proportional VDC	2467.07
VEB-5316BSFL	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 118, MEP-7252, Proportional Failsafe	2610.02
VEB-5316CSFF	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 152, MEP-7201, Tri-State	2335.55
VEB-5316CSFH	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 152, MEP-7251, Tri-State Failsafe	2497.70
VEB-5316CSFK	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 152, MEP-7202, Proportional	2467.07
VEB-5316CSFL	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 152, MEP-7252, Proportional Failsafe	2610.02
VEB-5316DSFF	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 197, MEP-7201, Tri-State	2335.55
VEB-5316DSFH	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 197, MEP-7251, Tri-State Failsafe	2497.70
VEB-5316DSFK	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 197, MEP-7202, Proportional	2467.07
VEB-5316DSFL	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 197, MEP-7252, Proportional Failsafe	2610.02
VEB-5316ESFF	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 254, MEP-7201, Tri-State	2335.55
VEB-5316ESFH	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 254, MEP-7251, Tri-State Failsafe	2497.70
VEB-5316ESFK	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 254, MEP-7202, Proportional	2467.07
VEB-5316ESFL	Valve; 4", 2-Way Flanged Ball Vlv, Cv = 254, MEP-7252, Proportional Failsafe	2610.02
VEB-5320ASFF	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 144, MEP-7201, Tri-State	3703.06
VEB-5320ASFH	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 144, MEP-7251, Tri-State Failsafe	3866.21
VEB-5320ASFK	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 144, MEP-7202, Proportional	3741.46
VEB-5320ASFL	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 144, MEP-7252, Proportional Failsafe	3978.53
VEB-5320BSFF	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 185, MEP-7201, Tri-State	3703.06
VEB-5320BSFH	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 185, MEP-7251, Tri-State Failsafe	3866.21
VEB-5320BSFK	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 185, MEP-7202, Proportional	3741.46
VEB-5320BSFL	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 185, MEP-7252, Proportional Failsafe	3978.53
VEB-5320CSFF	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 240, MEP-7201, Tri-State	3703.06
VEB-5320CSFH	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 240, MEP-7251, Tri-State Failsafe	3866.21
VEB-5320CSFK	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 240, MEP-7202, Proportional	3741.46
VEB-5320CSFL	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 240, MEP-7252, Proportional Failsafe	3978.53
VEB-5320DSFF	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 309, MEP-7201, Tri-State	3703.06
VEB-5320DSFH	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 309, MEP-7251, Tri-State Failsafe	3866.21
VEB-5320DSFK	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 309, MEP-7202, Proportional	3741.46
VEB-5320DSFL	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 309, MEP-7252, Proportional Failsafe	3978.53
VEB-5320ESFF	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 400, MEP-7201, Tri-State	3703.06
VEB-5320ESFH	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 400, MEP-7251, Tri-State Failsafe	3866.21
VEB-5320ESFK	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 400, MEP-7202, Proportional	3741.46
VEB-5320ESFL	Valve; 5", 2-Way Flanged Ball Vlv, Cv = 400, MEP-7252, Proportional Failsafe	3978.53
VEB-5324ASGF	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 208, MEP-7501, Tri-State	4108.46
VEB-5324ASGH	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 208, MEP-7551, Tri-State Failsafe	4375.44
VEB-5324ASGK	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 208, MEP-7502, Proportional	4250.54
VEB-5324ASGL	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 208, MEP-7552, Proportional Failsafe	4417.68
VEB-5324BSGF	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 268, MEP-7501, Tri-State	4108.46
VEB-5324BSGH	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 268, MEP-7551, Tri-State Failsafe	4375.44
VEB-5324BSGK	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 268, MEP-7502, Proportional	4250.54
VEB-5324BSGL	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 268, MEP-7552, Proportional Failsafe	4417.68
VEB-5324CSGF	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 346, MEP-7501, Tri-State	4108.46
VEB-5324CSGH	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 346, MEP-7551, Tri-State Failsafe	4375.44
VEB-5324CSGK	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 346, MEP-7502, Proportional	4250.54
VEB-5324CSGL	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 346, MEP-7552, Proportional Failsafe	4417.68
VEB-5324DSGF	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 441, MEP-7501, Tri-State	4108.46
VEB-5324DSGH	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 441, MEP-7551, Tri-State Failsafe	4375.44
VEB-5324DSGK	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 441, MEP-7502, Proportional	4250.54
VEB-5324DSGL	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 441, MEP-7552, Proportional Failsafe	4417.68
VEB-5324ESGF	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 577, MEP-7501, Tri-State	4108.46
VEB-5324ESGH	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 577, MEP-7551, Tri-State Failsafe	4375.44
VEB-5324ESGK	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 577, MEP-7502, Proportional	4250.54
VEB-5324ESGL	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 577, MEP-7552, Proportional Failsafe	4417.68
VEB-5324FSGF	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 650, MEP-7501, Tri-State	4108.46
VEB-5324FSGH	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 650, MEP-7551, Tri-State Failsafe	4375.44
VEB-5324FSGK	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 650, MEP-7502, Proportional	4250.54
VEB-5324FSGL	Valve; 6", 2-Way Flanged Ball Vlv, Cv = 650, MEP-7552, Proportional Failsafe	4417.68
VEB-5616ASFF	Valve; 4", 3-Way Flanged Ball Vlv, Cv = 91, MEP-7201, Tri-State	2645.04
VEB-5616ASFH	Valve; 4", 3-Way Flanged Ball Vlv, Cv = 91, MEP-7251, Tri-State Failsafe	2803.45
VEB-5616ASFK	Valve; 4", 3-Way Flanged Ball Vlv, Cv = 91, MEP-7202, Proportional	2776.56



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Price List

Part Number	Description	List Price (Each)
VEB-5624FSGL	Valve; 6", 3-Way Flanged Ball Vlv, Cv = 650, MEP-7552, Proportional Failsafe	5401.54
VEC-1011	EP RELAY 24 VAC OPEN FRAME	148.97
VEC-1012	EP RELAY 120 VAC OPEN FRAME	148.97
VEC-1017	EP RELAY 24 VDC OPEN FRAME	161.74
VEC-1021	EP RELAY 24 VAC JUNCTION BOX	161.74
VEC-1022	EP RELAY 120 VAC JUNCTION BOX	161.74
VEC-1023	EP RELAY 240 VAC JUNCTION BOX	170.25
VEC-1026	EP RELAY 208 VAC JUNCTION BOX	170.25
VEC-1027	EP RELAY 24 VDC JUNCTION BOX	170.25
VEG-4302JRDH	VALVE;1/2";2W;4.6CV;MEP-5373	944.21
VEG-4302JRDL	VALVE;1/2";2W;4.6CV;MEP-5372	1156.59
VEG-4302JREF	VALVE;1/2";2W;4.6CV;MEP-4801	741.48
VEG-4302JREK	VALVE;1/2";2W;4.6CV;MEP-4802	794.14
VEG-4303DRDH	VALVE;3/4";2W;6.9CV;MEP-5373	944.21
VEG-4303DRDL	VALVE;3/4";2W;6.9CV;MEP-5372	1025.37
VEG-4303DREF	VALVE;3/4";2W;6.9CV;MEP-4801	741.48
VEG-4303DREK	VALVE;3/4";2W;6.9CV;MEP-4802	794.14
VEG-4304CRFF	VALVE;1";2W;11.6CV;MEP-7201	946.21
VEG-4304CRFH	VALVE;1";2W;11.6CV;MEP-7251	1189.31
VEG-4304CRFK	VALVE;1";2W;11.6CV;MEP-7202	1076.65
VEG-4304CRFL	VALVE;1";2W;11.6CV;MEP-7252	1319.75
VEG-4305ARFF	VLVE;1-1/4";2W;18.5CV;MEP-7201	1067.86
VEG-4305ARFH	VLVE;1-1/4";2W;18.5CV;MEP-7251	1310.98
VEG-4305ARFK	VLVE;1-1/4";2W;18.5CV;MEP-7202	1198.31
VEG-4305ARFL	VLVE;1-1/4";2W;18.5CV;MEP-7252	1441.39
VEG-4306ARFF	VLVE;1-1/2";2W;29CV;MEP-7201	1137.37
VEG-4306ARFH	VLVE;1-1/2";2W;29CV;MEP-7251	1380.45
VEG-4306ARFK	VLVE;1-1/2";2W;29CV;MEP-7202	1267.81
VEG-4306ARFL	VLVE;1-1/2";2W;29CV;MEP-7252	1510.90
VEG-4308ARFF	VLVE;2";2W;46.4 CV;MEP-7201	1265.60
VEG-4308ARFH	VALVE;2";2W;46.4CV;MEP-7251	1508.68
VEG-4308ARFK	VALVE;2";2W;46.4CV;MEP-7202	1396.03
VEG-4308ARFL	VALVE;2";2W;46.4CV;MEP-7252	1639.12
VEG-4502JRDH	VALVE;1/2";3-W;4.6CV;MEP-5373	957.94
VEG-4502JRDL	VALVE;1/2";3-W;4.6CV;MEP-5372	1039.08
VEG-4502JREF	VALVE;1/2";3-W;4.6CV;MEP-4813	755.20
VEG-4502JREK	VALVE;1/2";3-W;4.6CV;MEP-4802	807.84
VEG-4503DRDH	VALVE;3/4";3-W;6.9CV;MEP-5373	957.94
VEG-4503DRDL	VALVE;3/4";3-W;6.9CV;MEP-5372	1039.08
VEG-4503DREF	VALVE;3/4";3-W;6.9CV;MEP-4813	755.20
VEG-4503DREK	VALVE;3/4";3-W;6.9CV;MEP-4802	807.84
VEG-4504CRFF	VALVE;1";3-W;11.6CV;MEP-7201	956.07
VEG-4504CRFH	VALVE;1";3-W;11.6CV;MEP-7251	1342.03
VEG-4504CRFK	VALVE;1";3-W;11.6CV;MEP-7202	1086.52
VEG-4504CRFL	VALVE;1";3-W;11.6CV;MEP-7252	1329.60
VEG-4505ARFF	VLVE;1-1/4";3W;18.5CV;MEP-7201	1092.38
VEG-4505ARFH	VLVE;1-1/4";3W;18.5CV;MEP-7251	1335.46
VEG-4505ARFK	VLVE;1-1/4";3W;18.5CV;MEP-7202	1222.80
VEG-4505ARFL	VLVE;1-1/4";3W;18.5CV;MEP-7252	1465.90
VEG-4506ARFF	VALVE;1-1/2";3W;29CV;MEP-7201	1171.52
VEG-4506ARFH	VALVE;1-1/2";3W;29CV;MEP-7251	1202.24
VEG-4506ARFK	VALVE;1-1/2";3W;29CV;MEP-7202	1301.95
VEG-4506ARFL	VALVE;1-1/2";3W;29CV;MEP-7252	1545.04
VEG-4508ARFF	VALVE;2";3W;46.4CV;MEP-7201	1322.17
VEG-4508ARFH	VALVE;2";3W;46.4CV;MEP-7251	1565.26
VEG-4508ARFK	VALVE;2";3W;46.4CV;MEP-7202	1452.62
VEG-4508ARFL	VALVE;2";3W;46.4CV;MEP-7252	1695.70
VEP-11140186	VALVE;1/2";NO;2W;1.6 CV;24VAC	184.48
VEP-11150186	NO ST-THRU;1/2" 2.0 24 VAC	184.96
VEP-11160186	NO ST-THRU;1/2" 2.6 24 VAC	199.33
VEP-11170186	NO ST-THRU;3/4" 2.9 24 VAC	199.33
VEP-11180186	NO ST-THRU;3/4" 4.7 24 VAC	224.02
VEP-11220186	VALVE;1";NO;2W;5.0CV;24VAC	280.32
VEP-12140186	NC ST-THRU;1/2" 1.6 24 VAC	184.48



Price List

Part Number	Description	List Price (Each)
VEP-12150186	NC ST-THRU;1/2" 2.0 24 VAC	184.96
VEP-12160186	NC ST-THRU;1/2" 2.6 24 VAC	199.33
VEP-12170186	NC ST-THRU;3/4" 2.9 24 VAC	199.33
VEP-12180186	NC ST-THRU;3/4" 4.7 24 VAC	224.02
VEP-12220186	VALVE;1";NC;2W;5.0CV;24VAC	280.32
VEP-15140194	VALVE;1/2";2W;1.6CV;10-2VDC	510.37
VEP-15140195	VALVE;1/2";2W;1.6CV;2-10VDC	510.37
VEP-15140196	VALVE;1/2";2W;1.6CV;3-WIRE	425.76
VEP-15150194	VALVE;1/2";2W;2.0CV;10-2VDC	510.85
VEP-15150195	VALVE;1/2";2W;2.0CV;2-10VDC	510.85
VEP-15150196	VALVE;1/2";2W;2.0CV;3-WIRE	426.24
VEP-15160194	VALVE;1/2";2W;2.6CV;10-2VDC	525.22
VEP-15160195	VALVE;1/2";2W;2.6CV;2-10VDC	525.22
VEP-15160196	VALVE;1/2";2W;2.6CV;3-WIRE	440.61
VEP-15170194	VALVE;3/4";2W;2.9CV;10-2VDC	525.22
VEP-15170195	VALVE;3/4";2W;2.9CV;2-10VDC	525.22
VEP-15170196	VALVE;3/4";2W;2.9CV;3-WIRE	440.61
VEP-15180194	VALVE;3/4";2W;4.7CV;10-2VDC	549.90
VEP-15180195	VALVE;3/4";2W;4.7CV;2-10VDC	549.90
VEP-15180196	VALVE;3/4";2W;4.7CV;3-WIRE	465.29
VEP-15220194	VALVE;1";2W;5.0CV;10-2VDC	606.22
VEP-15220195	VALVE;1";2W;5.0CV;2-10VDC	606.22
VEP-15220196	VALVE;1";2W;5.0CV;3-WIRE	521.61
VEP-21140186	1/2";NO;2W ANG;1.6CV;24VAC	184.48
VEP-21150186	NO ANGLE BODY;1/2" 2.0 24 VAC	184.96
VEP-21160186	NO ANGLE BODY;1/2" 2.6 24 VAC	199.33
VEP-21170186	NO ANGLE BODY;3/4" 2.9 24 VAC	199.33
VEP-22140186	1/2";NC;2W ANG;1.6CV;24VAC	184.48
VEP-22150186	NC ANGLE BODY;1/2" 2.0 24 VAC	184.96
VEP-22160186	NC ANGLE BODY;1/2" 2.6 24 VAC	199.33
VEP-22170186	NC ANGLE BODY;3/4" 2.9 24 VAC	199.33
VEP-25140194	1/2";2W ANG;1.6CV;10-2VDC	510.37
VEP-25140195	1/2";2W ANG;1.6CV;2-10VDC	510.37
VEP-25140196	1/2";2W ANG;1.6CV;3-WIRE	425.76
VEP-25150194	1/2";2W ANG;2.0CV;10-2VDC	510.85
VEP-25150195	1/2";2W ANG;2.0CV;2-10VDC	510.85
VEP-25150196	1/2";2W ANG;2.0CV;3-WIRE	426.24
VEP-25160194	1/2";2W ANG;2.6CV;10-2VDC	525.22
VEP-25160195	1/2";2W ANG;2.6CV;2-10VDC	525.22
VEP-25160196	1/2";2W ANG;2.6CV;3-WIRE	440.61
VEP-25170194	3/4";2W ANG;2.9CV;10-2VDC	525.22
VEP-25170195	3/4";2W ANG;2.9CV;2-10VDC	525.22
VEP-25170196	3/4";2W ANG;2.9CV;3-WIRE	440.61
VEP-34200186	3/4" VALVE, 24 VAC	319.79
VEP-34200195	3/4";3W DIV;4.9CV;2-10VDC	726.48
VEP-34200196	3/4";3W DIV;4.9CV;3-WIRE	641.87
VEP-34210186	3-WAY;1";CV8.5,24 VAC	381.72
VEP-34210195	1";3W DIV;8.5CV;2-10VDC	788.40
VEP-34210196	1";3W DIV;8.5CV;3-WIRE	703.79
VEP-53621645	2.5"3W MIX,68Cv125#BRZ;2-10VDC	2011.91
VEP-53621656	2.5"3W M;68Cv125#BRZ;3WRE	1855.18
VEP-53621675	2.5"3W M;68Cv125#BRZ;2-10V; FS	2258.22
VEP-53621686	2.5"3W M;68Cv125#BRZ;3WRE;FS	2191.05
VEP-53621945	2.5"3W M;68Cv125#BRZ;2-10VDC	2224.63
VEP-53621956	2.5"3W M;68Cv125#BRZ;3WRE	2067.89
VEP-53621975	2.5"3W M;68Cv125#BRZ;2-10V;FS	2470.94
VEP-53621986	2.5"3W M;68Cv125#BRZ;3WRE;FS	2403.76
VEP-53622645	2.5"3W M;68Cv250#SS;2-10VDC	3043.95
VEP-53622656	2.5"3W M;68Cv250#SS;3WRE	2887.21
VEP-53622675	2.5"3W M;68Cv250#SS;2-10V;FS	3290.26
VEP-53622686	2.5"3W M;68Cv250#SS;3WRE;FS	3223.08
VEP-53622945	2.5"3W M;68Cv250#SS;2-10VDC	3256.67
VEP-53622956	2.5"3W M;68Cv250#SS;3WRE	3099.93
VEP-53622975	2.5"3W M;68Cv250#SS;2-10V;FS	3502.97



