

### Description

The KMC VCP-41 Series are 2-way, normally open valves designed to control hot or chilled water, or low pressure steam.

These single-seat valves are available in 1/2" to 2" with Cv ratings of 4.6 to 46. Optional 5 psi and 10 psi positive positioners are also available.

The VCP-41 Series feature equal percentage flow characteristics, self-adjusting packing and stainless steel stems. Their construction make them ideal for many applications. These valves meet ANSI Class 4 specifications.

### Features

- ◆ Two way, equal percentage flow
- ◆ 1/2" to 2" and Cv ranges of 4.6 to 46
- ◆ Self-adjusting packing and stainless steel stems
- ◆ Meet ANSI Class 4 Specifications

### Accessories/Repair Parts

|          |                                     |
|----------|-------------------------------------|
| CMC-1002 | Replacement Positive Positioner     |
| HPO-5001 | 5 psi positioner feedback spring*   |
| HPO-5003 | 10 psi positioner feedback spring*  |
| HPO-5010 | Positioner feedback arm**           |
| 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. diaphragm only          |

\* For the 43.4 sq.in. actuator

Consult factory for stem-plug-disc assembly part number.



### Model

Choose the components that fit your application. Complete the corresponding blank in the model number.

VCP-41 XX 02 Y Z

#### "Z" Spring Range

- 0: Positioner Top\*
- 1: 3 to 8 psi (21 to 55 kPa)
- 2: 8 to 13 psi (55 to 91 kPa)
- 3: 3 to 13 psi (21 to 90 kPa)

#### "Y" Actuator Size

- 4: 11.4" Silicone Top
- 5: 11.4" Neoprene Top
- 6: 43.4" Neoprene Top

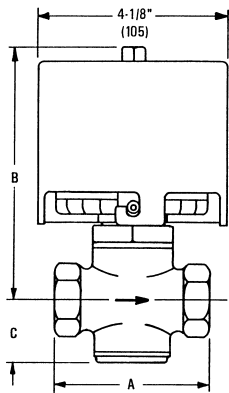
#### "XX" Size/Cv Range

- 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

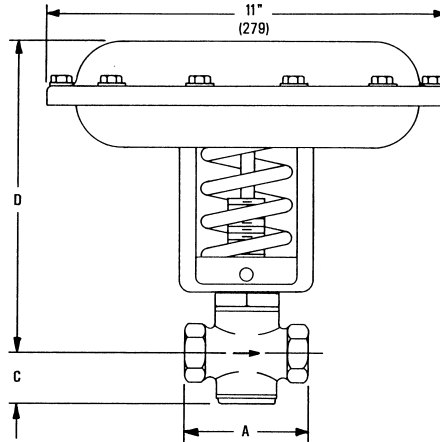
\* Positioner top contains a 3 to 8 psi internal spring.

## Details

All dimensions in inches (mm).



VCP-41 Series with 11.4 Sq. In. Actuator



VCP-41 Series with 43.4 Sq. In. Actuator

| SIZE NPT | DIMENSIONS IN INCHES (mm) |            |           |            |
|----------|---------------------------|------------|-----------|------------|
|          | A                         | B          | C         | D          |
| 1/2"     | 3.35 (85)                 | 5.86 (149) | 1.5 (38)  | 8.69 (221) |
| 3/4"     | 3.35 (85)                 | 5.86 (149) | 1.5 (38)  | 8.69 (221) |
| 1"       | 4.13 (105)                | 6.05 (154) | 1.77 (45) | 8.89 (226) |
| 1-1/4"   | 4.72 (112)                | 6.17 (157) | 1.89 (48) | 9.01 (229) |
| 1-1/2"   | 5.71 (145)                | 6.45 (164) | 2.24 (57) | 9.28 (236) |
| 2"       | 6.5 (165)                 | 6.8 (173)  | 2.64 (67) | 9.64 (245) |

| MAX CLOSE-OFF RATINGS IN PSI** |      |                       |         |               |         |                    |                       |         |               |         |                    |
|--------------------------------|------|-----------------------|---------|---------------|---------|--------------------|-----------------------|---------|---------------|---------|--------------------|
| SIZE NPT                       | Cv   | 11.4 SQ. IN. ACTUATOR |         |               |         | WEIGHT POUNDS (kg) | 43.4 SQ. IN. ACTUATOR |         |               |         | WEIGHT POUNDS (kg) |
|                                |      | 8-13 & 3-13 PSI RANGE |         | 3-8 PSI RANGE |         |                    | 8-13 & 3-13 PSI RANGE |         | 3-8 PSI RANGE |         |                    |
|                                |      | 15 PSI*               | 20 PSI* | 15 PSI*       | 20 PSI* |                    | 15 PSI*               | 20 PSI* | 15 PSI*       | 20 PSI* |                    |
| 1/2"                           | 4.6  | 35.0                  | 122.5   | 122.5         | 210.1   | 4.9 (2.2)          | 140.0                 | 250.0   | 250.0         | 250.0   | 15.9 (7.2)         |
| 3/4"                           | 6.9  | 35.0                  | 122.5   | 122.5         | 210.1   | 5.0 (2.3)          | 140.0                 | 250.0   | 250.0         | 250.0   | 16.1 (7.3)         |
| 1"                             | 11.6 | 21.0                  | 73.5    | 73.5          | 126.0   | 6.0 (2.7)          | 85.0                  | 250.0   | 250.0         | 250.0   | 17.0 (7.7)         |
| 1-1/4"                         | 18.5 | 14.0                  | 49.0    | 49.0          | 84.0    | 6.8 (3.1)          | 57.0                  | 199.6   | 199.6         | 250.0   | 17.9 (8.1)         |
| 1-1/2"                         | 29.0 | 9.0                   | 31.5    | 31.5          | 54.0    | 8.6 (3.9)          | 37.0                  | 129.6   | 129.6         | 250.0   | 19.6 (8.9)         |
| 2"                             | 46.4 | 6.0                   | 21.0    | 21.0          | 36.0    | 10.6 (4.8)         | 24.0                  | 84.0    | 84.0          | 250.0   | 21.6 (9.8)         |

\* Pressure applied to actuator

\*\* Not to exceed body rating

## Specifications

|                        |  |
|------------------------|--|
| <b>Action</b>          | Normally Open  |
| <b>Rangeability</b>    | 30 to 1  |
| <b>Body Rating</b>     | 250 psi (1724 kPa)   |
| <b>Body Type</b>       | Single seated, screw female connections  |
| <b>Steam Rating</b>    | 15.3 psig (105 kPa)  |
| <b>Material</b>        | Bronze body and seat; 303 Stainless Steel Stem; Brass plug with EPM disc; V-ring type self-adjusting EPM packing; Neoprene or silicone diaphragm; Steel top, epoxy coated; Alloy steel spring. |
| <b>Air Connections</b> | 1/8" FPT, 11.4 sq. in. actuator<br>1/4" FPT, 43.4 sq. in. actuator   |
| <b>Air Pressure</b>    | 25 psi (172 kPa) maximum   |
| <b>Actuator Size</b>   | 11.4 sq. in.; 43.4 sq.in.<br>pneumatic, direct action  |

### 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° ) |

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