

### Description

The KMC VCP-43 Series are 3-way mixing valves designed to control hot or chilled water.

These single-seat valves are available in 1/2" to 2" with Cv ratings of 4.6 to 46.4. Optional 5 psi and 10 psi positive positioners are also available.

The VCP-43 Series feature linear 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

- ◆ 3 way mixing with linear flow
- ◆ 1/2" to 2" sizes and Cv ranges of 4.6 to 46.4
- ◆ Self-adjusting packing and stainless steel stems
- ◆ Meet ANSI Class 4 specifications

### Accessories/Repair Parts

CMC-1002	Replacement pilot 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
HPO-5111	11.4 sq.in. silicone diaphragm
HPO-5113	43.4 sq.in. silicone diaphragm
HPO-5115	43.4 sq.in. diaphragm

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



### Model

Choose the components that fit your application and complete the corresponding blank in the model number

VCP-43 **XX-02-Y-Z**

#### "Z" Spring Range

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

#### "Y" Actuator Size

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

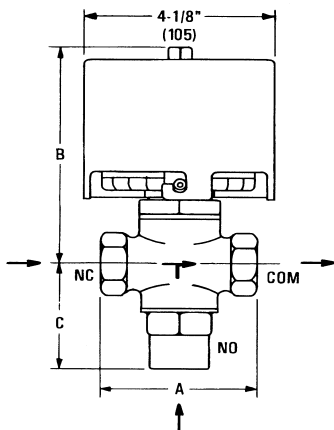
#### "XX" Size/Cv Range

- 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

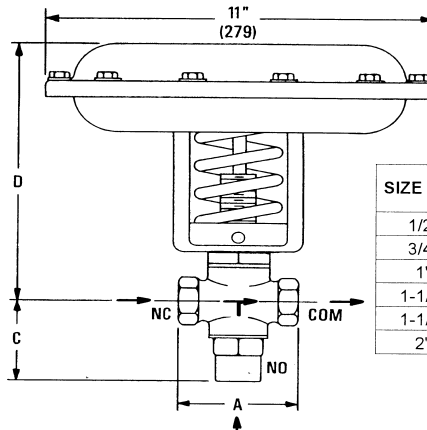
\* Positioner top contains 8 to 13 psi internal spring.

# Details

All dimensions in inches (mm)



VCP-43 Series with 11.4 Sq. In. Actuator <sup>Δ</sup>



VCP-43 Series with 43.4 Sq. In. Actuator <sup>Δ</sup>

SIZE NPT	DIMENSIONS IN INCHES (MM)			
	A	B	C	D
1/2"	3.35 (85)	5.86 (149)	2.72 (69)	8.69 (221)
3/4"	3.35 (85)	5.86 (149)	2.72 (69)	8.69 (221)
1"	4.13 (105)	6.05 (154)	2.80 (71)	8.89 (226)
1-1/4"	4.72 (120)	6.17 (157)	2.95 (75)	9.01 (229)
1-1/2"	5.71 (145)	6.45 (164)	3.11 (79)	9.28 (236)
2"	6.5 (165)	6.8 (173)	3.54 (90)	9.64 (245)

MAX CLOSE-OFF RATINGS IN PSI**																	
SIZE NPT	Cv	11.4 SQ. IN. ACTUATOR							43.4 SQ. IN. ACTUATOR								
		8-13 & 3-13 psi Range N.O.		3-8 psi Range N.O.		3-8 & 3-13 psi Range N.C.		8-13 psi Range N.C.	Weight Pounds (kg)	8-13 & 3-13 psi Range N.O.		3-8 psi Range N.O.		3-8 & 3-13 psi Range N.C.		8-13 psi Range N.C.	Weight Pounds (kg)
		15 psi*	20 psi*	15 psi*	20 psi*	0 psi*	0 psi*			15 psi*	20 psi*	15 psi*	20 psi*	0 psi*	0 psi*		
1/2"	4.6	35.0	122.5	122.5	210.1	52.5	140.0	5.6 (2.5)	140.0	250.0	250.0	250.0	210.0	250.0	16.6 (7.5)		
3/4"	6.9	35.0	122.5	122.5	210.1	52.5	140.0	5.5 (2.5)	140.0	250.0	250.0	250.0	210.0	250.0	16.6 (7.5)		
1"	11.6	21.0	73.5	73.5	126.0	31.5	84.0	6.8 (3.1)	85.0	250.0	250.0	250.0	127.5	250.0	17.8 (8.1)		
1-1/4"	18.5	14.0	49.0	49.0	84.0	21.0	56.0	7.7 (3.5)	57.0	199.6	199.6	250.0	85.5	228.0	18.7 (8.5)		
1-1/2"	29.0	9.0	31.5	31.5	54.0	13.5	36.0	9.9 (4.5)	37.0	129.6	129.6	250.0	55.5	146.7	20.9 (9.5)		
2"	46.4	6.0	21.0	21.0	36.0	9.0	24.0	12.6 (5.7)	24.0	84.0	84.0	250.0	36.0	96.0	23.6 (10.7)		

\* Pressure applied to actuator

\*\* Not to exceed body rating

## Specifications

<b>Action</b>	Three-way mixing	<b>Control Signal Input</b>	25 psi (172 kPa) maximum
<b>Rangeability</b>	30 to 1	<b>Actuator Size</b>	11.4 sq. in.; 43.4 sq.in. pneumatic, direct action
<b>Body Rating</b>	250 psi (1724 kPa)	<b>Temperature Limits</b>	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)
<b>Body Type</b>	Three-way, screwed female connection		
<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>Connections</b>	1/8" FPT for 11.4 sq.in. actuator; 1/4" FPT for 43.4 sq.in. actuator		

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