Price List

Part Number	Description	List Price (Each)
VEP-53622986	2.5"3WM;68Cv250#SS;3WRE;FS	3435.80
VEP-53623645	2.5"3WM;68Cv125#SS;2-10VDC	2921.90
VEP-53623656	2.5"3WM;68Cv125#SS;3WRE	2765.16
VEP-53623675	2.5"3WM;68Cv125#SS;2-10V;FS	3168.20
VEP-53623686	2.5"3WM;68Cv125#SS;3WRE;FS	3101.03
VEP-53623945	2.5"3WM;68Cv125#SS;2-10VDC	3134.61
VEP-53623956	2.5"3WM;68Cv125#SS;3WRE	2977.88
VEP-53623975	2.5"3WM;68Cv125#SS;2-10V;FS	3380.92
VEP-53623986	2.5"3WM;68Cv125#SS;3WRE;FS	3313.75
VEP-53624645	2.5"3WM;68Cv250#BRZ;2-10VDC	2546.79
VEP-53624656	2.5"3WM;68Cv250#BRZ;3WRE	2390.05
VEP-53624675	2.5"3WM;68Cv250#BRZ;2-10V;FS	2793.09
VEP-53624686	2.5"3WM;68Cv250#BRZ;3WRE;FS	2725.92
VEP-53624945	2.5"3WM;68Cv250#BRZ;2-10VDC	2759.50
VEP-53624956	2.5"3WM;68Cv250#BRZ;3WRE	2602.77
VEP-53624975	2.5"3WM;68Cv250#BRZ;2-10;FS	3005.81
VEP-53624986	2.5"3WM;68Cv250#BRZ;3WRE;FS	2938.63
VEP-53631645	3"3WM;91Cv125#BRZ;2-10VDC	2232.14
VEP-53631656	3"3WM;91Cv125#BRZ;3WRE	2075.41
VEP-53631675	3"3WM;91Cv125#BRZ;2-10V;FS	2478.45
VEP-53631686	3"3WM;91Cv125#BRZ;3WRE;FS	2411.27
VEP-53631945	3"3WM;91Cv125#BRZ;2-10VDC	2444.86
VEP-53631956	3"3WM;91Cv125#BRZ;3WRE	2288.12
VEP-53631975	3"3WM;91Cv125#BRZ;2-10V;FS	2691.17
VEP-53631986	3"3WM;91Cv125#BRZ;3WRE;FS	2623.99
VEP-53632645	3"3WM;91Cv250#SS;2-10VDC	3794.14
VEP-53632656	3"3WM;91Cv250#SS;3WRE	3637.40
VEP-53632675	3"3WM;91Cv250#SS;2-10V;FS	4040.44
VEP-53632686	3"3WM;91Cv250#SS;3WRE;FS	3973.27
VEP-53632945	3"3WM;91Cv250#SS;2-10VDC	4006.86
VEP-53632956	3"3WM;91Cv250#SS;3WRE	3850.12
VEP-53632975	3"3WM;91Cv250#SS;2-10V;FS	4253.16
VEP-53632986	3"3WM;91Cv250#SS;3WRE;FS	4185.99
VEP-53633645	3"3WM;91Cv125#SS;2-10VDC	3440.08
VEP-53633656	3"3WM;91Cv125#SS;3WRE	3283.34
VEP-53633675	3"3WM;91Cv125#SS;2-10V;FS	3686.38
VEP-53633686	3"3WM;91Cv125#SS;3WRE;FS	3619.21
VEP-53633945	3"3WM;91Cv125#SS;2-10VDC	3652.79
VEP-53633956	3"3WM;91Cv125#SS;3WRE	3496.06
VEP-53633975	3"3WM;91Cv125#SS;2-10VDC;FS	3899.10
VEP-53633986	3"3WM;91Cv125#SS;3WRE;FS	3838.19
VEP-53634645	3"3WM;91Cv250#BRZ;2-10VDC	2929.23
VEP-53634656	3"3WM;91Cv250#BRZ;3WRE	2772.49
VEP-53634675	3"3WM;91Cv250#BRZ;2-10V;FS	3175.53
VEP-53634686	3"3WM;91Cv250#BRZ;3WRE;FS	3108.36
VEP-53634945	3"3WM;91Cv250#BRZ;2-10VDC	3141.95
VEP-53634956	3"3WM;91Cv250#BRZ;3WRE	2985.21
VEP-53634975	3"3WM;91Cv250#BRZ;2-10V;FS	3388.25
VEP-53634986	3"3WM;91Cv250#BRZ;3WRE;FS	3321.08
VEP-53641945	4"3WM;190Cv125#BRZ;2-10VDC	2959.26
VEP-53641956	4"3WM;190Cv125#BRZ;3WRE	2802.52
VEP-53641975	4"3WM;190Cv125#BRZ;2-10V;FS	3205.56
VEP-53641986	4"3WM;190Cv125#BRZ;3WRE;FS	3138.39
VEP-53641A45	4"3WM;190Cv125#BRZ;(2)2-10VDC	3631.00
VEP-53641A56	4"3WM;190Cv125#BRZ;(2)3WRE	3317.52
VEP-53641A75	4"3WM;190Cv125#BRZ;(2)2-10V;FS	4123.61
VEP-53641A86	4"3WM;190Cv125#BRZ;(2)3WRE;FS	3989.26
VEP-53642945	4"3WM;190Cv250#SS;2-10VDC	5493.03
VEP-53642956	4"3WM;190Cv250#SS;3WRE	5336.30
VEP-53642975	4"3WM;190Cv250#SS;2-10V;FS	5739.34
VEP-53642986	4"3WM;190Cv250#SS;3WRE;FS	5672.17
VEP-53642A45	4"3WM;190Cv250#SS;(2)2-10VDC	6164.77
VEP-53642A56	4"3WM;190Cv250#SS;(2)3WRE	5851.30
VEP-53642A75	4"3WM;190Cv250#SS;(2)2-10V;FS	6657.38



Price List

Part Number	Description	List Price (Each)
VEP-53642A86	4"3WM;190Cv250#SS;(2)3WRE;FS	6523.03
VEP-53643945	4"3WM;190Cv125#SS;2-10VDC	4486.87
VEP-53643956	4"3WM;190Cv125#SS;3WRE	4330.13
VEP-53643975	4"3WM;190Cv125#SS;2-10V;FS	4733.17
VEP-53643986	4"3WM;190Cv125#SS;3WRE;FS	4666.00
VEP-53643A45	4"3WM;190Cv125#SS;(2)2-10VDC	5158.61
VEP-53643A56	4"3WM;190Cv125#SS;(2)3WRE	4845.13
VEP-53643A75	4"3WM;190Cv125#SS;(2)2-10V;FS	5651.22
VEP-53643A86	4"3WM;190Cv125#SS;(2)3WRE;FS	5516.87
VEP-53644945	4"3WM;190Cv250#BRZ;2-10VDC	4408.40
VEP-53644956	4"3WM;190Cv250#BRZ;3WRE	4251.66
VEP-53644975	4"3WM;190Cv250#BRZ;2-10V;FS	4654.70
VEP-53644986	4"3WM;190Cv250#BRZ;3WRE;FS	4587.53
VEP-53644A45	4"3WM;190Cv250#BRZ;(2)2-10VDC	5080.14
VEP-53644A56	4"3WM;190Cv250#BRZ;(2)3WRE	4766.66
VEP-53644A75	4"3WM;190Cv250#BRZ;(2)2-10V;FS	5572.75
VEP-53644A86	4"3WM;190Cv250#BRZ;(2)3WRE;FS	5438.40
VEP-53651A45	5"3WM;280Cv125#BRZ;(2)2-10VDC	4634.72
VEP-53651A56	5"3WM;280Cv125#BRZ;(2)3WRE	4321.24
VEP-53651A75	5"3WM;280Cv125#BRZ;(2)2-10V;FS	5127.33
VEP-53651A86	5"3WM;280Cv125#BRZ;(2)3WRE;FS	4992.98
VEP-53652A45	5"3WM;280Cv250#SS;(2)2-10VDC	7827.28
VEP-53652A56	5"3WM;280Cv250#SS;(2)3WRE	7513.81
VEP-53652A75	5"3WM;280Cv250#SS;(2)2-10V;FS	8319.89
VEP-53652A86	5"3WM;280Cv250#SS;(2)3WRE;FS	8185.54
VEP-53653A45	5"3WM;280Cv125#SS;(2)2-10VDC	6806.13
VEP-53653A56	5"3WM;280Cv125#SS;(2)3WIRE	6492.65
VEP-53653A75	5"3WM;280Cv125#SS;(2)2-10;FS	7298.74
VEP-53653A86	5"3WM;280Cv125#SS;(2)3WRE;FS	7164.39
VEP-53654A45	5"3WM;280Cv250#BRZ;(2)2-10VDC	6823.08
VEP-53654A56	5"3WM;280Cv250#BRZ;(2)3WRE	6509.60
VEP-53654A75	5"3WM;280Cv250#BRZ;(2)2-10V;FS	7315.69
VEP-53654A86	5"3WM;280Cv250#BRZ;(2)3WRE;FS	7181.34
VEP-53661A45	6"3WM;340Cv125#BRZ;(2)2-10VDC	5303.31
VEP-53661A56	6"3WM;340Cv125#BRZ;(2)3WRE	4989.84
VEP-53661A75	6"3WM;340Cv125#BRZ;(2)2-10V;FS	5795.92
VEP-53661A86	6"3WM;340Cv125#BRZ;(2)3WRE;FS	5661.57
VEP-53662A45	6"3WM;340Cv250#SS;(2)2-10VDC	8137.75
VEP-53662A56	6"3WM;340Cv250#SS;(2)3WRE	7824.27
VEP-53662A75	6"3WM;340Cv250#SS;(2)2-10V;FS	8630.36
VEP-53662A86	6"3WM;340Cv250#SS;(2)3WRE;FS	8496.01
VEP-53663A45	6"3WM;340Cv125#SS;(2)2-10VDC	7531.49
VEP-53663A56	6"3WM;340Cv125#SS;(2)3WRE	7218.02
VEP-53663A75	6"3WM;340Cv125#SS;(2)2-10V;FS	8024.10
VEP-53663A86	6"3WM;340Cv125#SS;(2)3WRE;FS	7889.76
VEP-53664A45	6"3WM;340Cv250#BRZ;(2)2-10VDC	8258.14
VEP-53664A56	6"3WM;340Cv250#BRZ;(2)3WRE	7944.66
VEP-53664A75	6"3WM;340Cv250#BRZ;(2)2-10V;FS	8750.75
VEP-53664A86	6"3WM;340Cv250#BRZ;(2)3WRE;FS	8616.40
VEP-54531645	2.5"3WD;68/75CV125#BRZ;2-10VDC	3280.24
VEP-54531656	2.5"3WD;68/75CV125#BRZ;3WRE	3123.50
VEP-54531675	2.5"3WD;68/75CV125#BRZ;2-10VFS	3526.54
VEP-54531686	2.5"3WD;68/75CV125#BRZ;3WRE;FS	3459.37
VEP-54532645	2.5"3WD;68/75CV250#SS;2-10VDC	5901.00
VEP-54532656	2.5"3WD;68/75CV250#SS;3WRE	5744.27
VEP-54532675	2.5"3WD;68/75CV250#SS;2-10V;FS	6147.31
VEP-54532686	2.5"3WD;68/75CV250#SS;3WRE;FS	6080.13
VEP-54533645	2.5"3WD;68/75CV125#SS;2-10VDC	4885.33
VEP-54533656	2.5"3WD;68/75CV125#SS;3WIRE	4728.60
VEP-54533675	2.5"3WD;68/75CV125#SS;2-10V;FS	5131.64
VEP-54533686	2.5"3WD;68/75CV125#SS;3WRE;FS	5064.47
VEP-54541645	3"3WD;85/95CV125#BRZ;2-10VDC	3679.34
VEP-54541656	3"3WD;85/95CV125#BRZ;3WRE	3522.60
VEP-54541675	3"3WD;85/95CV125#BRZ;2-10V;FS	3925.64



