

## VG7000 Series

# Stainless Steel Trim Globe Valves with VA-720x Series Electric Actuators

## Description

VG7000 Series Stainless Steel Trim Globe Valves with VA-720x Series Pneumatic Actuator control hot or chilled water, or steam.

- valve body static pressure rating: ANSI Class 250
- factory or field assembly
- voltage: 24 VAC, 50/60 Hz, 8.7 VA

## Features

- 180 lb force – provides tight closeoff
- direct coupled – no linkage required
- packing – spring-loaded PTFE and elastomer V-rings
- magnetic clutch – protects gearing, ensures tight closeoff
- controls hot water, chilled water, or steam
- fits VG7000 valves 1/2 through 2 in.

## Repair Information

If the VG7000 Stainless Steel Trim Globe Valve with VA-720x Series Non-Spring Return Actuator fails to operate within its specifications, replace the unit. For a replacement valve or actuator, contact the nearest Johnson Controls® representative.



VA-720x Series Electric Actuator  
mounted on VG7844 Brass Globe Valve

## Selection Chart

### VG7000 Stainless Steel Trim Globe Valve with VA-720x Series Non-Spring Return Actuator

Actuator Code				VA-7200-1001	VA-7203-1001	VA-7202-1001
Actuator Input				On/Off (Floating)	On/Off (Floating) with Feedback	0 to 10 VDC Proportional
Temperature Range				35 to 338°F Fluid Temperature, 100 psig Saturated Steam		
Valve	Size	Cv	Closeoff	Non-Spring Return		
Two-Way Push-Down-to-Close – NPT End Connections						
VG7243CT	1/2"	0.73	308	VG7241CT+7200G	VG7241CT+7203G	VG7241CT+7202G
VG7243ET	1/2"	1.8	308	VG7241ET+7200G	VG7241ET+7203G	VG7241ET+7202G
VG7243GT	1/2"	4.6	278	VG7241GT+7200G	VG7241GT+7203G	VG7241GT+7202G
VG7243LT	3/4"	7.3	177	VG7241LT+7200G	VG7241LT+7203G	VG7241LT+7202G
VG7241NT	1"	11.6	112	VG7241NT+7200G	VG7241NT+7203G	VG7241NT+7202G
VG7241PT	1-1/4"	18.5	68	VG7241PT+7200G	VG7241PT+7203G	VG7241PT+7202G
VG7241RT	1-1/2"	28.9	44	VG7241RT+7200G	VG7241RT+7203G	VG7241RT+7202G
VG7241ST	2"	46.2	28	VG7241ST+7200G	VG7241ST+7203G	VG7241ST+7202G
Three-Way Mixing – NPT End Connections						
VG7844CT	1/2"	0.73	308 / 308	VG7842CT+7200G	VG7842CT+7203G	VG7842CT+7202G
VG7844ET	1/2"	1.8	308 / 308	VG7842ET+7200G	VG7842ET+7203G	VG7842ET+7202G
VG7844GT	1/2"	4.6	278 / 308	VG7842GT+7200G	VG7842GT+7203G	VG7842GT+7202G
VG7844LT	3/4"	7.3	177 / 197	VG7842LT+7200G	VG7842LT+7203G	VG7842LT+7202G
VG7842NT	1"	11.6	112 / 131	VG7842NT+7200G	VG7842NT+7203G	VG7842NT+7202G
VG7842PT	1-1/4"	18.5	68 / 75	VG7842PT+7200G	VG7842PT+7203G	VG7842PT+7202G
VG7842RT	1-1/2"	28.9	44 / 46	VG7842RT+7200G	VG7842RT+7203G	VG7842RT+7202G
VG7842ST	2"	46.2	28 / 29	VG7842ST+7200G	VG7842ST+7203G	VG7842ST+7202G

## Stainless Steel Trim Globe Valves with VA-720x Series Electric Actuators (Continued)

### Technical Specifications

VG7000 Stainless Steel Trim Globe Valves with VA-720x Series Non-Spring Return Electric Actuators		
Service <sup>1</sup>		Hot Water, Chill Water, 50/50 Glycol Solutions and Steam for HVAC Systems
Fluid Temperature Limits	Water	35 to 338°F (2 to 170°C)
	Steam	100 psig (690 kPa) Saturated Steam
Maximum Allowable Pressure Temperature	Water	400 psig (2,756 kPa) Up to 150°F (66°C) decreasing to 308 psig (2,122 kPa) at 248°F (120°C)
	Steam	100 psig (690 kPa) Saturated Steam
Valve Body Pressure/ Temperature Rating		Meets Requirements of ANSI B16.15, Class 250
Maximum Recommended Operating Pressure Drop	Water	35 psig (241 kPa) for ½ through 1-1/4 in. valves 30 psig (207 kPa) for 1-1/2 and 2 in. valves
	Steam	100 psig (690 kPa)
Flow Characteristics	Two-Way Valves	Equal Percentage
	Three-Way Valves	Linear Flow Characteristics
Rangeability <sup>2</sup>		25:1
Leakage		0.05% of Maximum Flow per ANSI/FCI 70-2, Class 4
Actuator Ambient Operating Temperature Limits		23 to 131°F (-5 to 55°C)
Actuator Input Signal	VA-7200-1001	24 VAC Three-Wire Floating Control
	VA-7202-1001	0 to 10 VDC Proportional Control
	VA-7203-1001	24 VAC Three-Wire Floating Control with 0 to 2000 ohm feedback potentiometer for 25/32 in. valve stroke
Actuator Power Requirements	VA-7200-1001	24 VAC (20 to 30 VAC), 50/60 Hz, 6.7 VA Nominal
	VA-7202-1001	24 VAC (20 to 30 VAC), 50/60 Hz, 8.7 VA Nominal
	VA-7203-1001	24 VAC (20 to 30 VAC), 50/60 Hz, 6.7 VA Nominal
Materials	Body	Cast Bronze
	Bonnet	Brass
	Stem	Stainless Steel
	Plug	Stainless Steel
	Seat	Stainless Steel
	Packing	Spring-Loaded PTFE and Elastomer V-Rings

1. Refer to VDI 2035 Standard 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