



# CONTROL VALVES

## ELECTRIC DIRECT-MOUNT GLOBE VALVE S.R. & N.S.R. ACTUATORS VA-4233, VA-7000 SERIES



### DESCRIPTION

The **Johnson Controls VA-7000 Series** is a family of direct-mount non-spring return actuators for use with 1/2" to 2" JCI VG7000 valves in a wide range of HVAC applications. They are available for three-wire floating control or proportional control. The **VA-4233 Series** is a family of direct-mount spring return actuators, available for two-position, floating, or proportional control.

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### FEATURES

- *Direct mount to JCI Globe Valve*
- *No separate linkages*
- *Compact size*
- *Simple installation and adjustment*
- *Economical, yet powerful*



**VA-4233-AGA-2  
Spring Return  
Valve Actuator**



**VA-7150  
Non-Spring Return  
Valve Actuator**

### COMMON SPECIFICATIONS

<b>Supply Voltage</b>	24 VAC @ 12 VA, 50/60 Hz	<b>Spring Return Time</b>	15 seconds (VA-4233 only)
<b>Noise</b>	35 dBa @ 3.3 ft (1m)	<b>Life Expectancy</b>	100,000 full stroke cycles
<b>Auxiliary Contacts</b>	Two SPDT; 50 VA pilot duty @ 24 VAC; 5.8A resistive, 1/4 HP, 275 VA pilot duty @ 120 VAC (VA-4233-GGC only)	<b>Operating Humidity</b>	10% to 90% RH non-condensing
		<b>Warranty</b>	1 year

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INDIVIDUAL SPECIFICATIONS										
Model	Force	Supply VA	Control Signal	Input Impedance	Feedback	Action	Valve Mounting	Operating Temperature	Stroke	Stroke Time
VA-7150-1001	90 lbf (400 N)	2.7 VA	Floating			NSR, DA/RA by wiring	Set Screw to Bonnet, 1/4-28 UNF-2B threads for valve stem	0° to 140°F (-18° to 60°C)	.78" (2.0 cm) maximum	165 seconds
VA-7152-1001		4.7 VA	Prop. 0-5 VDC, 0-10 VDC	100 k		NSR, DA/RA by jumpers				
VA-7200-1001	180 lbf (800 N)	6.7 VA	Floating			NSR, DA/RA by wiring	Set screw to bonnet, stem nut connector	23° to 131°F (-5° to 55°C)	.91" (2.3 cm) maximum	62 seconds
VA-7202-1001		8.7 VA	Prop. 0-10 VDC, 0-20 mA	100 k (0-10 VDC); 500 (0-20 mA)		NSR, DA/RA by jumpers				
VA-4233-AGA-2	61 lbf (271 N)	12 VA	Floating			SR stem up, DA/RA by wiring	Set screw to bonnet, stem nut connector	32° to 122°F (0° to 50°C)	.91" (2.3 cm) maximum	76 seconds
VA-4233-BGA-2			Two-position			SR stem up, power stem down				
VA-4233-GGA-2			Prop. 0/2-10 VDC, 6-9 VDC, 4-20 mA	200 k (2-10 VDC); 500 (4-20 mA)		SR stem up, DA/RA by switch				
VA-4233-GGC-2*			Prop. 0/2-10 VDC, 6-9 VDC, 4-20 mA	200 k (2-10 VDC); 500 (4-20 mA)		SR stem up, DA/RA by switch				
VA7820-HGA-2	180 lbf (800 N)	11 VA	Prop. 0/2-10 VDC, 0/4-20 mA	100 k (0-10 VDC); 500 (0-20 mA)	0/2-10 VDC	SR stem up, DA/RA by DIP switch		23° to 131°F (-5° to 55°C)	1.0" (2.5 cm) maximum	114 or 57 seconds
VA7830-HGA-2			Prop. 0/2-10 VDC, 0/4-20 mA	100 k (0-10 VDC); 500 (0-20 mA)		SR stem down, DA/RA by DIP switch				

\* Includes 2 SPDT Auxiliary Switches  
**SR** = Spring Return  
**NSR** = Non-Spring Return