Price List

Part Number	Description	List Price (Each)
VEP-54541686	3"3WD;85/95CV125#BRZ;3WRE;FS	3858.47
VEP-54542645	3"3WD;85/95CV250#SS;2-10VDC	6741.13
VEP-54542656	3"3WD;85/95CV250#SS;3WRE	6584.39
VEP-54542675	3"3WD;85/95CV250#SS;2-10VDC;FS	6987.43
VEP-54542686	3"3WD;85/95CV250#SS;3WRE;FS	6920.26
VEP-54543645	3"3WD;85/95CV125#SS;2-10VDC	5556.18
VEP-54543656	3"3WD;85/95CV125#SS;3WRE	5399.44
VEP-54543675	3"3WD;85/95CV125#SS;2-10V;FS	5802.48
VEP-54543686	3"3WD;85/95CV125#SS;3WRE;FS	5735.31
VEP-54551645	4"3WD;154/165CV125#BRZ;2-10VDC	4219.20
VEP-54551656	4"3WD;154/165CV125#BRZ;3WRE	4062.47
VEP-54551675	4"3WD;154/165CV125#BRZ;2-10VFS	4465.51
VEP-54551686	4"3WD;154/165CV125#BRZ;3WRE;FS	4398.34
VEP-54552645	4"3WD;154/165CV250#SS;2-10VDC	7832.03
VEP-54552656	4"3WD;154/165CV250#SS;3WRE	7708.88
VEP-54552675	4"3WD;154/165CV250#SS;2-10V;FS	8078.33
VEP-54552686	4"3WD;154/165CV250#SS;3WRE;FS	8011.16
VEP-54553645	4"3WD;154/165CV125#SS;2-10VDC	6605.09
VEP-54553656	4"3WD;154/165CV125#SS;3WRE	6448.35
VEP-54553675	4"3WD;154/165CV125#SS;2-10V;FS	6851.39
VEP-54553686	4"3WD;154/165CV125#SS;3WRE;FS	6784.22
VEP-54581945	5"3WD;195/220CV125#BRZ;2-10VDC	5406.22
VEP-54581956	5"3WD;195/220CV125#BRZ;3WRE	5305.46
VEP-54581975	5"3WD;195/220CV125#BRZ;2-10VFS	5708.51
VEP-54581986	5"3WD;195/220CV125#BRZ;3WRE;FS	5641.33
VEP-54582945	5"3WD;195/220CV250#SS;2-10VDC	10445.99
VEP-54582956	5"3WD;195/220CV250#SS;3WRE	10289.25
VEP-54582975	5"3WD;195/220CV250#SS;2-10V;FS	10692.30
VEP-54582986	5"3WD;195/220CV250#SS;3WRE;FS	10625.12
VEP-54583945	5"3WD;195/220CV125#SS;2-10VDC	9391.60
VEP-54583956	5"3WD;195/220CV125#SS;3WRE	9234.86
VEP-54583975	5"3WD;195/220CV125#SS;2-10V;FS	9637.90
VEP-54583986	5"3WD;195/220CV125#SS;3WRE;FS	9570.73
VEP-54591945	6"3WD;248/275;125#BRZ;2-10VDC	6909.96
VEP-54591956	6"3WD;248/275;125#BRZ;3WRE	6753.22
VEP-54591975	6"3WD;248/275;125#BRZ;2-10V;FS	7156.26
VEP-54591986	6"3WD;248/275;125#BRZ;3WRE;FS	7089.09
VEP-54592945	6"3WD;248/275;250#SS;2-10VDC	13555.70
VEP-54592956	6"3WD;248/275;250#SS;3WRE	13398.96
VEP-54592975	6"3WD;248/275;250#SS;2-10V;FS	13802.00
VEP-54592986	6"3WD;248/275;250#SS;3WRE;FS	13734.83
VEP-54593945	6"3WD;248/275;125#SS;2-10VDC	10596.89
VEP-54593956	6"3WD;248/275;125#SS;3WRE	10440.15
VEP-54593975	6"3WD;248/275;125#SS;2-10V;FS	10843.19
VEP-54593986	6"3WD;248/275;125#SS;3WRE;FS	10776.02
VEP-55501645	2.5"2WDS;70CV125#BRZ;2-10VDC	2241.84
VEP-55501656	2.5"2WDS;70CV125#BRZ;3WRE	2085.10
VEP-55501675	2.5"2WDS;70CV125#BRZ;2-10V;FS	2488.14
VEP-55501686	2.5"2WDS;70CV125#BRZ;3WRE;FS	2420.97
VEP-55502645	2.5"2WDS;70CV250#SS;2-10VDC	3250.65
VEP-55502656	2.5"2WDS;70CV250#SS;3WRE	3093.91
VEP-55502675	2.5"2WDS;70CV250#SS;2-10V;FS	3496.95
VEP-55502686	2.5"2WDS;70CV250#SS;3WRE;FS	3429.78
VEP-55503645	2.5"2WDS;70CV125#SS;2-10VDC	3383.61
VEP-55503656	2.5"2WDS;70CV125#SS;3WRE	3226.87
VEP-55503675	2.5"2WDS;70CV125#SS;2-10V;FS	3629.91
VEP-55503686	2.5"2WDS;70CV125#SS;3WRE;FS	3562.74
VEP-55511645	3"2WDS;100CV125#BRZ;2-10VDC	2474.21
VEP-55511656	3"2WDS;100CV125#BRZ;3WRE	2317.47
VEP-55511675	3"2WDS;100CV125#BRZ;2-10V;FS	2720.51
VEP-55511686	3"2WDS;100CV125#BRZ;3WRE;FS	2653.34
VEP-55512645	3"2WDS;100CV250#SS;2-10VDC	3704.51
VEP-55512656	3"2WDS;100CV250#SS;3WRE	3547.77
VEP-55512675	3"2WDS;100CV250#SS;2-10V;FS	3950.81



Price List

Part Number	Description	List Price (Each)
VEP-55512686	3"2WDS;100CV250#SS;3WRE;FS	3883.64
VEP-55513645	3"2WDS;100CV125#SS;2-10VDC	3719.32
VEP-55513656	3"2WDS;100CV125#SS;3WRE	3562.58
VEP-55513675	3"2WDS;100CV125#SS;2-10V;FS	3965.62
VEP-55513686	3"2WDS;100CV125#SS;3WRE;FS	3898.45
VEP-55521645	4"2WDS;200CV125#BRZ;2-10VDC	2971.07
VEP-55521656	4"2WDS;200CV125#BRZ;3WRE	2814.33
VEP-55521675	4"2WDS;200CV125#BRZ;2-10V;FS	3217.37
VEP-55521686	4"2WDS;200CV125#BRZ;3WRE;FS	3150.20
VEP-55522645	4"2WDS;200CV250#SS;2-10VDC	4562.86
VEP-55522656	4"2WDS;200CV250#SS;3WRE	4406.12
VEP-55522675	4"2WDS;200CV250#SS;2-10V;FS	4809.16
VEP-55522686	4"2WDS;200CV250#SS;3WRE;FS	4741.99
VEP-55523645	4"2WDS;200CV250#SS;2-10VDC	4638.88
VEP-55523656	4"2WDS;200CV125#SS;3WRE	4482.15
VEP-55523675	4"2WDS;200CV125#SS;2-10V;FS	4885.19
VEP-55523686	4"2WDS;200CV125#SS;WRE;FS	4818.02
VEP-55561945	5"2WDS;260CV125#BRZ;2-10VDC	4995.77
VEP-55561975	5"2WDS;260CV125#BRZ;2-10V;FS	5242.07
VEP-55561986	5"2WDS;260CV125#BRZ;3WRE;FS	5174.90
VEP-55562945	5"2WDS;260CV250#SS;2-10VDC	7803.65
VEP-55562956	5"2WDS;260CV250#SS;3WRE	7646.91
VEP-55562975	5"2WDS;260CV250#SS;2-10V;FS	8049.95
VEP-55562986	5"2WDS;260CV250#SS;3WRE;FS	7982.78
VEP-55563945	5"2WDS;260CV125#SS;2-10VDC	6792.45
VEP-55563956	5"2WDS;260CV125#SS;3WRE	6635.71
VEP-55563975	5"2WDS;260CV125#SS;2-10V;FS	7038.75
VEP-55563986	5"2WDS;260CV125#SS;3WRE;FS	6971.58
VEP-55571945	6"2WDS;350;125#BRZ;2-10VDC	5027.53
VEP-55571956	6"2WDS;350;125#BRZ;3WRE	4870.79
VEP-55571975	6"2WDS;350;125#BRZ;2-10V;FS	5273.84
VEP-55571986	6"2WDS;350;125#BRZ;3WRE;FS	5206.66
VEP-55572945	6"2WDS;350;250#SS;2-10VDC	7195.04
VEP-55572956	6"2WDS;350;250#SS;3WRE	7038.30
VEP-55572975	6"2WDS;350;250#SS;2-10V;FS	7441.35
VEP-55572986	6"2WDS;350;250#SS;3WRE;FS	7374.17
VEP-55573945	6"2WDS;350;125#SS;2-10VDC	9129.53
VEP-55573956	6"2WDS;350;125#SS;3WRE	8972.79
VEP-55573975	6"2WDS;350;125#SS;2-10V;FS	9375.83
VEP-55573986	6"2WDS;350;125#SS;3WRE;FS	9308.66
VEP-55811645	2W,MTL.SEAT,2",2-10VDC	1384.58
VEP-55811656	2W,MTL.SEAT,2",3-WIRE	1327.47
VEP-55811675	2W,MTL.SEAT,2",2-10VDC FSAFE	1534.70
VEP-55811686	2W,MTL.SEAT,2",3WIRE FSAFE	1474.43
VEP-55811845	2W,MTL.SEAT,2",2-10VDC	1224.47
VEP-55811856	2W,MTL.SEAT,2",3-WIRE	1195.61
VEP-55811875	2W,MTL.SEAT,2",2-10VDC FSAFE	1443.62
VEP-55811886	2W,MTL.SEAT,2",3WIRE FSAFE	1412.21
VEP-55821645	2W,MTL.SEAT,2.5",2-10VDC	1446.47
VEP-55821656	2W,MTL.SEAT,2.5",3-WIRE	1389.39
VEP-55821675	2W,MTL.SEAT,2.5",2-10VDC FSAFE	1588.89
VEP-55821686	2W,MTL.SEAT,2.5",3WIRE w/FS	1536.32
VEP-55821845	2W,MTL.SEAT,2.5",2-10VDC	1286.39
VEP-55821856	2W,MTL.SEAT,2.5",3-WIRE	1257.49
VEP-55821875	2W,MTL.SEAT,2.5",2-10VDC FSAFE	1505.55
VEP-55821886	2W,MTL.SEAT,2.5",3WIRE w/FS	1474.13
VEP-55831645	2W,MTL.SEAT,3",2-10VDC	1508.40
VEP-55831656	2W,MTL.SEAT,3",3-WIRE	1451.28
VEP-55831675	2W,MTL.SEAT,3",2-10VDC FSAFE	1636.29
VEP-55831686	2W,MTL.SEAT,3",3WIRE FSAFE	1598.25
VEP-55831845	2W,MTL.SEAT,3",2-10VDC	1348.28
VEP-55831856	2W,MTL.SEAT,3",3-WIRE	1319.42
VEP-55831875	2W,MTL.SEAT,3",2-10VDC FSAFE	1567.43
VEP-55831886	2W,MTL.SEAT,3",3WIRE FSAFE	1536.02



Price List

Part Number	Description	List Price (Each)
VEP-55841645	2W,MTL.SEAT,4",2-10VDC	1639.96
VEP-55841656	2W,MTL.SEAT,4",3-WIRE	1582.84
VEP-55841675	2W,MTL.SEAT,4",2-10VDC FSAFE	1690.47
VEP-55841686	2W,MTL.SEAT,4",3WIRE FSAFE	1729.80
VEP-55851945	2W,MTL.SEAT,5",2-10VDC	1900.05
VEP-55851956	2W,MTL.SEAT,5",3-WIRE	1900.05
VEP-55851975	2W,MTL.SEAT,5",2-10VDC FSAFE	2327.50
VEP-55851986	2W,MTL.SEAT,5",3WIRE FSAFE	2327.50
VEP-55861945	2W,MTL.SEAT,6",2-10VDC	1985.18
VEP-55861956	2W,MTL.SEAT,6",3-WIRE	1985.18
VEP-55861975	2W,MTL.SEAT,6",2-10VDC FSAFE	2412.63
VEP-55861986	2W,MTL.SEAT,6",3WIRE FSAFE	2412.63
VEP-55871945	2W,MTL.SEAT,8",2-10VDC	2364.36
VEP-55871956	2W,MTL.SEAT,8",3-WIRE	2364.36
VEP-55871975	2W,MTL.SEAT,8",2-10VDC FSAFE	2791.85
VEP-55871986	2W,MTL.SEAT,8",3WIRE FSAFE	2791.85
VEP-55882975	2W,MTL.SEAT,10",(2)2-10VDC FS	4182.99
VEP-55882986	2W,MTL.SEAT,10",(2)3WIRE FS	4182.99
VEP-55892945	2W,MTL.SEAT,12",2-10VDC	3451.86
VEP-55892956	2W,MTL.SEAT,12",3-WIRE	3451.86
VEP-55892975	2W,MTL.SEAT,12",2-10VDC FSAFE	4306.80
VEP-55892986	2W,MTL.SEAT,12",3WIRE w/FS	4306.80
VEP-55911645	2W,RBR.SEAT,2",2-10VDC	1321.49
VEP-55911656	2W,RBR.SEAT,2",3-WIRE	1168.57
VEP-55911675	2W,RBR.SEAT,2",2-10VDC FSAFE	1561.80
VEP-55911686	2W,RBR.SEAT,2",3WIRE FSAFE	1496.26
VEP-55911845	2W,RBR.SEAT,2",2-10VDC	1228.64
VEP-55911856	2W,RBR.SEAT,2",3-WIRE	1130.33
VEP-55911875	2W,RBR.SEAT,2",2-10VDC FSAFE	1447.10
VEP-55911886	2W,RBR.SEAT,2",3WIRE w/FS	1348.80
VEP-55921645	2W,RBR.SEAT,2.5",2-10VDC	1443.38
VEP-55921656	2W,RBR.SEAT,2.5",3-WIRE	1290.46
VEP-55921675	2W,RBR.SEAT,2.5",2-10VDC FSAFE	1683.69
VEP-55921686	2W,RBR.SEAT,2.5",3WIRE w/FS	1618.15
VEP-55931945	2W,RBR.SEAT,3",2-10VDC	1738.97
VEP-55931956	2W,RBR.SEAT,3",3-WIRE	1598.24
VEP-55931975	2W,RBR.SEAT,3",2-10VDC FSAFE	2025.74
VEP-55931986	2W,RBR.SEAT,3",3WIRE w/FS	2025.74
VEP-55941945	2W,RBR.SEAT,4",2-10VDC	1908.27
VEP-55941956	2W,RBR.SEAT,4",3-WIRE	1755.35
VEP-55941975	2W,RBR.SEAT,4",2-10VDC FSAFE	2148.58
VEP-55941986	2W,RBR.SEAT,4",3WIRE w/FS	2110.86
VEP-55952945	2W,RBR.SEAT,5",2-10VDC	2624.62
VEP-55952956	2W,RBR.SEAT,5",3-WIRE	2318.77
VEP-55952975	2W,RBR.SEAT,5",2-10VDC FSAFE	3105.23
VEP-55952986	2W,RBR.SEAT,5",3WIRE w/FS	3076.38
VEP-55962945	2W,RBR.SEAT,6",2-10VDC	2841.33
VEP-55962956	2W,RBR.SEAT,6",3-WIRE	2535.48
VEP-55962975	2W,RBR.SEAT,6",2-10VDC FSAFE	3321.95
VEP-55962986	2W,RBR.SEAT,6",3WIRE w/FS	3246.63
VEP-55971575	2W,RBR.SEAT,8",2-POSITION	10551.33
VEP-55971577	2W,RBR.SEAT,8",0-10VDC	12017.97
VEP-55981575	2W,RBR.SEAT,10",2-POSITION; 1600 in-lb. Act.	10238.07
VEP-55981577	2W,RBR.SEAT,10",PROPORTIONAL; 1600 in-lb Act.	13132.29
VEP-55991585	2W,RBR.SEAT,12",2-POSITION	15577.69
VEP-55991587	2W,RBR.SEAT,12",PROPORTIONAL	20027.33
VEP-56811645	3W,MTL.SEAT,2",2-10VDC	3582.31
VEP-56811656	3W,MTL.SEAT,2",3-WIRE	3525.20
VEP-56811675	3W,MTL.SEAT,2",2-10VDC FSAFE	3619.64
VEP-56811686	3W,MTL.SEAT,2",3WIRE	3672.16
VEP-56811845	3W,MTL.SEAT,2",2-10VDC	3422.20
VEP-56811856	3W,MTL.SEAT,2",3-WIRE	3393.34
VEP-56811875	3W,MTL.SEAT,2",2-10VDC FSAFE	3641.39
VEP-56811886	3W,MTL.SEAT,2",3WIRE w/FS	3609.94



