

VG7000 Series Brass Trim Globe Valves with MP82 Series Pneumatic Actuators

Description

VG7000 Series Brass Trim Globe Valves with MP82 Series Pneumatic Actuators control hot or chilled water or 38 psig saturated steam.

Refer to the *VG7000 Series Bronze Control Valves Product Bulletin (LIT-977140)* for important product application information.

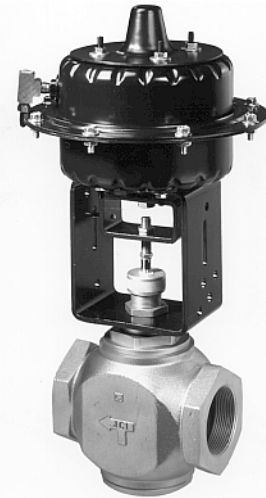
Features

- industrial-grade, drawn-steel actuator fits VG7000 valves 1 through 2 in.
- corrosion-resistant, electro-painted finish
- effective diaphragm area: 25 sq. in.
- controls: hot or chilled water, 38 psig saturated steam
- valve trim: brass

- maximum supply air pressure: 25 psig (172 kPa)
- fluid temperature: 35 to 284°F (2 to 140°C), 38 psig saturated steam
- valve body static pressure rating: ANSI Class 250
- factory or field assembly
- for optional V-9502-95 Positioner, change **00** at the end of the code number to **01**

Repair Information

If the VG7000 Series Globe Valve fails to operate within its specifications, replace the valve body, actuator, or entire assembly. For replacement parts, contact the nearest Johnson Controls® representative.



MP82 Series Pneumatic Actuator Mounted on a VG7441 Brass Globe Valve

Selection Chart

Actuator Code Number	1 and 1-1/4 in.		MP822C001A		MP822D001A		MP822E001A	
	1-1/2 and 2 in.		MP823C001A		MP823D001A		MP823E001A	
Spring Range			3 to 7 psig		4 to 8 psig		9 to 13 psig	
Valve Code Number	Size, in.	Cv	Closeoff psig	Code Number	Closeoff psig	Code Number	Closeoff psig	Code Number
Two-Way Normally Open — NPT End Connections (To specify a factory-mounted pneumatic positioner, change 00 at the end of the code number to 01.)								
VG7241NT	1	11.6	279	VG7241NT+822C00	257	VG7241NT+822D00	148	VG7241NT+822E00
VG7241PT	1-1/4	18.5	170	VG7241PT+822C00	157	VG7241PT+822D00	90	VG7241PT+822E00
VG7241RT	1-1/2	28.9	109	VG7241RT+823C00	100	VG7241RT+823D00	58	VG7241RT+823E00
VG7241ST	2	46.2	70	VG7241ST+823C00	64	VG7241ST+823D00	37	VG7241ST+823E00
Two-Way Normally Closed — NPT End Connections (To specify a factory-mounted pneumatic positioner, change 00 at the end of the code number to 01.)								
VG7441NT	1	11.6	70	VG7441NT+822C00	96	VG7441NT+822D00	223	VG7441NT+822E00
VG7441PT	1-1/4	18.5	40	VG7441PT+822C00	55	VG7441PT+822D00	128	VG7441PT+822E00
VG7441RT	1-1/2	28.9	25	VG7441RT+823C00	34	VG7441RT+823D00	79	VG7441RT+823E00
VG7441ST	2	46.2	16	VG7441ST+823C00	21	VG7441ST+823D00	50	VG7441ST+823E00
Three-Way Mixing — NPT End Connections (To specify a factory-mounted pneumatic positioner, change 00 at the end of the code number to 01.)								
VG7842NT	1	11.6	279/70	VG7842NT+822C00	257/96	VG7842NT+822D00	148/223	VG7842NT+822E00
VG7842PT	1-1/4	18.5	170/40	VG7842PT+822C00	157/55	VG7842PT+822D00	90/128	VG7842PT+822E00
VG7842RT	1-1/2	28.9	109/25	VG7842RT+823C00	100/34	VG7842RT+823D00	58/79	VG7842RT+823E00
VG7842ST	2	46.2	70/16	VG7842ST+823C00	64/21	VG7842ST+823D00	37/50	VG7842ST+823E00

Note: For optional V-9502-95 Positioner, change **00** at the end of the code number to **01**.

VG7000 Series Brass Trim Globe Valves with MP82 Series Pneumatic Actuators (Continued)

Technical Specifications

VG7000 Series Brass Trim Globe Valves with MP82 Series Pneumatic Actuators		
Service¹		Hot Water, Chilled Water, 50/50 Glycol Solutions, and Steam for HVAC Systems
Fluid Temperature Limits	Water	35 to 284°F (2 to 140°C)
	Steam	38 psig (262 kPa) Saturated Steam
Maximum Allowable Pressure/Temperature	Water	400 psig (2,756 kPa) up to 150°F (66°C) Decreasing to 365 psig (2,515 kPa) at 248°F (120°C)
	Steam	38 psig (262 kPa) Saturated Steam at 284°F (140°C)
Valve Body Pressure/Temperature Rating		Meets Requirements of ANSI B16.15, Class 250
Maximum Recommended Operating Pressure Drop	Water	35 psig (241 kPa) for 1/2 through 1-1/4 in. Valves 30 psig (207 kPa) for 1-1/2 and 2 in. Valves
	Steam	15 psig (103 kPa)
Flow Characteristics	Two-Way Valves	Equal Percentage
	Three-Way Valves	Linear Flow Characteristics
Rangeability²		> 100:1 According to EN60534-2-4
Leakage		0.01% of Maximum Flow per ANSI/FCI 70-2, Class 4
Actuator Ambient Operating Temperature Limits		-20 to 150°F (-29 to 66°C)
Maximum Actuator Supply Pressure		25 psig (172 kPa) Maximum
Materials	Body	Cast Bronze
	Bonnet	Brass
	Stem	Stainless Steel
	Plug	Brass
	Seat	Brass against Molded Elastomeric Disk
	Packing	Self-Adjusting Ethylene Propylene Rubber (EPR) Ring Pack U-Cups
Compliance	Canada	CRN: 0C1099.9087YTN

1. Refer to the VDI 2035 Guideline for recommended proper water treatment.
2. Rangeability is defined as the ratio of maximum controllable flow to minimum controllable flow.