

Brass Trim Globe Valves with VA-720x Series Electric Actuators

Description

VG7000 Brass Trim Globe Valves with VA-720x Series Electric Actuator control hot or chilled water, or steam.

Features

- 180 lb force – provides tight closeoff
- direct coupled – no linkage required
- magnetic clutch – protects gearing, ensures tight closeoff
- controls – hot water, chilled water, or steam
- fits VG7000 valves 1/2 through 2 in.
- valve body static pressure rating: ANSI Class 250
- factory or field assembly
- voltage: 24 VAC, 50/60 Hz, 8.7 VA

Repair Information

If the VG7000 Brass Trim Globe Valve with VA-720x Series Non-Spring Return Electric 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 VG7842 Brass Globe Valve

Selection Chart

VG7000 Brass Trim Globe Valve with VA-720x Series Non-Spring Return Electric 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 284°F Fluid Temperature, 38 psig Saturated Steam		
Valve	Size	Cv	Closeoff	Non-Spring Return		
Two-Way Push-Down-to-Close – NPT End Connections						
VG7241NT	1"	11.6	179	VG7241NT+7200G	VG7241NT+7203G	VG7241NT+7202G
VG7241PT	1-1/4"	18.5	109	VG7241PT+7200G	VG7241PT+7203G	VG7241PT+7202G
VG7241RT	1-1/2"	28.9	70	VG7241RT+7200G	VG7241RT+7203G	VG7241RT+7202G
VG7241ST	2"	46.2	45	VG7241ST+7200G	VG7241ST+7203G	VG7241ST+7202G
Three-Way Mixing – NPT End Connections						
VG7842NT	1"	11.6	179 / 209	VG7842NT+7200G	VG7842NT+7203G	VG7842NT+7202G
VG7842PT	1-1/4"	18.5	109 / 120	VG7842PT+7200G	VG7842PT+7203G	VG7842PT+7202G
VG7842RT	1-1/2"	28.9	70 / 74	VG7842RT+7200G	VG7842RT+7203G	VG7842RT+7202G
VG7842ST	2"	46.2	45 / 46	VG7842ST+7200G	VG7842ST+7203G	VG7842ST+7202G
Two-Way Push-Down-to-Close – Union Sweat End Connections						
VG7281NT	1"	11.6	179	VG7281NT+7200G	VG7281NT+7203G	VG7281NT+7202G
VG7281PT	1-1/4"	18.5	109	VG7281PT+7200G	VG7281PT+7203G	VG7281PT+7202G
VG7281RT	1-1/2"	28.9	70	VG7281RT+7200G	VG7281RT+7203G	VG7281RT+7202G
VG7281ST	2"	46.2	45	VG7281ST+7200G	VG7281ST+7203G	VG7281ST+7202G
Three-Way Mixing – Union Sweat End Connections						
VG7882NT	1"	11.6	179 / 209	VG7882NT+7200G	VG7882NT+7203G	VG7882NT+7202G
VG7882PT	1-1/4"	18.5	109 / 120	VG7882PT+7200G	VG7882PT+7203G	VG7882PT+7202G
VG7882RT	1-1/2"	28.9	70 / 74	VG7882RT+7200G	VG7882RT+7203G	VG7882RT+7202G
VG7882ST	2"	46.2	45 / 46	VG7882ST+7200G	VG7882ST+7203G	VG7882ST+7202G
Two-Way Push-Down-to-Close – Union Globe End Connections						
VG7251NT	1"	11.6	179	VG7251NT+7200G	VG7251NT+7203G	VG7251NT+7202G
VG7251PT	1-1/4"	18.5	109	VG7251PT+7200G	VG7251PT+7203G	VG7251PT+7202G
VG7251RT	1-1/2"	28.9	70	VG7251RT+7200G	VG7251RT+7203G	VG7251RT+7202G
Two-Way Push-Down-to-Close – Union Angle End Connections						
VG7551NT	1"	11.6	179	VG7551NT+7200G	VG7551NT+7203G	VG7551NT+7202G
VG7551PT	1-1/4"	18.5	109	VG7551PT+7200G	VG7551PT+7203G	VG7551PT+7202G
VG7551RT	1-1/2"	28.9	70	VG7551RT+7200G	VG7551RT+7203G	VG7551RT+7202G

VG7000 Series Brass Trim Globe Valves with VA-720x Series Electric Actuators (Continued)

Technical Specifications

VG7000 Brass Trim Globe Valves with VA-720x Series Non-Spring Return Electric Actuators		
Service¹		Hot Water, Chill 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 ½ 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		25:1
Leakage		0.01% 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-703-1001	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-703-1001	24 VAC (20 to 30 VAC), 50/60 Hz, 6.7 VA Nominal
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

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.