

Description

The KMC VCP-5270 Series are 2-way, normally closed valves, designed to control hot or chilled water or saturated steam.

These single-seat, equal percentage flow, valves are available in 2-1/2" to 6" with Cv ratings of 65 to 360. Valves with positive positioners are available.

The VCP-5270 Series feature, self-adjusting V-ring Teflon packing, and stainless steel stems. Their design makes them ideal for applications that require a leak rate of <0.1%. The VCP-5270 Series meet ANSI Class 125 or 250 specifications.

Features

- ◆ 2-way, equal percentage flow
- ◆ Self-adjusting V-ring Teflon packing and stainless steel stems
- ◆ Leak rate of <0.1%
- ◆ Meet ANSI Class 125 or 250 specifications

Accessories/Repair Parts

CMC-1002	Positive Positioner
HPO-5016	Positioner Kit (43.4) sq. in.
HPO-5113	43.4 sq.in. silicone diaphragm
HPO-5115	43.4 sq.in. neoprene diaphragm
HPO-5119	84 sq.in. diaphragm
HPO-5118	115 sq.in. diaphragm
HPO-5088	V-ring packing kit
HPO-5039	Packing kit for valves with 115" top

Model

Choose the specifications that match your application. Refer to the tables and diagrams on the back page for additional information.

NOTES:

Do not use Bronze Trim if water service exceeds 100 psid, or steam inlet pressure exceeds 40 psig, or with the 115 sq.in. actuator.

The 43.4 sq. in. with positioner contains an 8–13 psi internal spring. The 84 and 115 sq. in. with positioner contains a 9–15 psi internal spring.



VCP-52 WW X YY Z

"WW" Size/ CV Range

70:	2-1/2" / 65
71:	3" / 90
72:	4" / 170
73:	5" / 280
74:	6" / 360

"X" Flange Range

- 1: 125# Flange w/Bronze trim (See Notes)
- 2: 250# Flange w/Stainless Steel trim
- 3: 125# Flange w/Stainless Steel trim
- 4: 250# Flange w/Bronze trim (See Notes)

"YY" Actuator Size

27:	43.4 sq.in
71:	75 sq.in
72:	115 sq.in (standard packing - not V-ring)

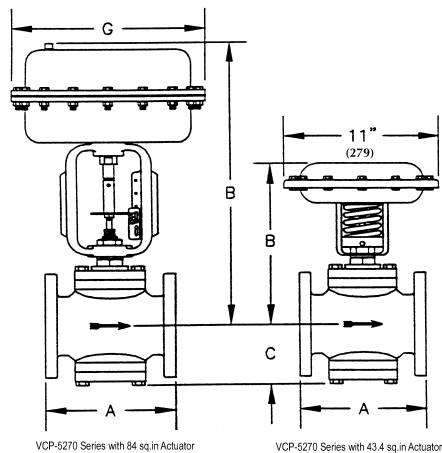
"Z" Actuator Range

- 0: Positioner (See Notes)
- 1: 3–8 psi
- 2: 8–13 psi
- 5: 3–15 psi
- 6: 3–9 psi
- 7: 9–15 psi

Details

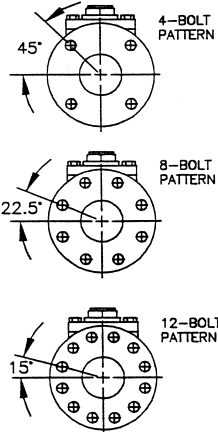
All dimensions in inches (mm).

"G" = 13.812" (343) 84 sq.in Actuator
 "G" = 16.75" (425) 115 sq.in Actuator



FLANGE DATA

"D"=DIA. OF HOLES
 "E"=BOLT CIRCLE DIA.
 "F"=QTY. OF HOLES



Cv & CLOSE-OFF RATINGS IN PSI (kPa) **							
Size	Cv	43.4 sq. in. Actuator		84 sq. in. Actuator		115 sq. in. Actuator	
		8-13 psi Range	3-8 psi Range	3-9 & 3-15 psi Range	9-15 psi Range	3-9 & 3-15 psi Range	9-15 psi Range
		0 psi (kPa)*		0 psi (kPa)*		0 psi (kPa)*	
2-1/2"	65	52 (359)	8 (55)	32 (221)	135 (931)	51(352)	192 (1323)
3"	90	33 (228)	3 (21)	20 (138)	91 (627)	33 (228)	131 (903)
4"	170	-	-	9 (62)	49 (338)	16 (110)	71 (490)
5"	280	-	-	-	30 (207)	9 (62)	44 (303)
6"	360	-	-	-	20 (138)	5 (34)	29 (200)

