

M9000-51x Series Ball Valve Linkage Kits

Description

M9000-51x Series Valve Linkage Kits are designed specifically for field mounting Johnson Controls® M9124 Series Non-Spring Return and M9220 Series Spring Return Electric Actuators to Johnson Controls VG1000 Series Ball Valves in sizes 1 through 6 in. (DN25 through DN150). These sturdy linkage kits provide stable actuator mounting while preventing loading on the valve stem and stem seals, to ensure longer seal life.

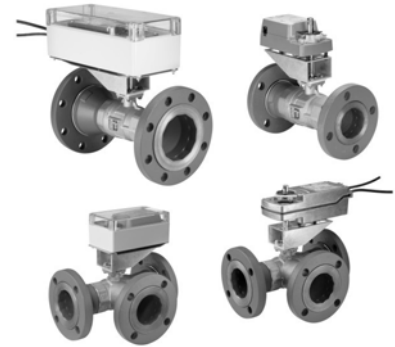
Refer to the *M9000-51x Series Ball Valve Linkage Kits Product Bulletin (LIT-977354)*, *VG1000 Forged Brass Ball Valves Product Bulletin (LIT-977132)*, or *VG1000 Series Flanged Ball Valves Product Bulletin (LIT-12011228)*, depending on the linkage kit you are using, for important product application and single point of contact information.

Features

- multi-position setup allows the actuator and linkage kit to be positioned in 45-degree increments, facilitating installation in confined areas

- adjustable anti-rotation slider allows one linkage to accommodate multiple sizes of valve bodies and electric actuators
- index markings on drive shaft and mounting bracket allow the valve to be positioned in increments from fully open to fully closed, providing visual indication of the current valve position during setup and operation
- installation requiring no special tools facilitates quick and easy installation
- thermal spacer between valve and linkage reduces temperature and condensation from the valve to the actuator
- dual-centering bearing design maintains accurate stem alignment eliminating side loading on the VG1000 Series Ball Valve stem and stem seal to ensure longer seal life (M9000-51x Series Ball Valve Linkage Kit only)
- sturdy aluminum construction provides exceptional strength and stability (M9000-51x Series Ball Valve Linkage Kit only)

M9000-51x Series Linkage Kits Used to Field Mount M9000 Series Electric Actuators to VG1000 Series Ball Valves



Repair Information

If the M9000-5xx Series Ball Valve Linkage Kit fails to operate within its specifications, replace the unit. For a replacement linkage kit, contact the nearest Johnson Controls® representative.

Selection Charts

Valid Ball Valve, Electric Actuator, and Linkage Kit Combinations for Field Assembly

Valve Size, in. (DN)	Valve Code Number	Actuator Base Number ¹	Linkage Kit Code Number	Optional Weathershield
2-1/2 (DN65)	VG12A5Gx, VG18A5Gx VG12A5Kx, VG18A5Kx	M9124	M9000-518	M9000-330
		M9220	M9000-519	M9000-340
3 (DN80)	VG12A5Hx, VG18A5Hx VG12A5Lx, VG18A5Lx	M9124	M9000-518	M9000-330
		M9220	M9000-519	M9000-340
4 (DN100)	VG12A5Jx, VG18A5Jx VG12A5MZ, VG18A5MZ	M9124	M9000-518	M9000-330
		M9220	M9000-519	M9000-340
5 (DN125)	VG12A5NY, VG18A5NY	M9124	M9000-518	M9000-330
		M9220	M9000-519	M9000-340
6 (DN150)	VG12A5PZ, VG18A5PZ	M9124	M9000-518	M9000-330
		M9220	M9000-519	M9000-340

1. M9124 Series are Non-Spring Return Actuators; M9220 Series are Spring-Return Actuators.

Linkages for Discontinued Series Ball Valves

Valve Size, in. (DN)	Valve Code Number	Actuator Base Number	Linkage Kit Code Number
1/2 (DN15)	VG1243Ax, VG1644Ax	VA9300	M9000-561
		VA9208	
3/4 (DN20)	VG1243BC, VG1644BB	VA9300	M9000-561
		VA9208	
1 (DN25)	VG1243CC, VG1644CB	M9124	M9000-518
		M9220	M9000-519
1-1/4 (DN32)	VG1643DC, VG1644DB	M9124	M9000-518
		M9220	M9000-519
2 (DN50)	VG1243EC, VG1644EB	M9124	M9000-518

Repair Parts

Repair Parts (Order Separately)

Code Number	Description
M9000-600	Anti-rotation slider; includes bracket, carriage screw, split lock washer, flat washer, and wing nut
M9000-601	Mounting screws and nuts; includes four M5 (5 mm) x 16 mm machine screws and four M5 (5 mm) serrated washer head nuts
M9000-602	Drive shaft

M9000-51x Series Ball Valve Linkage Kits (Continued)

Technical Specifications

M9000-51x Series Ball Valve Linkage Kits	
Service ¹	Hot water, chilled water, 50/50 glycol solutions, and low pressure steam
Maximum Actuator Fluid Temperature Limits	284°F (140°C)
Maximum Steam Service ²	15 psig saturated steam 250°F (121°C)
	25 psig saturated steam 267°F (130°C)
Minimum Ambient Operating Temperature	-40°F (-40°C)
	-4°F (-20°C)
Maximum Ambient Operating Temperature	122°F (50°C)
	131°F (55°C)
Material	Bracket: Aluminum
	Anti-Rotation Slider: 1018 Steel
	Drive Shaft: 12L14 Steel
	Standoff: Thermoplastic Resin
	Thermo-Isolator: PTFE (Polytetrafluoroethylene)
Shipping Weight	1.5 lb (0.68 kg)

1. Refer to VDI 2035 Guideline for proper water treatment.

2. In steam applications, install the valve with the stem horizontal to the piping, and wrap the valve and piping with insulation.