

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

Description

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

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

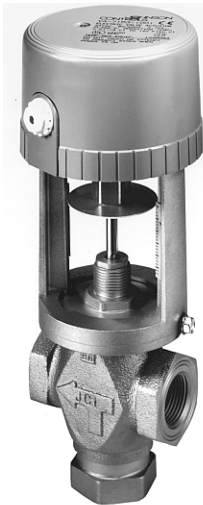
Features

- 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 Series 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 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.



VA-715x Series Electric Actuator Mounted on a 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 Number				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 Code Number	Size, in.	Cv	Closeoff psig	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 Number				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 Code Number	Size, in.	Cv	Closeoff psig	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 Series Brass Trim Globe Valves with VA-715x Series Electric 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		> 25:1 According to EN60534-2-4 for the 1/2 in. Size, Cv 0.73, Valve Bodies > 100:1 According to EN60534-2-4 for All Other Valves
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 2,000 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
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.