

Brass Trim Globe Valves with VA-715x Series Electric Actuators

Description

VG7000 Brass Trim Globe Valves with VA-715x Series Non-Spring Return Electric Actuator control hot or chilled water, or steam.

Features

- 90 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, 4.7 VA

Repair Information

If the VG7000 Brass Trim Globe Valve with VA-715x 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-715x Series Electric Actuator mounted on VG7842 Brass Globe Valve

Selection Chart

VG7000 Brass Trim Globe Valve with VA-715x Series Non-Spring Return Electric Actuator (Part 1 of 2)

Actuator Code				VA-7150-1001	VA-7153-1001	VA-7152-1001
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						
VG7241CT	1/2"	0.73	345	VG7241CT+7150G	VG7241CT+7153G	VG7241CT+7152G
VG7241ET	1/2"	1.8	345	VG7241ET+7150G	VG7241ET+7153G	VG7241ET+7152G
VG7241GT	1/2"	4.6	216	VG7241GT+7150G	VG7241GT+7153G	VG7241GT+7152G
VG7241LT	3/4"	7.3	138	VG7241LT+7150G	VG7241LT+7153G	VG7241LT+7152G
VG7241NT	1"	11.6	86	VG7241NT+7150G	VG7241NT+7153G	VG7241NT+7152G
VG7241PT	1-1/4"	18.5	52	VG7241PT+7150G	VG7241PT+7153G	VG7241PT+7152G
VG7241RT	1-1/2"	28.9	34	VG7241RT+7150G	VG7241RT+7153G	VG7241RT+7152G
VG7241ST	2"	46.2	21	VG7241ST+7150G	VG7241ST+7153G	VG7241ST+7152G
Three-Way Mixing – NPT End Connections						
VG7842CT	1/2"	0.73	345 / 345	VG7842CT+7150G	VG7842CT+7153G	VG7842CT+7152G
VG7842ET	1/2"	1.8	345 / 345	VG7842ET+7150G	VG7842ET+7153G	VG7842ET+7152G
VG7842GT	1/2"	4.6	216 / 257	VG7842GT+7150G	VG7842GT+7153G	VG7842GT+7152G
VG7842LT	3/4"	7.3	138 / 153	VG7842LT+7150G	VG7842LT+7153G	VG7842LT+7152G
VG7842NT	1"	11.6	86 / 100	VG7842NT+7150G	VG7842NT+7153G	VG7842NT+7152G
VG7842PT	1-1/4"	18.5	52 / 57	VG7842PT+7150G	VG7842PT+7153G	VG7842PT+7152G
VG7842RT	1-1/2"	28.9	34 / 36	VG7842RT+7150G	VG7842RT+7153G	VG7842RT+7152G
VG7842ST	2"	46.2	21 / 22	VG7842ST+7150G	VG7842ST+7153G	VG7842ST+7152G
Two-Way Push-Down-to-Close – Union Sweat End Connections						
VG7281CT	1/2"	0.73	345	VG7281CT+7150G	VG7281CT+7153G	VG7281CT+7152G
VG7281ET	1/2"	1.8	345	VG7281ET+7150G	VG7281ET+7153G	VG7281ET+7152G
VG7281GT	1/2"	4.6	216	VG7281GT+7150G	VG7281GT+7153G	VG7281GT+7152G
VG7281LT	3/4"	7.3	138	VG7281LT+7150G	VG7281LT+7153G	VG7281LT+7152G
VG7281NT	1"	11.6	86	VG7281NT+7150G	VG7281NT+7153G	VG7281NT+7152G
VG7281PT	1-1/4"	18.5	52	VG7281PT+7150G	VG7281PT+7153G	VG7281PT+7152G
VG7281RT	1-1/2"	28.9	34	VG7281RT+7150G	VG7281RT+7153G	VG7281RT+7152G
VG7281ST	2"	46.2	21	VG7281ST+7150G	VG7281ST+7153G	VG7281ST+7152G

VG7000 Series Brass Trim Globe Valves with VA-715x Series Electric Actuators (Continued)

VG7000 Brass Trim Globe Valve with VA-715x Series Non-Spring Return Electric Actuator (Part 2 of 2)