Price List

Part Number	Description	List Price (Each)
VEP-56821645	3W,MTL.SEAT,2.5",2-10VDC	3721.62
VEP-56821656	3W,MTL.SEAT,2.5",3-WIRE	3664.50
VEP-56821675	3W,MTL.SEAT,2.5",2-10VDC FSAFE	3758.90
VEP-56821686	3W,MTL.SEAT,2.5",3WIRE w/FS	3811.47
VEP-56831645	3W,MTL.SEAT,3",2-10VDC	4023.43
VEP-56831656	3W,MTL.SEAT,3",3-WIRE	3966.31
VEP-56831675	3W,MTL.SEAT,3",2-10VDC FSAFE	4060.71
VEP-56831686	3W,MTL.SEAT,3",3WIRE w/FS	4113.28
VEP-56841945	3W,MTL.SEAT,4",2-10VDC	4662.71
VEP-56841956	3W,MTL.SEAT,4",3-WIRE	4662.71
VEP-56841975	3W,MTL.SEAT,4",2-10VDC FSAFE	5090.20
VEP-56841986	3W,MTL.SEAT,4",3WIRE w/FS	5090.20
VEP-56851945	3W,MTL.SEAT,5",2-10VDC	5258.58
VEP-56851956	3W,MTL.SEAT,5",3-WIRE	5258.58
VEP-56851975	3W,MTL.SEAT,5",2-10VDC FSAFE	5686.07
VEP-56851986	3W,MTL.SEAT,5",3WIRE w/FS	5686.07
VEP-56861945	3W,MTL.SEAT,6",2-10VDC	5645.51
VEP-56861956	3W,MTL.SEAT,6",3-WIRE	5645.51
VEP-56861975	3W,MTL.SEAT,6",2-10VDC FSAFE	6072.96
VEP-56861986	3W,MTL.SEAT,6",3WIRE w/FS	6072.96
VEP-56871945	3W,MTL.SEAT,8",2-10VDC	7216.43
VEP-56871956	3W,MTL.SEAT,8",3-WIRE	7216.43
VEP-56871975	3W,MTL.SEAT,8",2-10VDC FSAFE	7643.92
VEP-56871986	3W,MTL.SEAT,8",3WIRE w/FS	7643.92
VEP-56882945	3W,MTL.SEAT,10",(2)2-10VDC	11113.02
VEP-56892945	3W,MTL.SEAT,12",2-10VDC	13968.55
VEP-56892956	3W,MTL.SEAT,12",3-WIRE	13968.55
VEP-56892975	3W,MTL.SEAT,12",2-10VDC FSAFE	14823.49
VEP-56892986	3W,MTL.SEAT,12",3WIRE w/FS	14823.49
VEP-56911645	3W,RBR.SEAT,2",2-10VDC	3055.21
VEP-56911656	3W,RBR.SEAT,2",3-WIRE	2902.28
VEP-56911675	3W,RBR.SEAT,2",2-10VDC FSAFE	3295.52
VEP-56911686	3W,RBR.SEAT,2",3WIRE w/FS	3229.98
VEP-56921645	3W,RBR.SEAT,2.5",2-10VDC	3292.24
VEP-56921656	3W,RBR.SEAT,2.5",3WIRE	3139.32
VEP-56921675	3W,RBR.SEAT,2.5",2-10VDC FSAFE	3532.55
VEP-56921686	3W,RBR.SEAT,2.5",3WIRE w/FS	3467.01
VEP-56931945	3W,RBR.SEAT,3",2-10VDC	3980.61
VEP-56931956	3W,RBR.SEAT,3",3WIRE	3827.69
VEP-56931975	3W,RBR.SEAT,3",2-10VDC FSAFE	4220.92
VEP-56931986	3W,RBR.SEAT,3",3WIRE w/FS	4155.38
VEP-56941945	3W,RBR.SEAT,4",2-10VDC	4468.23
VEP-56941956	3W,RBR.SEAT,4",3WIRE	4315.31
VEP-56941975	3W,RBR.SEAT,4",2-10VDC FSAFE	4708.54
VEP-56941986	3W,RBR.SEAT,4",3WIRE w/FS	4643.00
VEP-56952945	3W,RBR.SEAT,5",2-10VDC	6268.14
VEP-56952956	3W,RBR.SEAT,5",3WIRE	5962.29
VEP-56952975	3W,RBR.SEAT,5",2-10VDC FSAFE	6748.76
VEP-56952986	3W,RBR.SEAT,5",3WIRE w/FS	6617.68
VEP-56962945	3W,RBR.SEAT,6",2-10VDC	6755.75
VEP-56962956	3W,RBR.SEAT,6",3WIRE	6449.90
VEP-56962975	3W,RBR.SEAT,6",2-10VDC FSAFE	7236.37
VEP-56962986	3W,RBR.SEAT,6",3WIRE w/FS	7134.49
VEP-56971585	3W,RBR.SEAT,8",2-POSITION	19578.51
VEP-56971587	3W,RBR.SEAT,8",PROPORTIONAL	24028.15
VEP-56981585	3W,RBR.SEAT,10",2-POSITION	21358.37
VEP-56981587	3W,RBR.SEAT,10",PROPORTIONAL	26697.98
VEP-56991595	3W,RBR.SEAT,12",2-POSITION	24918.13
VEP-56991597	3W,RBR.SEAT,12",PROPORTIONAL	31147.63
VEP-58701645	2.5"2WSS;65CV125#BRZ;2-10VDC	1844.01
VEP-58701656	2.5"2WSS;65CV125#BRZ;3WIRE	1687.27
VEP-58701675	2.5"2WSS;65CV125#BRZ;2-10V;FS	2090.32
VEP-58701686	2.5"2WSS;65CV125#BRZ;3WIRE;FS	2023.14
VEP-58701945	2.5"2WSS;65CV125#BRZ;2-10VDC	2056.73



Price List

Part Number	Description	List Price (Each)
VEP-58701956	2.5"2WSS;65CV125#BRZ;3WRE	1899.99
VEP-58701975	2.5"2WSS;65CV125#BRZ;2-10V;FS	2303.04
VEP-58701986	2.5"2WSS;65CV125#BRZ;3WRE;FS	2235.86
VEP-58702645	2.5"2WSS;65CV250#BRZ;2-10VDC	2985.66
VEP-58702656	2.5"2WSS;65CV250#SS;3WRE	2828.92
VEP-58702675	2.5"2WSS;65CV250#SS;2-10V;FS	3231.96
VEP-58702686	2.5"2WSS;65CV250#SS;3WRE;FS	3164.79
VEP-58702945	2.5"2WSS;65CV250#SS;2-10VDC	3198.37
VEP-58702956	2.5"2WSS;65CV250#SS;3WRE	3041.63
VEP-58702975	2.5"2WSS;65CV250#SS;2-10V;FS	3444.68
VEP-58702986	2.5"2WSS;65CV250#SS;3WRE;FS	3377.50
VEP-58703645	2.5"2WSS;65CV125#SS;2-10VDC	2503.83
VEP-58703656	2.5"2WSS;65CV125#SS;3WRE	2347.09
VEP-58703675	2.5"2WSS;65CV125#SS;2-10V;FS	2750.13
VEP-58703686	2.5"2WSS;65CV125#SS;3WRE;FS	2682.96
VEP-58703945	2.5"2WSS;65CV125#SS;2-10VDC;FS	2716.55
VEP-58703956	2.5"2WSS;65CV125#SS;3WRE	2559.81
VEP-58703975	2.5"2WSS;65CV125#SS;2-10V;FS	2962.85
VEP-58703986	2.5"2WSS;65CV125#SS;3WRE;FS	2895.68
VEP-58704645	2.5"2WSS;65CV250#BRZ;2-10VDC	2201.96
VEP-58704656	2.5"2WSS;65CV250#BRZ;3WRE	2045.22
VEP-58704675	2.5"2WSS;65CV250#BRZ;2-10V;FS	2448.27
VEP-58704686	2.5"2WSS;65CV250#BRZ;3WRE;FS	2381.09
VEP-58704945	2.5"2WSS;65CV250#BRZ;2-10VDC	2414.68
VEP-58704956	2.5"2WSS;65CV250#BRZ;3WRE	2257.94
VEP-58704975	2.5"2WSS;65CV250#BRZ;2-10V;FS	2660.98
VEP-58704986	2.5"2WSS;65CV250#BRZ;3WRE;FS	2593.81
VEP-58711645	3"2WSS;90CV125#BRZ;2-10VDC	1986.94
VEP-58711656	3"2WSS;90CV125#BRZ;3WRE	1830.20
VEP-58711675	3"2WSS;90CV125#BRZ;2-10V;FS	2233.24
VEP-58711686	3"2WSS;90CV125#BRZ;3WRE;FS	2166.07
VEP-58711945	3"2WSS;90CV125#BRZ;2-10VDC	2199.65
VEP-58711956	3"2WSS;90CV125#BRZ;3WRE	2042.92
VEP-58711975	3"2WSS;90CV125#BRZ;2-10V;FS	2445.96
VEP-58711986	3"2WSS;90CV125#BRZ;3WRE;FS	2378.79
VEP-58712645	3"2WSS;90CV250#SS;2-10VDC	3360.67
VEP-58712656	3"2WSS;90CV250#SS;3WRE	3203.93
VEP-58712675	3"2WSS;90CV250#SS;2-10V;FS	3606.97
VEP-58712686	3"2WSS;90CV250#SS;3WRE;FS	3539.80
VEP-58712945	3"2WSS;90CV250#SS;2-10VDC	3573.38
VEP-58712956	3"2WSS;90CV250#SS;3WRE	3416.64
VEP-58712975	3"2WSS;90CV250#SS;2-10V;FS	3819.69
VEP-58712986	3"2WSS;90CV250#SS;3WRE;FS	3752.51
VEP-58713645	3"2WSS;90CV125#SS;2-10VDC	2876.91
VEP-58713656	3"2WSS;90CV125#SS;3WRE	2720.17
VEP-58713675	3"2WSS;90CV125#SS;2-10V;FS	3123.22
VEP-58713686	3"2WSS;90CV125#SS;3WRE;FS	3056.04
VEP-58713945	3"2WSS;90CV125#SS;2-10VDC;	3089.63
VEP-58713956	3"2WSS;90CV125#SS;3WRE	2932.89
VEP-58713975	3"2WSS;90CV125#SS;2-10V;FS	3335.93
VEP-58713986	3"2WSS;90CV125#SS;3WRE;FS	3268.76
VEP-58714645	3"2WSS;90CV250#BRZ;2-10VDC	2509.17
VEP-58714656	3"2WSS;90CV250#BRZ;3WRE	2352.43
VEP-58714675	3"2WSS;90CV250#BRZ;2-10V;FS	2755.47
VEP-58714686	3"2WSS;90CV250#BRZ;3WRE;FS	2688.30
VEP-58714945	3"2WSS;90CV250#BRZ;2-10VDC	2721.89
VEP-58714956	3"2WSS;90CV250#BRZ;3WRE	2565.15
VEP-58714975	3"2WSS;90CV250#BRZ;2-10V;FS	2968.19
VEP-58714986	3"2WSS;90CV250#BRZ;3WRE;FS	2901.02
VEP-58721945	4"2WSS;170CV125#BRZ;2-10VDC	2684.10
VEP-58721956	4"2WSS;170CV125#BRZ;3WRE	2527.36
VEP-58721975	4"2WSS;170CV125#BRZ;2-10V;FS	2930.41
VEP-58721986	4"2WSS;170CV125#BRZ;3WRE;FS	2863.23
VEP-58721A45	4"2WSS;170CV125#BRZ;(2)2-10VDC	3355.84



Price List

Part Number	Description	List Price (Each)
VEP-58721A56	4"2WSS;170CV125#BRZ;(2)3WRE	3042.36
VEP-58721A75	4"2WSS;170CV125#BRZ;(2)2-10VFS	3848.45
VEP-58721A86	4"2WSS;170CV125#BRZ;(2)3WRE;FS	3714.10
VEP-58722945	4"2WSS;170CV250#SS;2-10VDC	4296.34
VEP-58722956	4"2WSS;170CV250#SS;3WRE	4139.60
VEP-58722975	4"2WSS;170CV250#SS;2-10V;FS	4542.65
VEP-58722986	4"2WSS;170CV250#SS;3WRE;FS	4475.47
VEP-58722A45	4"2WSS;170CV250#SS;(2)2-10VDC	4968.08
VEP-58722A56	4"2WSS;170CV250#SS;(2)3WRE	4654.60
VEP-58722A75	4"2WSS;170CV250#SS;(2)2-10V;FS	5460.69
VEP-58722A86	4"2WSS;170CV250#SS;(2)3WRE;FS	5326.34
VEP-58723945	4"2WSS;170CV125#SS;2-10VDC	3852.08
VEP-58723956	4"2WSS;170CV125#SS;3WRE	3695.34
VEP-58723975	4"2WSS;170CV125#SS;2-10V;FS	4098.38
VEP-58723986	4"2WSS;170CV125#SS;3WRE;FS	4031.21
VEP-58723A45	4"2WSS;170CV125#SS;(2)2-10VDC	4523.82
VEP-58723A56	4"2WSS;170CV125#SS;(2)3WRE	4210.34
VEP-58723A75	4"2WSS;170CV125#SS;(2)2-10V;FS	5016.42
VEP-58723A86	4"2WSS;170CV125#SS;(2)3WRE;FS	4882.08
VEP-58724945	4"2WSS;170CV250#BRZ;2-10VDC	3737.56
VEP-58724956	4"2WSS;170CV250#BRZ;3WRE	3580.82
VEP-58724975	4"2WSS;170CV250#BRZ;2-10V;FS	3983.86
VEP-58724986	4"2WSS;170CV250#BRZ;3WRE;FS	3916.69
VEP-58724A45	4"2WSS;170CV250#BRZ;(2)2-10VDC	4409.30
VEP-58724A56	4"2WSS;170CV250#BRZ;(2)3WRE	4095.82
VEP-58724A75	4"2WSS;170CV250#BRZ;(2)2-10VFS	4901.90
VEP-58724A86	4"2WSS;170CV250#BRZ;(2)3WRE;FS	4767.56
VEP-58731945	5"2WSS;255CV125#BRZ;2-10VDC3	3417.43
VEP-58731956	5"2WSS;255CV125#BRZ;3WRE	3260.69
VEP-58731975	5"2WSS;255CV125#BRZ;2-10V;FS	3663.73
VEP-58731986	5"2WSS;255CV125#BRZ;3WRE;FS	3596.56
VEP-58731A45	5"2WSS;255CV125#BRZ;(2)2-10VDC	4089.17
VEP-58731A56	5"2WSS;255CV125#BRZ;(2)3WRE	3775.69
VEP-58731A75	5"2WSS;255CV125#BRZ;(2)2-10VFS	4581.78
VEP-58731A86	5"2WSS;255CV125#BRZ;(2)3WRE;FS	4447.43
VEP-58732945	5"2WSS;255CV250#SS;2-10VDC	5310.94
VEP-58732956	5"2WSS;255CV250#SS;3WRE	5154.20
VEP-58732975	5"2WSS;255CV250#SS;2-10V;FS	5557.24
VEP-58732986	5"2WSS;255CV250#SS;3WRE;FS	5490.07
VEP-58732A45	5"2WSS;255CV250#SS;(2)2-10VDC	5982.68
VEP-58732A56	5"2WSS;255CV250#SS;(2)3WRE	5669.20
VEP-58732A75	5"2WSS;255CV250#SS;(2)2-10V;FS	6475.29
VEP-58732A86	5"2WSS;255CV250#SS;(2)3WRE;FS	6340.94
VEP-58733945	5"2WSS;255CV125#SS;2-10VDC	5215.74
VEP-58733956	5"2WSS;255CV125#SS;3WRE	5059.00
VEP-58733975	5"2WSS;255CV125#SS;2-10V;FS	5462.05
VEP-58733986	5"2WSS;255CV125#SS;3WRE;FS	5394.87
VEP-58733A45	5"2WSS;255CV125#SS;(2)2-10VDC	5887.48
VEP-58733A56	5"2WSS;255CV125#SS;(2)3WRE	5574.00
VEP-58733A75	5"2WSS;255CV125#SS;(2)2-10V;FS	6380.09
VEP-58733A86	5"2WSS;255CV125#SS;(2)3WRE;FS	6245.74
VEP-58734945	5"2WSS;255CV250#BRZ;2-10VDC	5129.40
VEP-58734956	5"2WSS;255CV250#BRZ;3WRE	4972.66
VEP-58734975	5"2WSS;255CV250#BRZ;2-10V;FS	5375.70
VEP-58734986	5"2WSS;255CV250#BRZ;3WRE;FS	5308.53
VEP-58734A45	5"2WSS;255CV250#BRZ;(2)2-10VDC	5801.14
VEP-58734A56	5"2WSS;255CV250#BRZ;(2)3WRE	5487.66
VEP-58734A75	5"2WSS;255CV250#BRZ;(2)2-10VFS	6293.75
VEP-58734A86	5"2WSS;255CV250#BRZ;(2)3WRE;FS	6159.40
VEP-58741A45	6"2WSS;335CV125#BRZ;(2)2-10VDC	4934.57
VEP-58741A56	6"2WSS;335CV125#BRZ;(2)3WRE	4621.10
VEP-58741A75	6"2WSS;335CV125#BRZ;(2)2-10VFS	5427.18
VEP-58741A86	6"2WSS;335CV125#BRZ;(2)3WRE;FS	5292.83
VEP-58742A45	6"2WSS;335CV250#SS;(2)2-10VDC	8034.82