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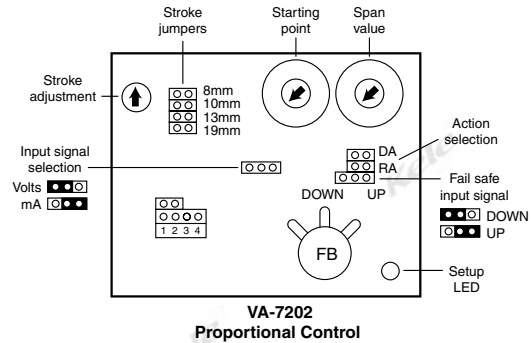
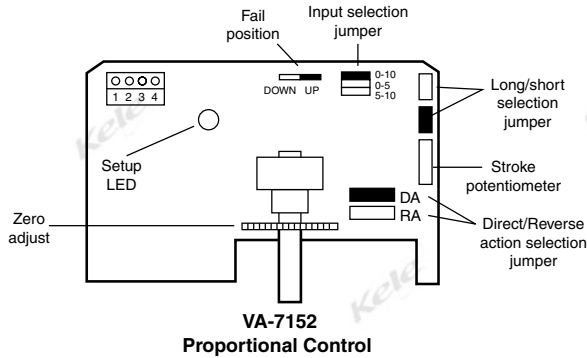
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### PROPORTIONAL CONTROL SETUP COMPONENTS



**DA (direct acting)**  
Signal increase extends stem downward

**RA (reverse acting)**  
Signal increase retracts stem upward

### DIMENSIONS

Model	Dimensions	Enclosure Rating	Wiring	Conduit Connection	Weight
VA-7150-1001	6.1"H x 3.8" Diameter (15.4 x 9.8 cm)	NEMA 1 (IP40)	Screw terminals, 24 to 14 AWG	Cable gland, 1/2" (6.4 mm) maximum diameter	1.7 lb (0.8 Kg)
VA-7152-1001	6.1"H x 3.8" Diameter (15.4 x 9.8 cm)	NEMA 1 (IP40)	Screw terminals, 24 to 14 AWG	Cable gland, 1/2" (6.4 mm) maximum diameter	1.7 lb (0.8 Kg)
VA-7200-1001	7.8"H x 4.2" Diameter (19.7 x 10.6 cm)	NEMA 2 (IP42)	Screw terminals, 24 to 14 AWG	Two 7/8" (2.2 cm) knockouts for 1/2" fittings	2.2 lb (1.0 Kg)
VA-7202-1001	7.8"H x 4.2" Diameter (19.7 x 10.6 cm)	NEMA 2 (IP42)	Screw terminals, 24 to 14 AWG	Two 7/8" (2.2 cm) knockouts for 1/2" fittings	2.2 lb (1.0 Kg)
VA-4233-AGA-2	6.8"H x 4.1"W x 3.3"D (17.3 x 10.4 x 9.1 cm)	NEMA 2 (IP42)	48" (12.2 cm) cable with 20 AWG	Fitting for 1/2" conduit	3.1 lb (1.4 Kg)
VA-4233-BGA-2	6.8"H x 4.1"W x 3.3"D (17.3 x 10.4 x 9.1 cm)	NEMA 2 (IP42)	48" (12.2 cm) cable with 20 AWG	Fitting for 1/2" conduit	3.1 lb (1.4 Kg)
VA-4233-GGA-2	6.8"H x 4.1"W x 3.3"D (17.3 x 10.4 x 9.1 cm)	NEMA 2 (IP42)	48" (12.2 cm) cable with 20 AWG	Fitting for 1/2" conduit	3.1 lb (1.4 Kg)
VA-4233-GGC-2	6.8"H x 4.1"W x 3.3"D (17.3 x 10.4 x 9.1 cm)	NEMA 2 (IP42)	48" (12.2 cm) cable with 18 AWG	Fitting for 1/2" conduit	3.1 lb (1.4 Kg)
VA7820-HGA-2	9.1"H x 4.5"W x 8.4"D (23.1 x 11.5 x 21.2 cm)	NEMA 2 (IP54)	48" (12.2 cm) UL 758 AWM cable, 18 AWG	Integral connector for 3/8" (1.0 cm) flex conduit	7.3 lb (3.3 Kg)
VA7830-HGA-2	9.1"H x 4.5"W x 8.4"D (23.1 x 11.5 x 21.2 cm)	NEMA 2 (IP54)	48" (12.2 cm) UL 758 AWM cable, 18 AWG	Integral connector for 3/8" (1.0 cm) flex conduit	7.3 lb (3.3 Kg)

