

# 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.

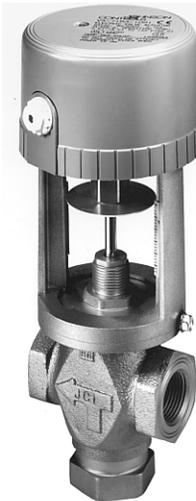
## Features

- 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

**WARNING**

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**

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

## 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°F to 284°F Fluid Temperature, 38 psig Saturated Steam		
Valve Code Number	Size, in.	Cv	Closeoff psig	Non-Spring Return		
<b>Two-Way Push-Down-to-Close — NPT End Connections</b>						
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
<b>Three-Way Mixing — NPT End Connections</b>						
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
<b>Two-Way Push-Down-to-Close — Union Sweat End Connections</b>						
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

### 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°F to 284°F Fluid Temperature, 38 psig Saturated Steam		
Valve Code Number	Size, in.	Cv	Closeoff psig	Non-Spring Return		
<b>Three-Way Mixing — Union Sweat End Connections</b>						
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
<b>Two-Way Push-Down-to-Close — 3/8 in. Union Sweat End Connections</b>						
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
<b>Three-Way Mixing — 3/8 in. Union Sweat End Connections</b>						
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
<b>Two-Way Push-Down-to-Close — 3/4 in. Union Sweat End Connections</b>						
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
<b>Three-Way Mixing — 3/4 in. Union Sweat End Connections</b>						
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
<b>Two-Way Push-Down-to-Close — Union Globe End Connections</b>						
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
<b>Two-Way Push-Down-to-Close — Union Angle End Connections</b>						
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

### Technical Specifications

VG7000 Series Brass Trim Globe Valves with VA-715x Series Electric 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 through 1-1/4 in. Valves 30 psig (207 kPa) for 1-1/2 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>		> 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
<b>Leakage</b>		0.01% of Maximum Flow per ANSI/FCI 70-2, Class 4
<b>Actuator Ambient Operating Temperature Limits</b>		0°F to 140°F (-18°C to 60°C)
<b>Actuator Input Signal</b>	<b>VA-7150-1001</b>	24 VAC Three-Wire Floating Control
	<b>VA-7152-1001</b>	0 to 10 VDC Proportional Control
	<b>VA-7153-1001</b>	24 VAC Three-Wire Floating Control with 0 to 2,000 Ohm Feedback Potentiometer for 25/32 in. Valve Stroke
<b>Actuator Power Requirements</b>	<b>VA-7150-1001</b>	24 VAC (20 to 30 VAC), 50/60 Hz, 2.7 VA Nominal
	<b>VA-7152-1001</b>	24 VAC (20 to 30 VAC), 50/60 Hz, 4.7 VA Nominal
	<b>VA-7153-1001</b>	24 VAC (20 to 30 VAC), 50/60 Hz, 2.7 VA Nominal
<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.

#### **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