Price List

Part Number	Description	List Price (Each)
VEP-58742A56	6"2WSS;335CV250#SS;(2)3WRE	7721.34
VEP-58742A75	6"2WSS;335CV250#SS;(2)2-10V;FS	8527.43
VEP-58742A86	6"2WSS;335CV250#SS;(2)3WRE;FS	8393.08
VEP-58743A45	6"2WSS;335CV125#SS;(2)2-10VDC	6979.00
VEP-58743A56	6"2WSS;335CV125#SS;(2)3WRE	6665.52
VEP-58743A75	6"2WSS;335CV125#SS;(2)2-10V;FS	7471.61
VEP-58743A86	6"2WSS;335CV125#SS;(2)3WRE;FS	7337.26
VEP-58744A45	6"2WSS;335CV250#BRZ;(2)2-10VDC	6722.77
VEP-58744A56	6"2WSS;335CV250#BRZ;(2)3WRE	6409.29
VEP-58744A75	6"2WSS;335CV250#BRZ;(2)2-10VFS	7215.37
VEP-58744A86	6"2WSS;335CV250#BRZ;(2)3WRE;FS	7081.03
VEV-4302A3CF	Valve; 1/2", 5.8-60 PSID, 0.5 GPM PIC-V, Tri-state, MEP-4003	446.90
VEV-4302A3CK	Valve; 1/2", 5.8-60 PSID, 0.5 GPM PIC-V, 0-10 VDC, MEP-4002	595.87
VEV-4302A3DH	Valve; 1/2", 5.8-60 PSID, 0.5 GPM PIC-V, Tri-state, Failsafe, MEP-5373	723.55
VEV-4302A3DL	Valve; 1/2", 5.8-60 PSID, 0.5 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	744.83
VEV-4302B3CF	Valve; 1/2", 5.8-60 PSID, 1.0 GPM PIC-V, Tri-state, MEP-4003	446.90
VEV-4302B3CK	Valve; 1/2", 5.8-60 PSID, 1.0 GPM PIC-V, 0-10 VDC, MEP-4002	595.87
VEV-4302B3DH	Valve; 1/2", 5.8-60 PSID, 1.0 GPM PIC-V, Tri-state, Failsafe, MEP-5373	723.55
VEV-4302B3DL	Valve; 1/2", 5.8-60 PSID, 1.0 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	744.83
VEV-4302C3CF	Valve; 1/2", 5.8-60 PSID, 1.5 GPM PIC-V, Tri-state, MEP-4003	446.90
VEV-4302C3CK	Valve; 1/2", 5.8-60 PSID, 1.5 GPM PIC-V, 0-10 VDC, MEP-4002	595.87
VEV-4302C3DH	Valve; 1/2", 5.8-60 PSID, 1.5 GPM PIC-V, Tri-state, Failsafe, MEP-5373	723.55
VEV-4302C3DL	Valve; 1/2", 5.8-60 PSID, 1.5 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	744.83
VEV-4302D3CF	Valve; 1/2", 5.8-60 PSID, 2.5 GPM PIC-V, Tri-state, MEP-4003	446.90
VEV-4302D3CK	Valve; 1/2", 5.8-60 PSID, 2.5 GPM PIC-V, 0-10 VDC, MEP-4002	595.87
VEV-4302D3DH	Valve; 1/2", 5.8-60 PSID, 2.5 GPM PIC-V, Tri-state, Failsafe, MEP-5373	723.55
VEV-4302D3DL	Valve; 1/2", 5.8-60 PSID, 2.5 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	744.83
VEV-4302E3CF	Valve; 1/2", 5.8-60 PSID, 3.5 GPM PIC-V, Tri-state, MEP-4003	446.90
VEV-4302E3CK	Valve; 1/2", 5.8-60 PSID, 3.5 GPM PIC-V, 0-10 VDC, MEP-4002	595.87
VEV-4302E3DH	Valve; 1/2", 5.8-60 PSID, 3.5 GPM PIC-V, Tri-state, Failsafe, MEP-5373	723.55
VEV-4302E3DL	Valve; 1/2", 5.8-60 PSID, 3.5 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	744.83
VEV-4302F3CF	Valve; 1/2", 5.8-60 PSID, 4.5 GPM PIC-V, Tri-state, MEP-4003	446.90
VEV-4302F3CK	Valve; 1/2", 5.8-60 PSID, 4.5 GPM PIC-V, 0-10 VDC, MEP-4002	595.87
VEV-4302F3DH	Valve; 1/2", 5.8-60 PSID, 4.5 GPM PIC-V, Tri-state, Failsafe, MEP-5373	723.55
VEV-4302F3DL	Valve; 1/2", 5.8-60 PSID, 4.5 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	744.83
VEV-4302G3CF	Valve; 1/2", 5.8-60 PSID, 5.5 GPM PIC-V, Tri-state, MEP-4003	446.90
VEV-4302G3CK	Valve; 1/2", 5.8-60 PSID, 5.5 GPM PIC-V, 0-10 VDC, MEP-4002	595.87
VEV-4302G3DH	Valve; 1/2", 5.8-60 PSID, 5.5 GPM PIC-V, Tri-state, Failsafe, MEP-5373	723.55
VEV-4302G3DL	Valve; 1/2", 5.8-60 PSID, 5.5 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	744.83
VEV-4303G3CF	Valve; 3/4", 5.8-60 PSID, 5.5 GPM PIC-V, Tri-state, MEP-4003	510.75
VEV-4303G3CK	Valve; 3/4", 5.8-60 PSID, 5.5 GPM PIC-V, 0-10 VDC, MEP-4002	659.72
VEV-4303G3DH	Valve; 3/4", 5.8-60 PSID, 5.5 GPM PIC-V, Tri-state, Failsafe, MEP-5373	787.39
VEV-4303G3DL	Valve; 3/4", 5.8-60 PSID, 5.5 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	808.67
VEV-4303H3CF	Valve; 3/4", 5.8-60 PSID, 6.5 GPM PIC-V, Tri-state, MEP-4003	510.75
VEV-4303H3CK	Valve; 3/4", 5.8-60 PSID, 6.5 GPM PIC-V, 0-10 VDC, MEP-4002	659.72
VEV-4303H3DH	Valve; 3/4", 5.8-60 PSID, 6.5 GPM PIC-V, Tri-state, Failsafe, MEP-5373	787.39
VEV-4303H3DL	Valve; 3/4", 5.8-60 PSID, 6.5 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	808.67
VEV-4303J3CF	Valve; 3/4", 5.8-60 PSID, 7.5 GPM PIC-V, Tri-state, MEP-4003	510.75
VEV-4303J3CK	Valve; 3/4", 5.8-60 PSID, 7.5 GPM PIC-V, 0-10 VDC, MEP-4002	659.72
VEV-4303J3DH	Valve; 3/4", 5.8-60 PSID, 7.5 GPM PIC-V, Tri-state, Failsafe, MEP-5373	787.39
VEV-4303J3DL	Valve; 3/4", 5.8-60 PSID, 7.5 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	808.67
VEV-4304K2CF	Valve; 1", 2.9-60 PSID, 10 GPM PIC-V, Tri-state, MEP-4003	638.42
VEV-4304K2CK	Valve; 1", 2.9-60 PSID, 10 GPM PIC-V, 0-10 VDC, MEP-4002	787.39
VEV-4304K2DH	Valve; 1", 2.9-60 PSID, 10 GPM PIC-V, Tri-state, Failsafe, MEP-5373	915.08
VEV-4304K2DL	Valve; 1", 2.9-60 PSID, 10 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	936.36
VEV-4304L2CF	Valve; 1", 2.9-60 PSID, 15 GPM PIC-V, Tri-state, MEP-4003	638.42
VEV-4304L2CK	Valve; 1", 2.9-60 PSID, 15 GPM PIC-V, 0-10 VDC, MEP-4002	787.39
VEV-4304L2DH	Valve; 1", 2.9-60 PSID, 15 GPM PIC-V, Tri-state, Failsafe, MEP-5373	915.08
VEV-4304L2DL	Valve; 1", 2.9-60 PSID, 15 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	936.36
VEV-4304M2CF	Valve; 1", 2.9-60 PSID, 20 GPM PIC-V, Tri-state, MEP-4003	638.42
VEV-4304M2CK	Valve; 1", 2.9-60 PSID, 20 GPM PIC-V, 0-10 VDC, MEP-4002	787.39
VEV-4304M2DH	Valve; 1", 2.9-60 PSID, 20 GPM PIC-V, Tri-state, Failsafe, MEP-5373	915.08
VEV-4304M2DL	Valve; 1", 2.9-60 PSID, 20 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	936.36
VEV-4305M2CF	Valve; 1-1/4", 2.9-60 PSID, 20 GPM PIC-V, Tri-state, MEP-4003	1234.30



