

M9000-53x Series

# Cast Iron Flanged Valve Linkage Kits



**M9000-53x Series  
Cast Iron Flanged Valve Linkage Kit**

## Description

The M9000-53x Series Cast Iron Flanged Valve Linkage Kits are designed specifically for field mounting Johnson Controls M9116 and M9124 Series Non-Spring Return (NSR) and M9216 Series Spring Return (SR) Electric Actuators to Johnson Controls VG2000 Series Cast Iron Flanged Valves in sizes 2-1/2 through 6 in. Kits are available to fit older Johnson Controls valves for easy conversion from pneumatic or older electric actuator installations.

## Features

- dedicated models facilitate quick and easy installation regardless of the valve stroke and electric actuator chosen
- single anti-rotation bracket allows one linkage to accommodate spring return and non-spring return electric actuators

- two-bolt coupler clamp provides quick and easy coupling of the linkage to the valve stem
- easy to convert from single to tandem actuators to accommodate changing shutoff requirements

## To Order

Specify the code number in the selection chart on the following page.

## Accessories

Code Number	Description
<b>M9000-610</b>	Tandem Adapter Kit (converts single actuator linkage kit into tandem actuator linkage kit). Includes: Shaft with spring clip, cable, strain relief, Anti-Rotation bracket with screws, and two plug-in terminal blocks.

## Specifications

M9000-53x Series Cast Iron Flanged Valve Linkage Kits	
<b>Service (a)</b>	Hot Water, Chilled Water, 50/50 Glycol Solutions, and 15 psig (103 kPa) Saturated Steam for Heating, Ventilating, and Air Conditioning (HVAC) Systems
<b>Force Output</b>	<b>M9000-530</b> 378 lb (1684 N) minimum with M9116 Series Actuator 605 lb (2691 N) minimum with M9124 Series Actuator 286 lb (1552 N) minimum with M9216 Series Actuator
	<b>M9000-531</b> 238 lb (1060 N) minimum with M9116 Series Actuator 380 lb (1694 N) minimum with M9124 Series Actuator 180 lb (803 N) minimum with M9216 Series Actuator
	<b>M9000-532</b> 761 lb (3385 N) minimum with Tandem M9124 Series Actuators 361 lb (1605 N) minimum with Tandem M9216 Series Actuators
	<b>M9000-533</b> 315 lb (1405 N) minimum with M9124 Series Actuator
	<b>M9000-534</b> 631 lb (2806 N) minimum with Tandem M9124 Series Actuators 300 lb (1332 N) minimum with Tandem M9216 Series Actuators
	<b>M9000-535</b> 280 lb (1248 N) minimum with M9124 Series Actuator
	<b>M9000-536</b> 561 lb (2495 N) minimum with Tandem M9124 Series Actuators 266 lb (1183 N) minimum with Tandem M9216 Series Actuators
	<b>M9000-537</b> 761 lb (3385 N) minimum with Tandem M9124 Series Actuators 361 lb (1605 N) minimum with Tandem M9216 Series Actuators
	<b>Valve Stroke</b>
<b>M9000-531</b> 1-1/8 in. (29 mm) (Nominal)	
<b>M9000-532</b> 1-1/8 in. (29 mm) Nominal	
<b>M9000-533</b> 1-3/8 in. (35 mm) (Nominal)	
<b>M9000-534</b> 1-3/8 in. (35 mm) Nominal	
<b>M9000-535</b> 1-1/2 in. (38 mm) (Nominal)	
<b>M9000-536</b> 1-1/2 in. (38 mm) Nominal	
<b>M9000-537</b> 1-1/8 in. (29 mm) Nominal	
<b>Minimum Ambient Operating Temperature (Limited by the Valve)</b>	35°F (2°C) in Water and Steam Applications
<b>Maximum Ambient Operating Temperature (b) (Limited by the Actuator)</b>	122°F (50°C) in Water Applications; 100°F (38°C) in Steam Applications Between 212 and 250°F (100 and 121°C)
<b>Shipping Weight</b>	7-1/2 lb (3.4 kg)

(a) Proper water treatment is recommended; refer to VDI 2035 Standard.

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

## M9000-53x Series Cast Iron Flanged Valve Linkage Kits (Continued)

### Selection Chart

Valve Size, in.	Valve Code Number	Discontinued Valve Code Numbers that Are Compatible with Linkage Kit	Nominal Valve Stroke, in.	Valve Stem Dia., in.	Actuator Base Number <sup>(a)</sup>	Number of Actuators Required	Linkage Kit Code Number
2-1/2	VG2231TM VG2431TM VG2831TM	V-5252-4, -5, -6, -7, -8, -32, -33 V-5462-6, -7, -34 V-5842-7, -8, -31 VB-3752-19 VB-3970-11 VB-4322-9	3/4	3/8	M9116 M9124 M9216	One	M9000-530 <sup>(b)</sup>
	VG2231UM VG2431UM VG2831UM	V-5252-9, -10, -11, -12, -13, -34, -35 V-5462-8, -9, -35 V-5842-9, -10, -32 VB-3752-22 VB-3970-14 VB-4322-11					M9000-531 <sup>(c)</sup>
3	VG2231UN VG2431UN VG2831UN	V-5462-10, -36 V-5842-17, -18, -33	1-1/8	1/2	M9124 M9216 <sup>(d)</sup>	Two	M9000-532 M9000-537
	VG2231VM VG2431VM VG2831VM	V-5252-14, -36 V-5462-11, -12, -37 V-5842-9, -10, -32 VB-3752-22 VB-3970-14 VB-4322-11		3/8	M9124 M9216	One	M9000-531 <sup>(c)</sup>
4	VG2231VN VG2431VN VG2831VN	V-5252-15, -16, -37 V-5462-13, -14, -38 V-5842-11, -12, -34	1-1/8	3/8	M9124 M9216 <sup>(d)</sup>	Two	M9000-532 M9000-537
	VG2231WN VG2431WN VG2831WN	V-5252-17, -18, -38 V-5462-15, -16, -39 V-5842-13, -14, -35 VB-3752-28 VB-3970-20 VB-4322-19					1-3/8
5	VG2231YN VG2431YN VG2831YN	V-5252-19, -39 V-5462-17, -18, -40 V-5842-15, -16, -36 VB-3752-31 VB-3970-23 VB-4322-18	1-1/2	1/2	M9124 M9216 <sup>(d)</sup>	Two	M9000-534 M9000-536
	VG2231VN VG2431VN VG2831VN	V-5252-15, -16, -37 V-5462-13, -14, -38 V-5842-11, -12, -34					3/8

(a) M9116 and M9124 Series Electric Actuators are non-spring return. M9216 Series Electric Actuators are spring return.

(b) The M9000-530 cannot be retrofitted with the M9000-610 Tandem Adapter Kit.

(c) Linkages can be retrofitted with a tandem actuator using an M9100-610 Tandem Adapter Kit.

(d) M9116-AGx-2 and M9216-AGx-2 Series Electric Actuators cannot be used in tandem configuration.