# CONTROL VALVES

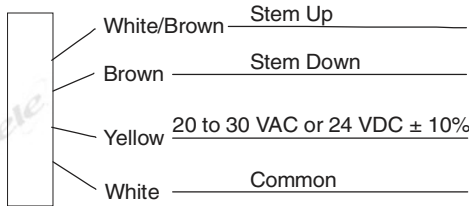
## ELECTRIC DIRECT-MOUNT GLOBE VALVE S.R. & N.S.R. ACTUATORS VA-4233, VA-7000 SERIES



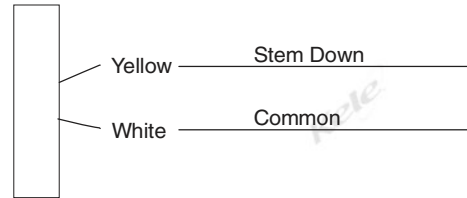
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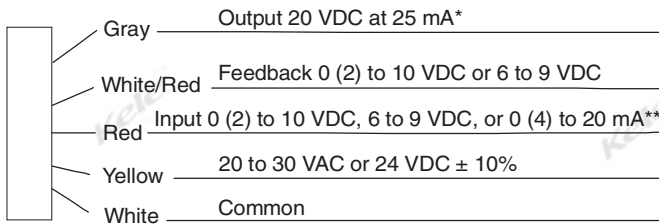
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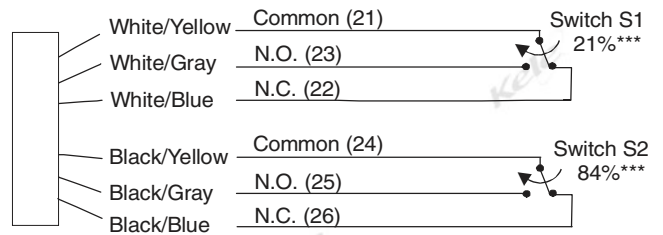
**VA-4233-AGx**  
Floating Control



**VA-4233-BGx**  
On/Off Control



**VA-4233-GGx**  
Proportional Control



**Auxiliary Switch**

\* Available on VA-4233-GGx-2MP models only.

\*\* The control inputs shown will move the valve stem down as the control input increases, with the DA/RA switch in the DA mode.

\*\*\* Refers to a full actuator stroke of 29/32 in. (23 mm).  
Switches are readjustable to all applicable Johnson Controls stroke ranges.

### ORDERING INFORMATION

MODEL	DESCRIPTION
VA-7150-1001	90 lbf, non-spring return, floating control, for 1/2" to 1-1/4" valves
VA-7200-1001	180 lbf, non-spring return, floating control, for 1-1/2" and 2" valves
VA-7152-1001	90 lbf, non-spring return, proportional (0-5, 0-10 VDC) control, for 1/2" to 1-1/4" valves
VA-7202-1001	180 lbf, non-spring return, proportional (0-10 VDC, 0-20 mA) control, for 1-1/2" and 2" valves
VA-4233-AGA-2	61 lbf, spring return stem up, floating control, for 1/2" to 1-1/4" valves
VA-4233-BGA-2	61 lbf, spring return stem up, two-position control, for 1/2" to 1-1/4" valves
VA-4233-GGA-2	61 lbf, spring return stem up, proportional control, for 1/2" to 1-1/4" valves
VA-4233-GGC-2	61 lbf, spring return stem up, proportional control, with auxiliary switches, for 1/2" to 1-1/4" valves
VA7820-HGA-2	180 lbf, spring return stem up, proportional control, for 1/2" to 2" valves
VA7830-HGA-2	180 lbf, spring return stem down, proportional control, for 1/2" to 2" valves

	RELATED PRODUCTS
M9000-200	Commissioning tool
KOV-2	NEMA 3R fabric weather shield, 8" dia. x 10"H, fits Honeywell ML6420/7420/6425/7425 and Belimo NV/NVF

	ACCESSORIES
V-9999-BC1	Kit for 1/2" to 1-1/4" Barber Colman VB9000 Series valves
VG7000-1016	Bonnet adapter for replacing M100, V-400, V-500, MP8000 Series on VG7000 valves