Part Number	Description	List Price (Each)
VEV-4305M2CK	Valve; 1-1/4", 2.9-60 PSID, 20 GPM PIC-V, 0-10 VDC, MEP-4002	1383.27
VEV-4305M2DH	Valve; 1-1/4", 2.9-60 PSID, 20 GPM PIC-V, Tri-state, Failsafe, MEP-5373	1510.95
VEV-4305M2DL	Valve; 1-1/4", 2.9-60 PSID, 20 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	1532.23
VEV-4305N2CF	Valve; 1-1/4", 2.9-60 PSID, 25 GPM PIC-V, Tri-state, MEP-4003	1234.30
VEV-4305N2CK	Valve; 1-1/4", 2.9-60 PSID, 25 GPM PIC-V, 0-10 VDC, MEP-4002	1383.27
VEV-4305N2DH	Valve; 1-1/4", 2.9-60 PSID, 25 GPM PIC-V, Tri-state, Failsafe, MEP-5373	1510.95
VEV-4305N2DL	Valve; 1-1/4", 2.9-60 PSID, 25 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	1532.23
VEV-4306N2CF	Valve; 1-1/2", 2.9-60 PSID, 25 GPM PIC-V, Tri-state, MEP-4003	1340.70
VEV-4306N2CK	Valve; 1-1/2", 2.9-60 PSID, 25 GPM PIC-V, 0-10 VDC, MEP-4002	1489.67
VEV-4306N2DH	Valve; 1-1/2", 2.9-60 PSID, 25 GPM PIC-V, Tri-state, Failsafe, MEP-5373	1617.36
VEV-4306N2DL	Valve; 1-1/2", 2.9-60 PSID, 25 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	1638.64
VEV-4306P2CF	Valve; 1-1/2", 2.9-60 PSID, 30 GPM PIC-V, Tri-state, MEP-4003	1340.70
VEV-4306P2CK	Valve; 1-1/2", 2.9-60 PSID, 30 GPM PIC-V, 0-10 VDC, MEP-4002	1489.67
VEV-4306P2DH	Valve; 1-1/2", 2.9-60 PSID, 30 GPM PIC-V, Tri-state, Failsafe, MEP-5373	1617.36
VEV-4306P2DL	Valve; 1-1/2", 2.9-60 PSID, 30 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	1638.64
VEV-4306Q2CF	Valve; 1-1/2", 2.9-60 PSID, 35 GPM PIC-V, Tri-state, MEP-4003	1340.70
VEV-4306Q2CK	Valve; 1-1/2", 2.9-60 PSID, 35 GPM PIC-V, 0-10 VDC, MEP-4002	1489.67
VEV-4306Q2DH	Valve; 1-1/2", 2.9-60 PSID, 35 GPM PIC-V, Tri-state, Failsafe, MEP-5373	1617.36
VEV-4306Q2DL	Valve; 1-1/2", 2.9-60 PSID, 35 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	1638.64
VEV-4308Q2CF	Valve; 2", 2.9-60 PSID, 35 GPM PIC-V, Tri-state, MEP-4003	1553.51
VEV-4308Q2CK	Valve; 2", 2.9-60 PSID, 35 GPM PIC-V, 0-10 VDC, MEP-4002	1702.48
VEV-4308Q2DH	Valve; 2", 2.9-60 PSID, 35 GPM PIC-V, Tri-state, Failsafe, MEP-5373	1830.17
VEV-4308Q2DL	Valve; 2", 2.9-60 PSID, 35 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	1851.45
VEV-4308R2CF	Valve; 2", 2.9-60 PSID, 40 GPM PIC-V, Tri-state, MEP-4003	1553.51
VEV-4308R2CK	Valve; 2", 2.9-60 PSID, 40 GPM PIC-V, 0-10 VDC, MEP-4002	1702.48
VEV-4308R2DH	Valve; 2", 2.9-60 PSID, 40 GPM PIC-V, Tri-state, Failsafe, MEP-5373	1830.17
VEV-4308R2DL	Valve; 2", 2.9-60 PSID, 40 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	1851.45
VEV-4308S2CF	Valve; 2", 2.9-60 PSID, 45 GPM PIC-V, Tri-state, MEP-4003	1553.51
VEV-4308S2CK	Valve; 2", 2.9-60 PSID, 45 GPM PIC-V, 0-10 VDC, MEP-4002	1702.48
VEV-4308S2DH	Valve; 2", 2.9-60 PSID, 45 GPM PIC-V, Tri-state, Failsafe, MEP-5373	1830.17
VEV-4308S2DL	Valve; 2", 2.9-60 PSID, 45 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	1851.45
VEV-4308T2CF	Valve; 2", 2.9-60 PSID, 50 GPM PIC-V, Tri-state, MEP-4003	1553.51
VEV-4308T2CK	Valve; 2", 2.9-60 PSID, 50 GPM PIC-V, 0-10 VDC, MEP-4002	1702.48
VEV-4308T2DH	Valve; 2", 2.9-60 PSID, 50 GPM PIC-V, Tri-state, Failsafe, MEP-5373	1830.17
VEV-4308T2DL	Valve; 2", 2.9-60 PSID, 50 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	1851.45
VEV-4308U2CF	Valve; 2", 2.9-60 PSID, 55 GPM PIC-V, Tri-state, MEP-4003	1553.51
VEV-4308U2CK	Valve; 2", 2.9-60 PSID, 55 GPM PIC-V, 0-10 VDC, MEP-4002	1702.48
VEV-4308U2DH	Valve; 2", 2.9-60 PSID, 55 GPM PIC-V, Tri-state, Failsafe, MEP-5373	1830.17
VEV-4308U2DL	Valve; 2", 2.9-60 PSID, 55 GPM PIC-V, 2-10 VDC, Failsafe, MEP-5372	1851.45
VEZ-4102AMBM	Valve; 1/2" 2 Way, NPT, NO; 1.0 Cv; 24VAC; Fail Open	209.20
VEZ-4102AMBP	Valve; 1/2" 2 Way, NPT, NO; 1.0 Cv; 115VAC; Fail Open	209.20
VEZ-4102BMBM	Valve; 1/2" 2 Way, NPT, NO; 2.5 Cv; 24VAC; Fail Open	209.20
VEZ-4102BMBP	Valve; 1/2" 2 Way, NPT, NO; 2.5 Cv; 115VAC; Fail Open	218.00
VEZ-4102CMBM	Valve; 1/2" 2 Way, NPT, 2.5 Cv; 24VAC Floating; Fail in Place	218.00
VEZ-4102CMBP	Valve; 1/2" 2 Way, NPT, NO; 4.0 Cv; 115VAC; Fail Open	209.20
VEZ-4103AMBM	Valve; 3/4" 2 Way, NPT, NO; 4.1 Cv; 24VAC; Fail Open	218.60
VEZ-4103AMBP	Valve; 3/4" 2 Way, NPT, NO; 4.1 Cv; 115VAC; Fail Open	218.60
VEZ-4104AMBM	Valve; 1" 2 Way, NPT, NO; 7.0 Cv; 24VAC; Fail Open	238.00
VEZ-4104AMBP	Valve; 1" 2 Way, NPT, NO; 7.0 Cv; 115VAC; Fail Open	238.00
VEZ-4202AMBN	Valve; 1/2" 2 Way, NPT, NC; 1.0 Cv; 24VAC; Fail Closed	209.20
VEZ-4202AMBQ	Valve; 1/2" 2 Way, NPT, NC; 1.0 Cv; 115VAC; Fail Closed	209.20
VEZ-4202BMBN	Valve; 1/2" 2 Way, NPT, NC; 2.5 Cv; 24VAC; Fail Closed	209.20
VEZ-4202BMBQ	Valve; 1/2" 2 Way, NPT, NC; 2.5 Cv; 115VAC; Fail Closed	209.20
VEZ-4202CMBN	Valve; 1/2" 2 Way, NPT, NC; 4.0 Cv; 24VAC; Fail Closed	209.20
VEZ-4202CMBQ	Valve; 1/2" 2 Way, NPT, NC; 4.0 Cv; 115VAC; Fail Closed	209.20
VEZ-4203AMBN	Valve; 3/4" 2 Way, NPT, NC; 4.1 Cv; 24VAC; Fail Closed	218.60
VEZ-4203AMBQ	Valve; 3/4" 2 Way, NPT, NC; 4.1 Cv; 115VAC; Fail Closed	218.60
VEZ-4204AMBN	Valve; 1" 2 Way, NPT, NC; 7.0 Cv; 24VAC; Fail Closed	238.00
VEZ-4204AMBQ	Valve; 1" 2 Way, NPT, NC; 7.0 Cv; 115VAC; Fail Closed	238.00
VEZ-4302AMBA	Valve; 1/2" 2 Way, NPT, 1.0 Cv; Proportional 10-0VDC; Fail in Place	345.80
VEZ-4302AMBB	Valve; 1/2" 2 Way, NPT, 1.0 Cv; Proportional 0-10VDC; Fail in Place	345.80
VEZ-4302AMBF	Valve; 1/2" 2 Way, NPT, 1.0 Cv; 24VAC Floating; Fail in Place	231.00
VEZ-4302BMBA	Valve; 1/2" 2 Way, NPT, 2.5 Cv; Proportional 10-0VDC; Fail in Place	345.80
VEZ-4302BMBB	Valve; 1/2" 2 Way, NPT, 2.5 Cv; Proportional 0-10VDC; Fail in Place	345.80



Part Number	Description	List Price (Each)
VEZ-4302BMBF	Valve; 1/2" 2 Way, NPT, 2.5 Cv; 24VAC Floating; Fail in Place	231.00
VEZ-4302CMBA	Valve; 1/2" 2 Way, NPT, 4.0 Cv; Proportional 10-0VDC; Fail in Place	345.80
VEZ-4302CMBB	Valve; 1/2" 2 Way, NPT, 4.0 Cv; Proportional 0-10VDC; Fail in Place	345.80
VEZ-4302CMBF	Valve; 1/2" 2 Way, NPT, 4.0 Cv; 24VAC Floating; Fail in Place	231.00
VEZ-4303AMBA	Valve; 3/4" 2 Way, NPT, 4.1 Cv; Proportional 10-0VDC; Fail in Place	354.68
VEZ-4303AMBB	Valve; 3/4" 2 Way, NPT, 4.1 Cv; Proportional 0-10VDC; Fail in Place	354.68
VEZ-4303AMBF	Valve; 3/4" 2 Way, NPT, 4.1 Cv; 24VAC Floating; Fail in Place	240.00
VEZ-4304AMBA	Valve; 1" 2 Way, NPT, 7.0 Cv; Proportional 10-0VDC; Fail in Place	374.40
VEZ-4304AMBB	Valve; 1" 2 Way, NPT, 7.0 Cv; Proportional 0-10VDC; Fail in Place	374.40
VEZ-4304AMBF	Valve; 1" 2 Way, NPT, 7.0 Cv; 24VAC Floating; Fail in Place	259.60
VEZ-4402AMBA	Valve; 1/2" 3 Way, NPT, Diverting; 1.0 Cv; Proportional 10-0VDC; Fail in Place	354.68
VEZ-4402AMBB	Valve; 1/2" 3 Way, NPT, Diverting; 1.0 Cv; Proportional 0-10VDC; Fail in Place	354.68
VEZ-4402AMBF	Valve; 1/2" 3 Way, NPT, Diverting; 1.0 Cv; 24VAC Floating; Fail in Place	240.00
VEZ-4402AMBM	Valve; 1/2" 3 Way, NPT, Diverting; 1.0 Cv; 24VAC; Fail AB - A	218.60
VEZ-4402AMBN	Valve; 1/2" 3 Way, NPT, Diverting; 1.0 Cv; 24VAC; Fail AB - B	218.60
VEZ-4402AMBP	Valve; 1/2" 3 Way, NPT, Diverting; 1.0 Cv; 115VAC; Fail AB - A	218.60
VEZ-4402AMBQ	Valve; 1/2" 3 Way, NPT, Diverting; 1.0 Cv; 115VAC; Fail AB - B	218.60
VEZ-4402BMBA	Valve; 1/2" 3 Way, NPT, Diverting; 2.5 Cv; Proportional 10-0VDC; Fail in Place	354.68
VEZ-4402BMBB	Valve; 1/2" 3 Way, NPT, Diverting; 2.5 Cv; Proportional 0-10VDC; Fail in Place	354.68
VEZ-4402BMBF	Valve; 1/2" 3 Way, NPT, Diverting; 2.5 Cv; 24VAC Floating; Fail in Place	240.00
VEZ-4402BMBM	Valve; 1/2" 3 Way, NPT, Diverting; 2.5 Cv; 24VAC; Fail AB - A	218.60
VEZ-4402BMBN	Valve; 1/2" 3 Way, NPT, Diverting; 2.5 Cv; 24VAC; Fail AB - B	218.60
VEZ-4402BMBP	Valve; 1/2" 3 Way, NPT, Diverting; 2.5 Cv; 115VAC; Fail AB - A	218.60
VEZ-4402BMBQ	Valve; 1/2" 3 Way, NPT, Diverting; 2.5 Cv; 115VAC; Fail AB - B	218.60
VEZ-4402CMBA	Valve; 1/2" 3 Way, NPT, Diverting; 4.0 Cv; Proportional 10-0VDC; Fail in Place	354.68
VEZ-4402CMBB	Valve; 1/2" 3 Way, NPT, Diverting; 4.0 Cv; Proportional 0-10VDC; Fail in Place	354.68
VEZ-4402CMBF	Valve; 1/2" 3 Way, NPT, Diverting; 4.0 Cv; 24VAC Floating; Fail in Place	240.00
VEZ-4402CMBM	Valve; 1/2" 3 Way, NPT, Diverting; 4.0 Cv; 24VAC; Fail AB - A	218.60
VEZ-4402CMBN	Valve; 1/2" 3 Way, NPT, Diverting; 4.0 Cv; 24VAC; Fail AB - B	218.60
VEZ-4402CMBP	Valve; 1/2" 3 Way, NPT, Diverting; 4.0 Cv; 115VAC; Fail AB - A	218.60
VEZ-4402CMBQ	Valve; 1/2" 3 Way, NPT, Diverting; 4.0 Cv; 115VAC; Fail AB - B	218.60
VEZ-4403AMBA	Valve; 3/4" 3 Way, NPT, Diverting; 4.1 Cv; Proportional 10-0VDC; Fail in Place	374.40
VEZ-4403AMBB	Valve; 3/4" 3 Way, NPT, Diverting; 4.1 Cv; Proportional 0-10VDC; Fail in Place	374.40
VEZ-4403AMBF	Valve; 3/4" 3 Way, NPT, Diverting; 4.1 Cv; 24VAC Floating; Fail in Place	259.60
VEZ-4403AMBM	Valve; 3/4" 3 Way, NPT, Diverting; 4.1 Cv; 24VAC; Fail AB - A	238.00
VEZ-4403AMBN	Valve; 3/4" 3 Way, NPT, Diverting; 4.1 Cv; 24VAC; Fail AB - B	238.00
VEZ-4403AMBP	Valve; 3/4" 3 Way, NPT, Diverting; 4.1 Cv; 115VAC; Fail AB - A	238.00
VEZ-4403AMBQ	Valve; 3/4" 3 Way, NPT, Diverting; 4.1 Cv; 115VAC; Fail AB - B	238.00
VEZ-4404AMBA	Valve; 1" 3 Way, NPT, Diverting; 7.0 Cv; Proportional 10-0VDC; Fail in Place	400.60
VEZ-4404AMBB	Valve; 1" 3 Way, NPT, Diverting; 7.0 Cv; Proportional 0-10VDC; Fail in Place	400.60
VEZ-4404AMBF	Valve; 1" 3 Way, NPT, Diverting; 7.0 Cv; 24VAC Floating; Fail in Place	277.80
VEZ-4404AMBM	Valve; 1" 3 Way, NPT, Diverting; 7.0 Cv; 24VAC; Fail AB - A	255.00
VEZ-4404AMBN	Valve; 1" 3 Way, NPT, Diverting; 7.0 Cv; 24VAC; Fail AB - B	255.00
VEZ-4404AMBP	Valve; 1" 3 Way, NPT, Diverting; 7.0 Cv; 115VAC; Fail AB - A	255.00
VEZ-4404AMBQ	Valve; 1" 3 Way, NPT, Diverting; 7.0 Cv; 115VAC; Fail AB - B	255.00
VFB-4303XS	Valve; 3/4" 2W NPT; SS; 2.9 Cv; SHORT MOUNT	240.00
VFB-4303YS	Valve; 3/4" 2W NPT; SS; 5.3 Cv; SHORT MOUNT	240.00
VFB-4303ZS	Valve; 3/4" 2W NPT; SS; 11 Cv; SHORT MOUNT	240.00
VFB-4602CB	Valve; 1/2" 3W NPT .6CV SHORT MOUNT	170.00
VFB-4602CBC	1/2" 3W NPT .6CV SHORT MOUNT, Vlv w/ Brkt for MEP-4000	170.00
VFB-4602CBD	1/2" 3W NPT .6CV SHORT MOUNT, Vlv w/ Brkt for MEP-5000	170.00
VFB-4602EB	Valve; 1/2" 3W NPT 1.0CV SHORT MOUNT	170.00
VFB-4602EBC	1/2" 3W NPT 1.0CV SHORT MOUNT, Vlv w/ Brkt for MEP-4000	170.00
VFB-4602EBD	1/2" 3W NPT 1.0CV SHORT MOUNT, Vlv w/ Brkt for MEP-5000	170.00
VFB-4602GB	Valve; 1/2" 3W NPT 2.4CV SHORT MOUNT	170.00
VFB-4602GBC	1/2" 3W NPT 2.4CV SHORT MOUNT, Vlv w/ Brkt for MEP-4000	170.00
VFB-4602GBD	1/2" 3W NPT 2.4CV SHORT MOUNT, Vlv w/ Brkt for MEP-5000	170.00
VFB-4602JB	Valve; 1/2" 3W NPT 4.3CV SHORT MOUNT	170.00
VFB-4602JBC	1/2" 3W NPT 4.3CV SHORT MOUNT, Vlv w/ Brkt for MEP-4000	170.00
VFB-4602JBD	1/2" 3W NPT 4.3CV SHORT MOUNT, Vlv w/ Brkt for MEP-5000	170.00
VFB-4602LB	Valve; 1/2" 3W NPT 8.0CV SHORT MOUNT	170.00
VFB-4602LBC	1/2" 3W NPT 8.0CV SHORT MOUNT, Vlv w/ Brkt for MEP-4000	170.00
VFB-4602LBD	1/2" 3W NPT 8.0CV SHORT MOUNT, Vlv w/ Brkt for MEP-5000	170.00
VFB-4603GB	Valve; 3/4" 3W NPT 2.4CV; SHORT MOUNT	195.00



