

# 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.

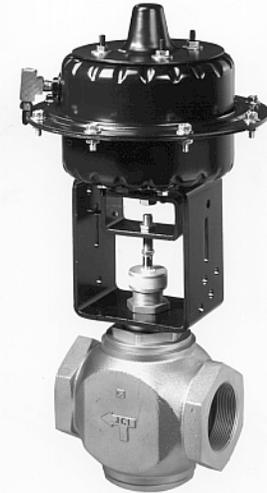
## Features

- 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°F to 284°F (2°C 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 in. and 1-1/4 in.		MP822C001A		MP822D001A		MP822E001A	
	1-1/2 in. and 2 in.		MP823C001A		MP823D001A		MP823E001A	
Spring Range			3 psig to 7 psig		4 psig to 8 psig		9 psig to 13 psig	
Valve Code Number	Size, in.	Cv	Closeoff psig	Code Number	Closeoff psig	Code Number	Closeoff psig	Code Number
<b>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.)</b>								
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
<b>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.)</b>								
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
<b>Three-Way Mixing — NPT End Connections (To specify a factory-mounted pneumatic positioner, change 00 at the end of the code number to 01.)</b>								
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		
<b>Service<sup>1</sup></b>		Hot Water, Chilled Water, 50/50 Glycol Solutions, and Steam for HVAC Systems
<b>Fluid Temperature Limits</b>	<b>Water</b>	35°F to 284°F (2°C to 140°C)
	<b>Steam</b>	38 psig (262 kPa) Saturated Steam
<b>Maximum Allowable Pressure/Temperature</b>	<b>Water</b>	400 psig (2,756 kPa) up to 150°F (66°C) Decreasing to 365 psig (2,515 kPa) at 248°F (120°C)
	<b>Steam</b>	38 psig (262 kPa) Saturated Steam at 284°F (140°C)
<b>Valve Body Pressure/Temperature Rating</b>		Meets Requirements of ANSI B16.15, Class 250
<b>Maximum Recommended Operating Pressure Drop</b>	<b>Water</b>	35 psig (241 kPa) for 1/2 in. through 1-1/4 in. Valves 30 psig (207 kPa) for 1-1/2 in. and 2 in. Valves
	<b>Steam</b>	15 psig (103 kPa)
<b>Flow Characteristics</b>	<b>Two-Way Valves</b>	Equal Percentage
	<b>Three-Way Valves</b>	Linear Flow Characteristics
<b>Rangeability<sup>2</sup></b>		> 100:1 According to EN60534-2-4
<b>Leakage</b>		0.01% of Maximum Flow per ANSI/FCI 70-2, Class 4
<b>Actuator Ambient Operating Temperature Limits</b>		-20°F to 150°F (-29°C to 66°C)
<b>Maximum Actuator Supply Pressure</b>		25 psig (172 kPa) Maximum
<b>Materials</b>	<b>Body</b>	Cast Bronze
	<b>Bonnet</b>	Brass
	<b>Stem</b>	Stainless Steel
	<b>Plug</b>	Brass
	<b>Seat</b>	Brass against Molded Elastomeric Disk
	<b>Packing</b>	Self-Adjusting Ethylene Propylene Rubber (EPR) Ring Pack U-Cups
<b>Compliance</b>	<b>Canada</b>	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.



This product is made of copper alloy, which contains lead. The product is therefore not to be used on drinking water.



This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, birth defects, or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

#### WARNING: BRASS MAY CONTAIN LEAD

To fulfill our obligations towards Article 33, in accordance to the European REACH Regulation No 1907/2006 EC, we hereby inform you that this article contains the following Substances of Very High Concern mentioned on the Candidate list:

- Lead