

PNEUMATICS & FITTINGS



PNEUMATIC GLOBE VALVE ACTUATORS V-3000, MP800 SERIES



DESCRIPTION

The **Johnson Controls V-3000, MP800 Series pneumatic valve assemblies** accurately control the flow of steam, hot water, or cold water through coils and heat exchangers of all types. These actuators have a molded, synthetic rubber diaphragm contained in a sturdy metal housing that protects against dirt and damage. Optional V-9502 pilot positioners offer increased force for very stable, accurate control, or for sequencing heating/cooling valves.

FEATURES

- **Low profile fits tight spaces**
- **Barbs for 1/4" or 1/8" OD poly tubing, or 1/8" FNPT air connections**
- **Fits all VG7000 valves from 1/2" to 2"**
- **Replaceable synthetic rubber diaphragm**
- **Full selection of spring ranges**

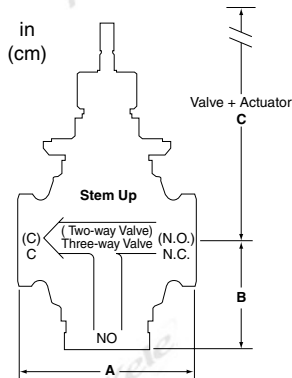


V-3000 (installed)



MP800

DIMENSIONS



Note: See VG7000 Series catalog sheet for valve specifications.

VALVE SIZE	A FACE TO FACE ALL VALVES	B LOWER VALVE		C	
		LOWER VALVE		V-3000	MP8000
		Two-way	Three-way	ALL VALVES	ALL VALVES
1/2	3 (7.62)	13/16 (0.81)	1-13/16 (4.60)	4.75 (12.07)	N/A
3/4	3-7/32 (8.18)	15/16 (0.94)	2-1/8 (5.40)	4.75 (12.07)	N/A
1	4-1/8 (10.48)	1-5/32 (2.94)	2-9/16 (6.51)	6 (15.24)	10.6 (26.92)
1-1/4	4-23/32 (11.99)	1-11/32 (3.41)	2-25/32 (7.06)	N/A	10.6 (26.92)
1-1/2	5-1/8 (13.02)	2-5/32 (5.48)	3-3/8 (8.57)	N/A	10.6 (26.92)
2	5-29/32 (15.00)	2-1/8 (5.40)	3-3/4 (9.53)	N/A	10.6 (26.92)

* DN is the European designation for the body size in metric units "mm"

SPECIFICATIONS

Action		Stroke	
V-3000	Spring return up	V-3000	5/16" to 3/4" (0.8 to 1.9 cm) depends on separately ordered spring
MP800	Field reversible action	MP821	5/16" (0.8 cm)
Connections	Barb for 1/4" or 1/8" OD poly tubing; 1/8" NPT for brass fitting	MP822	1/2" (1.3 cm)
Positioner		MP823	3/4" (1.9 cm)
V-3000	Order separately V-9502-75 (and spring kit V-9502-6801)	Operating Temperature	-20° to 150°F (-29° to 66°C)
MP800	Order separately V-9502-95 (and mounting kit MP8000-6002)	Media Temperature Range	Maximum fluid temperature 338°F (170°C), 100 psig (103 kPa) steam 25 psig (172 kPa)
Diaphragm		Maximum Pressure	
V-3000	4.5" (11.4 cm) diameter, 8 sq. in. (20 sq. cm) effective area	Dimensions	
MP800	8.7" (22.1 cm) diameter, 25 sq. in. (64 sq. cm) effective area	V-3000	3.5"H x 4.1"DIA (8.8 x 10.5 cm)
Spring Range		MP800	10.7"H x 8.7"DIA (27.2 x 22.1 cm)
V-3000	Depends on separately ordered spring VG7000-100x	Weight	
MP82xC001	3-7 psi	V-3000	0.9 lb (0.41 Kg)
MP82xD001	4-8 psi	MP800	14.0 lb (6.4 Kg)
MP82xE001	9-13 psi	Mounting	
		V-3000	Set screw to VG-7000 valve bonnet
		MP800	Threaded nut to VG-7000 valve bonnet
		Warranty	1 year



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VALVE CLOSE-OFF TABLE VG SERIES VALVES (shown in N.O./N.C. configurations)