Part Number	Description	List Price (Each)
VFB-4603GBC	3/4" 3W NPT 2.4CV; SHORT MOUNT, Vlv w/ Brkt for MEP-4000	195.00
VFB-4603GBD	3/4" 3W NPT 2.4CV; SHORT MOUNT, Vlv w/ Brkt for MEP-5000	195.00
VFB-4603JB	Valve; 3/4" 3W NPT 3.8CV; SHORT MOUNT	195.00
VFB-4603JBC	3/4" 3W NPT 3.8CV; SHORT MOUNT, Vlv w/ Brkt for MEP-4000	195.00
VFB-4603JBD	3/4" 3W NPT 3.8CV; SHORT MOUNT, Vlv w/ Brkt for MEP-5000	195.00
VFB-4603MB	Valve; 3/4" 3W NPT 11.0CV; SHORT MOUNT	195.00
VFB-4603MBC	3/4" 3W NPT 11.0CV; SHORT MOUNT, Vlv w/ Brkt for MEP-4000	195.00
VFB-4603MBD	3/4" 3W NPT 11.0CV; SHORT MOUNT, Vlv w/ Brkt for MEP-5000	195.00
VFB-4604HB	Valve; 1" 3W NPT 8.6CV; SHORT MOUNT	275.00
VFB-4604HBC	1" 3W NPT 8.6CV; SHORT MOUNT, Vlv w/ Brkt for MEP-4000	275.00
VFB-4604HBD	1" 3W NPT 8.6CV; SHORT MOUNT, Vlv w/ Brkt for MEP-5000	275.00
VFB-4604NB	Valve; 1" 3W NPT 22.3CV; SHORT MOUNT	275.00
VFB-4604NBC	1" 3W NPT 22.3CV; SHORT MOUNT, Vlv w/ Brkt for MEP-4000	275.00
VFB-4604NBD	1" 3W NPT 22.3CV; SHORT MOUNT, Vlv w/ Brkt for MEP-5000	275.00
VFB-4605EB	Valve; 1-1/4" 3W NPT 12.7CV; SHORT MOUNT	410.00
VFB-4605EBC	1-1/4" 3W NPT 12.7CV; SHORT MOUNT, Vlv w/ Brkt for MEP-4000	410.00
VFB-4605EBD	1-1/4" 3W NPT 12.7CV; SHORT MOUNT, Vlv w/ Brkt for MEP-5000	410.00
VFB-4605JB	Valve; 1-1/4" 3W NPT 34.1CV; SHORT MOUNT	410.00
VFB-4605JBC	1-1/4" 3W NPT 34.1CV; SHORT MOUNT, Vlv w/ Brkt for MEP-4000	410.00
VFB-4605JBD	1-1/4" 3W NPT 34.1CV; SHORT MOUNT, Vlv w/ Brkt for MEP-5000	410.00
VFB-4606EB	Valve; 1-1/2" 3W NPT 23.5CV; SHORT MOUNT	500.00
VFB-4606EBC	1-1/2" 3W NPT 23.5CV; SHORT MOUNT, Vlv w/ Brkt for MEP-4000	500.00
VFB-4606EBD	1-1/2" 3W NPT 23.5CV; SHORT MOUNT, Vlv w/ Brkt for MEP-5000	500.00
VFB-4606HB	Valve; 1-1/2" 3W NPT 61.1CV; SHORT MOUNT	500.00
VFB-4606HBC	1-1/2" 3W NPT 61.1CV; SHORT MOUNT, Vlv w/ Brkt for MEP-4000	500.00
VFB-4606HBD	1-1/2" 3W NPT 61.1CV; SHORT MOUNT, Vlv w/ Brkt for MEP-5000	500.00
VFB-4608BB	Valve; 2" 3W NPT 38.2CV; SHORT MOUNT	735.00
VFB-4608BBC	2" 3W NPT 38.2CV; SHORT MOUNT, Vlv w/ Brkt for MEP-4000	735.00
VFB-4608BBD	2" 3W NPT 38.2CV; SHORT MOUNT, Vlv w/ Brkt for MEP-5000	735.00
VFB-4608NB	Valve; 2" 3W NPT 108.5CV; SHORT MOUNT	735.00
VFB-4608NBC	2" 3W NPT 108.5CV; SHORT MOUNT, Vlv w/ Brkt for MEP-4000	735.00
VFB-4608NBD	2" 3W NPT 108.5CV; SHORT MOUNT, Vlv w/ Brkt for MEP-5000	735.00
VFB-4610EB	Valve; 2-1/2" 3W NPT 74.10 CV; SHORT MOUNT	830.00
VFB-4610EBC	2-1/2" 3W NPT 74.10 CV; SHORT MOUNT, Vlv w/ Brkt for MEP-4000	830.00
VFB-4610EBD	2-1/2" 3W NPT 74.10 CV; SHORT MOUNT, Vlv w/ Brkt for MEP-5000	830.00
VFB-4610FB	Valve; 2-1/2" 3W NPT 99.5CV; SHORT MOUNT	830.00
VFB-4610FBC	2-1/2" 3W NPT 99.5CV; SHORT MOUNT, Vlv w/ Brkt for MEP-4000	830.00
VFB-4610FBD	2-1/2" 3W NPT 99.5CV; SHORT MOUNT, Vlv w/ Brkt for MEP-5000	830.00
VFB-5316AS	Valve; 4" 2W Flanged Ball Valve; 125# Body; SS Trim; 91 Cv	2035.06
VFB-5316BS	Valve; 4" 2W Flanged Ball Valve; 125# Body; SS Trim; 118 Cv	2035.06
VFB-5316CS	Valve; 4" 2W Flanged Ball Valve; 125# Body; SS Trim; 152 Cv	2035.06
VFB-5316DS	Valve; 4" 2W Flanged Ball Valve; 125# Body; SS Trim; 197 Cv	2035.06
VFB-5316ES	Valve; 4" 2W Flanged Ball Valve; 125# Body; SS Trim; 254 Cv	2035.06
VFB-5320AS	Valve; 5" 2W Flanged Ball Valve; 125# Body; SS Trim; 144 Cv	3402.58
VFB-5320BS	Valve; 5" 2W Flanged Ball Valve; 125# Body; SS Trim; 185 Cv	3402.58
VFB-5320CS	Valve; 5" 2W Flanged Ball Valve; 125# Body; SS Trim; 240 Cv	3402.58
VFB-5320DS	Valve; 5" 2W Flanged Ball Valve; 125# Body; SS Trim; 309 Cv	3402.58
VFB-5320ES	Valve; 5" 2W Flanged Ball Valve; 125# Body; SS Trim; 400 Cv	3402.58
VFB-5324AS	Valve; 6" 2W Flanged Ball Valve; 125# Body; SS Trim; 208 Cv	3801.26
VFB-5324BS	Valve; 6" 2W Flanged Ball Valve; 125# Body; SS Trim; 268 Cv	3801.26
VFB-5324CS	Valve; 6" 2W Flanged Ball Valve; 125# Body; SS Trim; 346 Cv	3801.26
VFB-5324DS	Valve; 6" 2W Flanged Ball Valve; 125# Body; SS Trim; 441 Cv	3801.26
VFB-5324ES	Valve; 6" 2W Flanged Ball Valve; 125# Body; SS Trim; 577 Cv	3801.26
VFB-5324FS	Valve; 6" 2W Flanged Ball Valve; 125# Body; SS Trim; 650 Cv	3801.26
VFB-5616AS	Valve; 4" 3W Flanged Ball Valve; 125# Body; SS Trim; 91 Cv	2344.56
VFB-5616BS	Valve; 4" 3W Flanged Ball Valve; 125# Body; SS Trim; 118 Cv	2344.56
VFB-5616CS	Valve; 4" 3W Flanged Ball Valve; 125# Body; SS Trim; 152 Cv	2344.56
VFB-5616DS	Valve; 4" 3W Flanged Ball Valve; 125# Body; SS Trim; 197 Cv	2344.56
VFB-5616ES	Valve; 4" 3W Flanged Ball Valve; 125# Body; SS Trim; 254 Cv	2344.56
VFB-5616FS	Valve; 4" 3W Flanged Ball Valve; 125# Body; SS Trim; 327 Cv	2344.56
VFB-5620AS	Valve; 5" 3W Flanged Ball Valve; 125# Body; SS Trim; 144 Cv	3748.66
VFB-5620BS	Valve; 5" 3W Flanged Ball Valve; 125# Body; SS Trim; 185 Cv	3748.66
VFB-5620CS	Valve; 5" 3W Flanged Ball Valve; 125# Body; SS Trim; 240 Cv	3748.66
VFB-5620DS	Valve; 5" 3W Flanged Ball Valve; 125# Body; SS Trim; 309 Cv	3748.66



Price List

Part Number	Description	List Price (Each)
VFB-5620ES	Valve; 5" 3W Flanged Ball Valve; 125# Body; SS Trim; 400 Cv	3748.66
VFB-5624AS	Valve; 6" 3W Flanged Ball Valve; 125# Body; SS Trim; 208 Cv	4785.12
VFB-5624BS	Valve; 6" 3W Flanged Ball Valve; 125# Body; SS Trim; 268 Cv	4785.12
VFB-5624CS	Valve; 6" 3W Flanged Ball Valve; 125# Body; SS Trim; 346 Cv	4785.12
VFB-5624DS	Valve; 6" 3W Flanged Ball Valve; 125# Body; SS Trim; 441 Cv	4785.12
VFB-5624ES	Valve; 6" 3W Flanged Ball Valve; 125# Body; SS Trim; 577 Cv	4785.12
VFB-5624FS	Valve; 6" 3W Flanged Ball Valve; 125# Body; SS Trim; 650 Cv	4785.12
VFP-111401	2WAY, 1/2", 1.6CV,STRGT	98.96
VFP-111501	2-WAY VALVE,1/2",2.0 CV,STRGT	98.96
VFP-111601	2-WAY VALVE, 1/2",2.6 CV,STRGT	98.96
VFP-111701	2-WAY VALVE,3/4",2.9CV,STRGT	98.96
VFP-111801	2-WAY VALVE 3/4",4.7 CV,STRGT	98.96
VFP-112201	2 WAY, 1", 5.0CV, STRGHT	98.96
VFP-211401	2WAY, 1/2", 1.6CV,ANGLE	98.96
VFP-211501	2-WAY VALVE 1/2",2.0 CV,ANGLE	98.96
VFP-211601	2-WAY VALVE,1/2",2.6CV,ANGLE	98.96
VFP-211701	2-WAY VALVE,3/4",2.9CV,ANGLE	98.96
VFP-342001	3-WAY VALVE 3/4",4.9CV;W/O NPS	423.49
VFP-342101	3-WAY VALVE,1",8.5 CV;W/O NPS	423.49
VFP-4131025	1/2"; NO; 2-WAY; CV=4.6	480.95
VFP-4131026	1/2"; NO; 2-WAY; CV=4.6	480.95
VFP-4132025	3/4"; NO; 2-WAY; CV=6.9	519.26
VFP-4132026	3/4"; NO; 2-WAY; CV=6.9	519.26
VFP-4133025	1"; NO; 2-WAY; CV=11.6	608.64
VFP-4133026	1"; NO; 2-WAY; CV=11.6	608.64
VFP-4134025	1 1/4"; NO; 2-WAY; CV=18.5	689.50
VFP-4134026	1 1/4"; NO; 2-WAY; CV=18.5	689.50
VFP-4135025	1 1/2"; NO; 2-WAY; CV=29.0	787.40
VFP-4135026	1 1/2"; NO; 2-WAY; CV=29.0	787.40
VFP-4136025	2"; NO; 2-WAY; CV=46.4	872.52
VFP-4136026	2"; NO; 2-WAY; CV=46.4	872.52
VFP-4231025	1/2"; NC; 2-WAY; CV=4.6	480.95
VFP-4231026	1/2"; NC; 2-WAY; CV=4.6	480.95
VFP-4232025	3/4"; NC; 2-WAY; CV=6.9	519.26
VFP-4232026	3/4"; NC; 2-WAY; CV=6.9	519.26
VFP-4233025	1"; NC; 2-WAY; CV=11.6	608.64
VFP-4233026	1"; NC; 2-WAY; CV=11.6	608.64
VFP-4234025	1 1/4"; NC; 2-WAY; CV=18.5	689.50
VFP-4234026	1 1/4"; NC; 2-WAY; CV=18.5	689.50
VFP-4235025	1 1/2"; NC; 2-WAY; CV=29.0	787.40
VFP-4235026	1 1/2"; NC; 2-WAY; CV=29.0	787.40
VFP-4236025	2"; NC; 2-WAY; CV=46.4	872.52
VFP-4236026	2"; NC; 2-WAY; CV=46.4	872.52
VFP-4331025	1/2"; 3-WAY MIXING; CV=4.6	544.79
VFP-4331026	1/2"; 3-WAY MIXING; CV=4.6	544.79
VFP-4332025	3/4"; 3-WAY MIXING; CV=6.9	544.79
VFP-4332026	3/4"; 3-WAY MIXING; CV=6.9	544.79
VFP-4333025	1"; 3-WAY MIXING; CV=11.6	702.27
VFP-4333026	1"; 3-WAY MIXING; CV=11.6	702.27
VFP-4334025	1 1/4"; 3-WAY MIXING; CV=18.5	740.58
VFP-4334026	1 1/4"; 3-WAY MIXING; CV=18.5	740.58
VFP-4335025	1 1/2"; 3-WAY MIXING; CV=29.0	808.68
VFP-4335026	1 1/2"; 3-WAY MIXING; CV=29.0	808.68
VFP-4336025	2"; 3-WAY MIXING; CV=46.4	1064.05
VFP-4336026	2"; 3-WAY MIXING; CV=46.4	1064.05
VFP-6126023	1/2"; 2-WAY; NO; .7CV	297.93
VFP-6127023	1/2"; 2-WAY; NO; 1.1CV	297.93
VFP-6128023	1/2"; 2-WAY; NO; 1.8CV	297.93
VFP-6129023	1/2"; 2-WAY; NO; 2.3CV	297.93
VFP-6130023	1/2"; 2-WAY; NO; 2.9CV	297.93
VFP-6226023	1/2"; 2-WAY; NC; .7CV	297.93
VFP-6227023	1/2"; 2-WAY; NC; 1.1CV	297.93
VFP-6228023	1/2"; 2-WAY; NC; 1.8CV	297.93
VFP-6229023	1/2"; 2-WAY; NC; 2.3CV	297.93