Actuator Code				VA-7150-1001	VA-7153-1001	VA-7152-1001
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		
Three-Way Mixing – Union Sweat End Connections						
VG7882CT	1/2"	0.73	345 / 345	VG7882CT+7150G	VG7882CT+7153G	VG7882CT+7152G
VG7882ET	1/2"	1.8	345 / 345	VG7882ET+7150G	VG7882ET+7153G	VG7882ET+7152G
VG7882GT	1/2"	4.6	216 / 257	VG7882GT+7150G	VG7882GT+7153G	VG7882GT+7152G
VG7882LT	3/4"	7.3	138 / 153	VG7882LT+7150G	VG7882LT+7153G	VG7882LT+7152G
VG7882NT	1"	11.6	86 / 100	VG7882NT+7150G	VG7882NT+7153G	VG7882NT+7152G
VG7882PT	1-1/4"	18.5	52 / 57	VG7882PT+7150G	VG7882PT+7153G	VG7882PT+7152G
VG7882RT	1-1/2"	28.9	34 / 36	VG7882RT+7150G	VG7882RT+7153G	VG7882RT+7152G
VG7882ST	2"	46.2	21 / 22	VG7882ST+7150G	VG7882ST+7153G	VG7882ST+7152G
Two-Way Push-Down-to-Close – 3/8 in. Union Sweat End Connections						
VG7271CT	1/2"	0.73	345	VG7271CT+7150G	VG7271CT+7153G	VG7271CT+7152G
VG7271ET	1/2"	1.8	345	VG7271ET+7150G	VG7271ET+7153G	VG7271ET+7152G
VG7271GT	1/2"	4.6	216	VG7271GT+7150G	VG7271GT+7153G	VG7271GT+7152G
Three-Way Mixing – 3/8 in. Union Sweat End Connections						
VG7872CT	1/2"	0.73	345 / 345	VG7872CT+7150G	VG7872CT+7153G	VG7872CT+7152G
VG7872ET	1/2"	1.8	345 / 345	VG7872ET+7150G	VG7872ET+7153G	VG7872ET+7152G
VG7872GT	1/2"	4.6	216 / 257	VG7872GT+7150G	VG7872GT+7153G	VG7872GT+7152G
Two-Way Push-Down-to-Close – 3/4 in. Union Sweat End Connections						
VG7291CT	1/2"	0.73	345	VG7291CT+7150G	VG7291CT+7153G	VG7291CT+7152G
VG7291ET	1/2"	1.8	345	VG7291ET+7150G	VG7291ET+7153G	VG7291ET+7152G
VG7291GT	1/2"	4.6	216	VG7291GT+7150G	VG7291GT+7153G	VG7291GT+7152G
Three-Way Mixing – 3/4 in. Union Sweat End Connections						
VG7892CT	1/2"	0.73	345 / 345	VG7892CT+7150G	VG7892CT+7153G	VG7892CT+7152G
VG7892ET	1/2"	1.8	345 / 345	VG7892ET+7150G	VG7892ET+7153G	VG7892ET+7152G
VG7892GT	1/2"	4.6	216 / 257	VG7892GT+7150G	VG7892GT+7153G	VG7892GT+7152G
Two-Way Push-Down-to-Close – Union Globe End Connections						
VG7251CT	1/2"	0.73	345	VG7251CT+7150G	VG7251CT+7153G	VG7251CT+7152G
VG7251ET	1/2"	1.8	345	VG7251ET+7150G	VG7251ET+7153G	VG7251ET+7152G
VG7251GT	1/2"	4.6	216	VG7251GT+7150G	VG7251GT+7153G	VG7251GT+7152G
VG7251LT	3/4"	7.3	138	VG7251LT+7150G	VG7251LT+7153G	VG7251LT+7152G
VG7251NT	1"	11.6	86	VG7251NT+7150G	VG7251NT+7153G	VG7251NT+7152G
VG7251PT	1-1/4"	18.5	52	VG7251PT+7150G	VG7251PT+7153G	VG7251PT+7152G
VG7251RT	1-1/2"	28.9	34	VG7251RT+7150G	VG7251RT+7153G	VG7251RT+7152G
Two-Way Push-Down-to-Close – Union Angle End Connections						
VG7551CT	1/2"	0.73	345	VG7551CT+7150G	VG7551CT+7153G	VG7551CT+7152G
VG7551ET	1/2"	1.8	345	VG7551ET+7150G	VG7551ET+7153G	VG7551ET+7152G
VG7551GT	1/2"	4.6	216	VG7551GT+7150G	VG7551GT+7153G	VG7551GT+7152G
VG7551LT	3/4"	7.3	138	VG7551LT+7150G	VG7551LT+7153G	VG7551LT+7152G
VG7551NT	1"	11.6	86	VG7551NT+7150G	VG7551NT+7153G	VG7551NT+7152G
VG7551PT	1-1/4"	18.5	52	VG7551PT+7150G	VG7551PT+7153G	VG7551PT+7152G
VG7551RT	1-1/2"	28.9	34	VG7551RT+7150G	VG7551RT+7153G	VG7551RT+7152G

VG7000 Series Brass Trim Globe Valves with VA-715x Series Electric Actuators (Continued)

Technical Specifications

VG7000 Brass Trim Globe Valves with VA-715x Series Non-Spring Return Electric Actuators		
Service ¹		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
Rangeability ²		25:1
Leakage		0.01% of Maximum Flow per ANSI/FCI 70-2, Class 4
Actuator Ambient Operating Temperature Limits		0 to 140°F (-18 to 60°C)
Actuator Input Signal	VA-7150-1001	24 VAC Three-Wire Floating Control
	VA-7152-1001	0 to 10 VDC Proportional Control
	VA-7153-1001	24 VAC Three-Wire Floating Control with 0 to 2000 ohm feedback potentiometer for 25/32 in. valve stroke
Actuator Power Requirements	VA-7150-1001	24 VAC (20 to 30 VAC), 50/60 Hz, 2.7 VA Nominal
	VA-7152-1001	24 VAC (20 to 30 VAC), 50/60 Hz, 4.7 VA Nominal
	VA-7153-1001	24 VAC (20 to 30 VAC), 50/60 Hz, 2.7 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.