Valve size (See VG7000 page)			Closeoff (psid) - N.O./N.C. for V-3000 actuator			Closeoff (psid) - N.O./N.C. for MP800 actuator		
Valve code	Size	Cv	3-6 psid	4-8 psid	9-13 psid	3-7 psid	4-8 psid	9-13 psid
			(VG-7000-1001)	(VG-7000-1002)	(VG-7000-1003)	(MP821C001B)	(MP821D001B)	(MP821E001B)
CT	1/2"	0.73	345/100	339/142	191/348	308/280	308/308	308/308
ET	1/2"	1.8	345/100	339/142	191/348	308/280	308/308	308/308
GT	1/2"	4.6	225/49	192/68	108/168	308/175	308/183	275/308
LT	3/4"	7.3	144/29	122/41	69/100	308/81	304/109	175/252
Valve code	Size	Cv	3-6 psid	4-8 psid	9-13 psid	3-7 psid	4-8 psid	9-13 psid
			(VG-7000-1004)	(VG-7000-1005)	(VG-7000-1006)	(MP822C001A)	(MP822D001A)	(MP822E001A)
NT	1"	11.6	90/17	76/25	42/65	279/70	257/96	148/223
PT	1-1/4"	18.5	55/10	47/14	26/37	170/40	157/55	90/128
Valve code	Size	Cv				3-7 psid	4-8 psid	9-13 psid
						(MP823C001A)	(MP823D001A)	(MP823E001A)
RT	1-1/2"	28.9				109/25	100/34	58/79
ST	2"	46.2				70/16	64/21	37/50

ORDERING INFORMATION

MODEL

V-3000-8011
VG7000-1001
VG7000-1002
VG7000-1003
VG7000-1004
VG7000-1005
VG7000-1006
MP821C001B

MP821D001B

MP821E001B

MP822C001A

MP822D001A

MP822E001A

MP823C001A

MP823D001A

MP823E001A

DESCRIPTION

Valve actuator housing (appropriate VG7000-100x spring kit required, order separately)
 Spring kit for V-3000-8011 valve actuator, 3-6 psig (21-41 kPa) range, use with 1/2" and 3/4" valves
 Spring kit for V-3000-8011 valve actuator, 4-8 psig (28-55 kPa) range, use with 1/2" and 3/4" valves
 Spring kit for V-3000-8011 valve actuator, 9-13 psig (62-90 kPa) range, use with 1/2" and 3/4" valves
 Spring kit for V-3000-8011 valve actuator, 3-6 psig (21-41 kPa) range, use with 1" valves
 Spring kit for V-3000-8011 valve actuator, 4-8 psig (28-55 kPa) range, use with 1" valves
 Spring kit for V-3000-8011 valve actuator, 9-13 psig (62-90 kPa) range, use with 1" valves
 Actuator and spring 3-7 psig (28-55 kPa), includes linkage, for use with 1/2" and 3/4" valves (stainless steel trim models only)
 Actuator and spring 4-8 psig (28-55 kPa), includes linkage, for use with 1/2" and 3/4" valves (stainless steel trim models only)
 Actuator and spring 9-13 psig (62-90 kPa), includes linkage, for use with 1/2" and 3/4" valves (stainless steel trim models only)
 Actuator and spring 3-7 psig (28-55 kPa), includes linkage, for use with 1" and 1-1/4" valves
 Actuator and spring 4-8 psig (28-55 kPa), includes linkage, for use with 1" and 1-1/4" valves
 Actuator and spring 9-13 psig (62-90 kPa), includes linkage, for use with 1" and 1-1/4" valves
 Actuator and spring 3-7 psig (28-55 kPa), includes linkage, for use with 1-1/2" and 2" valves
 Actuator and spring 4-8 psig (28-55 kPa), includes linkage, for use with 1-1/2" and 2" valves
 Actuator and spring 9-13 psig (62-90 kPa), includes linkage, for use with 1-1/2" and 2" valves

ACCESSORIES

MP8000-6002
V-9502-6801
V-9502-75
V-9502-95

Mounting kit for V-9502-95 positioner (MP800 actuators)
 Spring kit for V-9502-75 positioner (V-3000 actuator)
 Pilot positioner for V-3000 actuator, order VG7000-100x spring kit separately
 Pilot positioner for MP800 actuator, includes six springs