Price List

Part Number	Description	List Price (Each)
VFP-6230023	1/2"; 2-WAY; NC; 2.9CV	297.93
VFP-6328023	1/2"; 3-WAY MIXING; 1.8CV	297.93
VFP-6329023	1/2"; 3-WAY MIXING; 2.3CV	297.93
VFP-6330023	1/2"; 3-WAY MIXING; 2.9CV	297.93
VFV-4302A3C	Valve; 1/2", 5.8-60 PSID, 0.5 GPM PIC-V, Vlv w/ Brkt for MEP-4000	425.62
VFV-4302A3D	Valve; 1/2", 5.8-60 PSID, 0.5 GPM PIC-V, Vlv w/ Brkt for MEP-5000	446.90
VFV-4302B3C	Valve; 1/2", 5.8-60 PSID, 1.0 GPM PIC-V, Vlv w/ Brkt for MEP-4000	425.62
VFV-4302B3D	Valve; 1/2", 5.8-60 PSID, 1.0 GPM PIC-V, Vlv w/ Brkt for MEP-5000	446.90
VFV-4302C3C	Valve; 1/2", 5.8-60 PSID, 1.5 GPM PIC-V, Vlv w/ Brkt for MEP-4000	425.62
VFV-4302C3D	Valve; 1/2", 5.8-60 PSID, 1.5 GPM PIC-V, Vlv w/ Brkt for MEP-5000	446.90
VFV-4302D3C	Valve; 1/2", 5.8-60 PSID, 2.5 GPM PIC-V, Vlv w/ Brkt for MEP-4000	425.62
VFV-4302D3D	Valve; 1/2", 5.8-60 PSID, 2.5 GPM PIC-V, Vlv w/ Brkt for MEP-5000	446.90
VFV-4302E3C	Valve; 1/2", 5.8-60 PSID, 3.5 GPM PIC-V, Vlv w/ Brkt for MEP-4000	425.62
VFV-4302E3D	Valve; 1/2", 5.8-60 PSID, 3.5 GPM PIC-V, Vlv w/ Brkt for MEP-5000	446.90
VFV-4302F3C	Valve; 1/2", 5.8-60 PSID, 4.5 GPM PIC-V, Vlv w/ Brkt for MEP-4000	425.62
VFV-4302F3D	Valve; 1/2", 5.8-60 PSID, 4.5 GPM PIC-V, Vlv w/ Brkt for MEP-5000	446.90
VFV-4302G3C	Valve; 1/2", 5.8-60 PSID, 5.5 GPM PIC-V, Vlv w/ Brkt for MEP-4000	425.62
VFV-4302G3D	Valve; 1/2", 5.8-60 PSID, 5.5 GPM PIC-V, Vlv w/ Brkt for MEP-5000	446.90
VFV-4303G3C	Valve; 3/4", 5.8-60 PSID, 5.5 GPM PIC-V, Vlv w/ Brkt for MEP-4000	468.19
VFV-4303G3D	Valve; 3/4", 5.8-60 PSID, 5.5 GPM PIC-V, Vlv w/ Brkt for MEP-5000	489.47
VFV-4303H3C	Valve; 3/4", 5.8-60 PSID, 6.5 GPM PIC-V, Vlv w/ Brkt for MEP-4000	468.19
VFV-4303H3D	Valve; 3/4", 5.8-60 PSID, 6.5 GPM PIC-V, Vlv w/ Brkt for MEP-5000	489.47
VFV-4303J3C	Valve; 3/4", 5.8-60 PSID, 7.5 GPM PIC-V, Vlv w/ Brkt for MEP-4000	468.19
VFV-4303J3D	Valve; 3/4", 5.8-60 PSID, 7.5 GPM PIC-V, Vlv w/ Brkt for MEP-5000	489.47
VFV-4304K2C	Valve; 1", 2.9-60 PSID, 10 GPM PIC-V, Vlv w/ Brkt for MEP-4000	617.15
VFV-4304K2D	Valve; 1", 2.9-60 PSID, 10 GPM PIC-V, Vlv w/ Brkt for MEP-5000	638.42
VFV-4304L2C	Valve; 1", 2.9-60 PSID, 15 GPM PIC-V, Vlv w/ Brkt for MEP-4000	617.15
VFV-4304L2D	Valve; 1", 2.9-60 PSID, 15 GPM PIC-V, Vlv w/ Brkt for MEP-5000	638.42
VFV-4304M2C	Valve; 1", 2.9-60 PSID, 20 GPM PIC-V, Vlv w/ Brkt for MEP-4000	617.15
VFV-4304M2D	Valve; 1", 2.9-60 PSID, 20 GPM PIC-V, Vlv w/ Brkt for MEP-5000	638.42
VFV-4305M2C	Valve; 1-1/4", 2.9-60 PSID, 20 GPM PIC-V, Vlv w/ Brkt for MEP-4000	1213.02
VFV-4305M2D	Valve; 1-1/4", 2.9-60 PSID, 20 GPM PIC-V, Vlv w/ Brkt for MEP-5000	1234.30
VFV-4305N2C	Valve; 1-1/4", 2.9-60 PSID, 25 GPM PIC-V, Vlv w/ Brkt for MEP-4000	1213.02
VFV-4305N2D	Valve; 1-1/4", 2.9-60 PSID, 25 GPM PIC-V, Vlv w/ Brkt for MEP-5000	1234.30
VFV-4306N2C	Valve; 1-1/2", 2.9-60 PSID, 25 GPM PIC-V, Vlv w/ Brkt for MEP-4000	1319.42
VFV-4306N2D	Valve; 1-1/2", 2.9-60 PSID, 25 GPM PIC-V, Vlv w/ Brkt for MEP-5000	1340.70
VFV-4306P2C	Valve; 1-1/2", 2.9-60 PSID, 30 GPM PIC-V, Vlv w/ Brkt for MEP-4000	1319.42
VFV-4306P2D	Valve; 1-1/2", 2.9-60 PSID, 30 GPM PIC-V, Vlv w/ Brkt for MEP-5000	1340.70
VFV-4306Q2C	Valve; 1-1/2", 2.9-60 PSID, 35 GPM PIC-V, Vlv w/ Brkt for MEP-4000	1319.42
VFV-4306Q2D	Valve; 1-1/2", 2.9-60 PSID, 35 GPM PIC-V, Vlv w/ Brkt for MEP-5000	1340.70
VFV-4308Q2C	Valve; 2", 2.9-60 PSID, 35 GPM PIC-V, Vlv w/ Brkt for MEP-4000	1532.23
VFV-4308Q2D	Valve; 2", 2.9-60 PSID, 35 GPM PIC-V, Vlv w/ Brkt for MEP-5000	1553.51
VFV-4308R2C	Valve; 2", 2.9-60 PSID, 40 GPM PIC-V, Vlv w/ Brkt for MEP-4000	1532.23
VFV-4308R2D	Valve; 2", 2.9-60 PSID, 40 GPM PIC-V, Vlv w/ Brkt for MEP-5000	1553.51
VFV-4308S2C	Valve; 2", 2.9-60 PSID, 45 GPM PIC-V, Vlv w/ Brkt for MEP-4000	1532.23
VFV-4308S2D	Valve; 2", 2.9-60 PSID, 45 GPM PIC-V, Vlv w/ Brkt for MEP-5000	1553.51
VFV-4308T2C	Valve; 2", 2.9-60 PSID, 50 GPM PIC-V, Vlv w/ Brkt for MEP-4000	1532.23
VFV-4308T2D	Valve; 2", 2.9-60 PSID, 50 GPM PIC-V, Vlv w/ Brkt for MEP-5000	1553.51
VFV-4308U2C	Valve; 2", 2.9-60 PSID, 55 GPM PIC-V, Vlv w/ Brkt for MEP-4000	1532.23
VFV-4308U2D	Valve; 2", 2.9-60 PSID, 55 GPM PIC-V, Vlv w/ Brkt for MEP-5000	1553.51
VFZ-4102AM	Valve; 1/2" 2 Way, NPT, 1.0 Cv	66.80
VFZ-4102BM	Valve; 1/2" 2 Way, NPT, 2.5 Cv	66.80
VFZ-4102CM	Valve; 1/2" 2 Way, NPT, 4.0 Cv	66.80
VFZ-4103AM	Valve; 3/4" 2 Way, NPT, 4.1 Cv	80.80
VFZ-4104AM	Valve; 1" 2 Way, NPT, 7.0 Cv	96.20
VFZ-4402AM	Valve; 1/2" 3 Way, NPT, 1.0 Cv	79.60
VFZ-4402BM	Valve; 1/2" 3 Way, NPT, 2.5 Cv	79.60
VFZ-4402CM	Valve; 1/2" 3 Way, NPT, 4.0 Cv	79.60
VFZ-4403AM	Valve; 3/4" 3 Way, NPT, 4.1 Cv	96.20
VFZ-4404AM	Valve; 1" 3 Way, NPT, 7.0 Cv	126.00
VFZ-8102AM	Valve; 1/2" 2 Way, SWT, 1.0 Cv	66.80
VFZ-8102BM	Valve; 1/2" 2 Way, SWT, 2.5 Cv	66.80
VFZ-8102CM	Valve; 1/2" 2 Way, SWT, 4.0 Cv	66.80
VFZ-8103AM	Valve; 3/4" 2 Way, SWT, 4.1 Cv	80.80



Price List

Part Number	Description	List Price (Each)
VFZ-8104AM	Valve; 1" 2 Way, SWT, 7.0 Cv	96.20
VFZ-8402AM	Valve; 1/2" 3 Way, SWT, 1.0 Cv	79.60
VFZ-8402BM	Valve; 1/2" 3 Way, SWT, 2.5 Cv	79.60
VFZ-8402CM	Valve; 1/2" 3 Way, SWT, 4.0 Cv	79.60
VFZ-8403AM	Valve; 3/4" 3 Way, SWT, 4.1 Cv	96.20
VFZ-8404AM	Valve; 1" 3 Way, SWT, 7.0 Cv	126.00
VTD-0803	BALL-JOINT 5/16-24	12.77
VTD-0804	BALL-JOINT 1/4-20	12.56
VTD-0902	BRACKET LONG RIGHT ANGLE	29.79
VTD-0903	BRACKET SHORT RIGHT ANGLE	28.73
VTD-0904	MOUNTING POST, ACTUATORS	14.90
VTD-0905	BRACKET, OFFSET MOUNTING	29.79
VTD-1007	U-SHAPED CLEVIS	9.58
VTD-1100	1/4" CLEVIS PIN	4.04
VTD-1151	7/16" SHAFT COLLAR	10.64
VTD-1153	1/2" SHAFT COLLAR	10.64
VTD-1205	HAIR-PIN COTTER	3.19
VTD-1403	CRANKARM SLOTTED 3/8 SHORT	27.67
VTD-1404	CRANKARM SLOTTED 1/2 SHORT	27.67
VTD-1405	CRANKARM SLOTTED 1/2 LONG	27.67
VTD-1406	CRANKARM SLOTTED 3/8 LONG	27.67
VTD-1414	CRANKARM 3-HOLE 3/8	27.67
VTD-1415	CRANKARM 3-HOLE 1/2	27.67
VTD-1500	POSITIONER FEEDBACK ARM	14.90
VTD-1601	1/4-20 EXTENSION	14.90
VTD-1611	PUSH ROD FOR MCP-8031 SERIES	51.07
VTD-1630	PUSHROD 5/16 X 6 1/4	11.70
VTD-1634	PUSHROD 5/16 X 3 1/4	11.70
VTD-1805	BOLT; 2" ACTUATOR MOUNTING	2.13
VTD-1809	BOLT; 3"X4" ACTUATOR MOUNTING	2.13
VTD-1920	1/2 13 NUT	4.04
VTD-2101	LOCKWASHER	2.13
VTD-2200	RETAINER RING	3.19
VTD-2250	FEEDBACK SPRING 5# 3" PLASTIC	29.79
VTD-2251	FEEDBACK SPRING 5# 4" PLASTIC	29.79
VTD-2252	FEEDBACK SPRING 5# 6" PLASTIC	29.79
VTD-2253	FEEDBACK SPRING 5# 4" METAL	29.79
VTD-2254	FEEDBACK SPRING 5# 3" METAL	29.79
VTD-2256	FEEDBACK SPRING 5# 6" METAL	29.79
VTD-2260	FEEDBACK SPRING 10# 3" PLASTIC	29.79
VTD-2261	FEEDBACK SPRING 10# 4" PLASTIC	29.79
VTD-2262	FEEDBACK SPRING 10# 6" PLASTIC	29.79
VTD-2263	FEEDBACK SPRING 10# 4" METAL	29.79
VTD-2264	FEEDBACK SPRING 10# 3" METAL	29.79
VTD-2266	FEEDBACK SPRING 10# 6" METAL	29.79
VTD-2272	FEEDBACK SPRING, 3#,6",PLASTIC	29.79
VTD-2282	FEED BACK SPRG;7PSI;6X6 PLASTC	38.31
VTD-2500	IN-LINE RESTRICTOR	12.77
VTD-4103	2X1 ACTUATOR SPRING; 5-10 PSI	26.60
VTD-4105	2X1 ACTUATOR SPRING; 8-13 PSI	26.60
VTD-4202	2x2 ACTUATOR SPRING: 3-12 PSI	26.60
VTD-4203	2x2 ACTUATOR SPRING: 5-10 PSI	26.60
VTD-4205	2X2 ACTUATOR SPRING; 8-13 PSI	26.60
VTD-4206	2X2 ACTUATOR SPRING; 10-15 PSI	26.60
VTD-4208	2X2 ACTUATOR SPRING;4-8 PSI	26.60
VTD-4302	3-12#SPRING FOR 3X3 MOTOR	39.80
VTD-4303	5-10#SPRING FOR 3X3 MOTOR	39.80
VTD-4305	8-13 PSI SPRING	39.80
VTD-4306	SPRING; 10#-15# FOR 3x3 MOTOR	39.80
VTD-4308	3X3 ACTUATOR SPRING;4-8 PSI	39.80
VTD-4402	4"X4" ACTUATOR SPRING 3-12 PSI	53.20
VTD-4403	4"X4" ACTUATOR SPRING 5-10 PSI	53.20
VTD-4405	4"X4" ACTUATOR SPRING 8-13 PSI	53.20
VTD-4406	4"X4" ACTUATOR SPRING 10-15PSI	53.20



Price List

Part Number	Description	List Price (Each)
VTD-4408	4"X4" ACTUATOR SPRING 4-8 PSI	53.20
VTD-5002	LINKAGE FOR 6X6 ACTUATORS	127.69
VTD-5003	BOLT,NUT,SLV FOR 6X6ACT.SWIVEL	12.77
VTD-9422	2" DIAPHRAGM (007-400-01)	19.15
VTD-9423	3" DIAPHRAGM (009-400-01)	25.54
VTD-9424	4" DIAPHRAGM (010-400-01)	34.05
VTD-9426	6" DIAPHRAGM (016-400-01)	59.59
VTD-9430	10" DIAPHRAGM (021-400-01)	191.53
X		
XEC-3001	TRANSDUCER;E-P,I-P	276.65
XEC-3002	TRANSDUCER;E-P,I-P,IN CASE	297.93
XEC-3004	TRANSDUCER;E-P,I-P;w OVERRIDE	297.93
XEE-1501	SIGNAL CONVERTOR; TIME PROP.	127.69
XEE-4002	POWER SUPPLY; 24VAC-9.1VDC	63.84
XEE-5002	POWER SUPPLY (24VAC TO 16VDC)	63.84
XEE-6111-040	120/24 40VA SINGLE HUB	46.82
XEE-6111-050	120/24 50VA SINGLE HUB	53.20
XEE-6111-075	120/24 75VA SINGLE HUB	93.64
XEE-6111-100	120/24 100VA SINGLE HUB	106.40
XEE-6111-150	120/24 150VA SINGLE HUB	148.97
XEE-6112-040	120/24 40VA DUAL HUB	59.59
XEE-6112-050	120/24 50VA DUAL HUB	70.23
XEE-6112-075	120/24 75VA DUAL HUB	106.40
XEE-6112-100	120/24 100VA DUAL HUB	127.69
XEE-6211-050	277/24 50VA SINGLE HUB	57.46
XEE-6212-050	277/24 50VA DUAL HUB	74.48
XEE-6311-050	MULTI TAP TO 24VAC 50VA	93.64
XEE-6311-075	MULTI TAP TO 24VAC 75VA	106.40
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