* Pressure applied to actuator ** Not to exceed body rating

Temperature/Pressure Chart		
Medium	Body Ratings: psi (kPa)	
Temperature °F (°C)	125# Flange	250# Flange
32° (0) to 150° (66)	175 (1207)	400 (2758)
175° (79)	170 (1172)	385 (2654)
200° (93)	165 (1138)	370 (2551)
225° (107)	157 (1082)	355 (2448)
250° (121)	150 (1034)	340 (2344)
350° (177)	125 (862)	280 (1931)
400° (204)	—	250 (1724)

PRODUCT INFORMATION												
SIZE	FLANGE	VALVE DIMENSIONS in inches (mm)					43.3 sq.in. Actuator		84 sq. in. Actuator		115 sq. in. Actuator	
		A	C	D	E	F Qty. of Holes	B	Weight lbs. (kg)	B	Weight lbs. (kg)	B	Weight lbs. (kg)
2-1/2"	125	9.00 (229)	4.88 (124)	0.75 (19)	5.50 (140)	4	12.16 (309)	65 (29)	20.88 (530)	98 (45)	32.63 (829)	137 (62)
	250	9.63 (245)		0.88 (22)	5.88 (149)	8		76 (34)		109 (49)		148 (67)
3"	125	10.00 (254)		0.75 (19)	6.0 (152)	4	12.79 (325)	76 (34)	21.5 (546)	109 (49)	33.25 (845)	148 (67)
	250	10.75 (273)	5.50 (140)	0.88 (22)	6.63 (168)	8		89 (40)		122 (55)		161 (73)
4"	125	13.00 (330)		0.75 (19)	7.50 (191)					157 (71)		196 (89)
	250	13.63 (346)	6.38 (162)	0.88 (22)	7.88 (200)	8	-	-	22.5 (572)	176 (80)	34.25 (870)	215 (98)
5"	125	15.75 (400)		0.88 (22)	8.50 (216)					176 (80)		215 (98)
	250	16.63 (422)	7.50 (191)	0.88 (22)	9.25 (235)	8	-	-	21.38 (543)	211 (96)	33.13 (842)	250 (113)
6"	125	17.75 (451)		0.88 (22)	9.50 (241)	8				218 (99)		257 (117)
	250	18.63 (473)	8.13 (207)	0.88 (22)	10.63 (278)	12	-	-	22.25 (565)	278 (126)	34.00 (864)	317 (144)

Specifications

Action	Normally open
Rangeability	50 to 1
Body Rating	See Chart
Body Type	Single seat, flanged connections, ANSI 125 or 250
Connections	1/4" FPT
Control Input	25 psi (172 kPa) maximum
Actuator Size	43.4, 84 and 115 sq.in. pneumatic, direct action
Material	Iron body, 316 Stainless Steel stem; Bronze or 316 Stainless Steel trim and V-ring type self adjusting Teflon packing (except 115 sq.in. with graphite packing);
Actuator 43.4	Steel top, epoxy coated, EPDM diaphragm*
Actuator 84	Ductile iron yoke, steel diaphragm chamber and Buna-N fabric reinforced diaphragm

Actuator 115 Aluminum yoke and steel diaphragm chamber with Buna-N fabric reinforced diaphragm

* Consult factory for silicone diaphragm.

Temperature Limits

Medium**	43.3 sq.in. w/neoprene 32° to 250° F (0° to 121° C)
	43.3 sq.in. w/silicone 32° to 400° F (0° to 204° C)
Ambient	35° to 175° F (4.4° to 79° C)
Shipping	-40° to 180° F (-40° to 82° C)

** See Temperature/Pressure chart above for body pressure rating versus medium temperature.

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