

VA9109-xGx-4 Series Electric Non-Spring Return Valve Actuators

Description

The VA9109 Series Actuators are direct-mount, non-spring return electric valve actuators that operate on AC 24 V power. Use these synchronous motor-driven actuators to provide accurate positioning on Johnson Controls® VG1000 Series DN15, DN20, DN25, DN32, DN40, and DN50 (1/2, 3/4, 1, 1-1/4, 1-1/2, and 2 in.) ball valves in HVAC applications.

The VA9109 Series Electric Non-Spring Return Actuators provide a running torque of 80 lb-in (9 N·m). The nominal travel time is 60 seconds at 60 Hz (72 seconds at 50 Hz) for 90° of rotation.

Refer to the *VA9109-xGx-4 Series Electric Non-Spring Return Valve Actuators Product Bulletin (LIT-12012001)* for important product application information

Features

- 35 dBA nominal audible noise rating
- Synchronous drive
- 100,000 cycle rating
- Direct mounting with single screw
- Manual override
- 3/8 in. flexible metal conduit connector on VA-9109-xGA-4 model
- Optional M9000-551 Thermal Barrier
- 5-year warranty



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Repair Information

If the VA9109 Series Electric Non-Spring Return Valve Actuator fails to operate within its specifications, replace the unit. For a replacement actuator, contact the nearest Johnson Controls® representative.

Selection Chart

Code Number	Rotation Time For 90°	Power Requirement	Power Consumption	Input Signal			Position Feedback	Electrical Connection	Auxiliary Switches
				On/Off and Floating Point Without Timeout	On/Off and Floating Point With Timeout	0 (2) to 10 VDC 0 (4) to 20 mA (with 500 ohm Resistor)			
	Power On – Running (Seconds)	24 VAC + 25%/-15% at 50/60 Hz	VA Rating, Transformer Sizing				0(2) to 10 VDC	1/4 in. Spade Terminal	2 x 1.5 A Inclusive 24 VAC 3.0 A Resistive 24 VAC
VA9109-AGA-4	60 s at 60 Hz 72 s at 50 Hz	X	2.5	X				X	
VA9109-GGA-4	60 s at 60 Hz 72 s at 50 Hz	X	3.2			X	X	X	
VA9109-IGA-4	60 s at 60 Hz 72 s at 50 Hz	X	2.8		X			X	
VA9109-AGC-4	60 s at 60 Hz 72 s at 50 Hz	X	2.5	X				X	X
VA9109-GGC-4	60 s at 60 Hz 72 s at 50 Hz	X	3.2			X	X	X	X
VA9109-IGC-4	60 s at 60 Hz 72 s at 50 Hz	X	2.8		X			X	X

VA9109-xGx-4 Series Electric Non-Spring Return Valve Actuators (Continued)

Technical Specifications

Power Requirement		24 VAC +25%/-15% at 50/60 Hz
Control Type	VA9109-AGx-4	Floating Control without Timeout
	VA9109-GGx-4	Proportional Control
	VA9109-IGx-4	Floating or On/Off Control with Timeout
Control Signal	VA9109-AGx-4	AC 24 V +25%/-20% at 50/60 Hz, Class 2 or SELV without Timeout
	VA9109-GGx-4	DC 0 (2) to 10 V or 0 (4) to 20 mA with Field-Furnished 500 ohm Resistor
	VA9109-IGx-4	AC 24 V +25%/-20% at 50/60 Hz, Class 2 or SELV with Timeout
Control Input Impedance	VA9109-GGx-4	Voltage Input: 200,000 ohm Current Input: 500 ohm with Field-Furnished 500 ohm Resistor
Running Torque		80 lb-in (9 N-m)
Travel Time	VA9109-xGx-4	60 Seconds at 60 Hz (72 Seconds at 50 Hz) for 90° of Rotation
Rotation Range		93° ±3°, CW or CCW
Cycles		100,000 Full Stroke Cycles; 2,500,000 Repositions at Rated Running Torque
Audible Noise Rating		35 dBA Nominal at 39-13/32 in. (1 m)
Electrical Connections		1/4 in. Spade Terminal
Enclosure		IP32
Ambient Conditions	Operating	-4 to 125°F (-20 to 52°C); 95% RH Maximum, Noncondensing
	Storage	-40 to 176°F (-40 to 80°C); 95% RH Maximum, Noncondensing
Fluid Temperature Limits (Actuator and Valve Assembly)	VG12x1 and VG18x1 Series	23 to 203°F (-5 to 95°C)
	VG12x5 and VG18x5 Series	-22 to 212°F (-30 to 100°C)
	VG12x5 and VG18x5 Series with M9000-561 Thermal Barrier Installed	-22 to 284°F (-30 to 140°C) water; 15 psig (103 kPa) at 250°F (121°C) Saturated Steam
Power	VA9109-AGx-4	2.5 VA
	VA9109-GGx-4	3.2 VA
	VA9109-IGx-4	2.8 VA
Auxiliary Switch Rating	VA-9109xGC-4	Two single pole/double-throw (SPDT) switches rated at 26 VAC 1.5 A inductive, 3.0 A resistive, 35 VA maximum per switch, Class 2
Compliance	United States	UL Listed, File E27734, CNN XAPX, UL 873 Temperature Indicating and Regulating Equipment, Suitable for use in Plenums and other air handling spaces. (UL 1995, Heating and Cooling Equipment)
	Canada	cUL Listed, File E27734, CNN XAPX7, UL 873 and CSA C22.2 No. 24-93; Temperature Indicating and Regulating Equipment, Suitable for use in Plenums and other air handling spaces. (CSA 22.2 No. 236/UL 1995 Heating and Cooling Equipment)
	Europe	CE Mark – Johnson Controls, Inc., declares that this product is in compliance with the essential requirements and other relevant provisions of the EMC Directive 2004/108/EC and the Low Voltage Directive 2006/95/EC.
	Australia and New Zealand	C-Tick Mark, Australia/NZ Emissions Compliant
Shipping Weight		1.25 lb (0.55 kg)

