

M9000-3xx Weather Shield Enclosures

Description

The M9000-3xx Weather Shield Enclosures are cost-effective and durable weather shields designed to provide a degree of protection for a single Johnson Controls® M(VA)9000 Series Electric Actuator used in control damper, ball valve, and iron flanged valve applications. These weather shield enclosures are manufactured to National Electrical Manufacturers' Association (NEMA) specifications, and protect the electric actuator from corrosion, rain, freezing rain, sleet, and snow. The enclosure can be mounted indoors or outdoors; however, the enclosure may not prevent externally formed ice from restricting the motion of the rotary shaft.

Each enclosure is constructed of impact-grade plastic that provides excellent impact resistance. The cover features ultraviolet inhibitors that extend service life by preventing the cover from becoming brittle or damaged by the sun or other environmental elements. The transparent cover provides an unobstructed view of the electric actuator without having to disassemble the enclosure. An appliance cord in the M9000-310 and M9000-330 Weather Shield Enclosures enable control wiring installation, and a form-fitting seal prevents water or moisture from entering the unit and damaging the actuator.

Refer to the *M9000-3xx Weather Shield Enclosures Product Bulletin (LIT-1201704)* for important product application information.

Features

- durable construction — provides a degree of protection from the elements for a single Johnson Controls® M(VA)9000 Series Electric Actuator used in control damper, ball valve, and iron flanged valve applications
- fully enclosed design — protects the electric actuator from corrosion, rain, freezing rain, sleet, and snow
- impact-grade plastic enclosure — provides impact resistance
- cover constructed using ultraviolet inhibitors — extends service life by preventing the cover from becoming brittle or damaged by the sun or other environmental elements
- transparent cover — allows the electric actuator to be fully viewable without having to disassemble the enclosure
- appliance cord — facilitates control wiring installation (M9000-310 and M9000-330 models)
- strain relief conduit fittings — protect the electric actuator from damage by preventing tension on the electrical connection



M9000-3xx Weather Shield Enclosures Shown Mounted onto a Control Damper, Flanged Ball Valve, Threaded Ball Valve, and Flanged Cast Iron Valve

Repair Information

If the M9000-3xx Weather Shield Enclosure fails to operate within its specifications, replace the unit. For a replacement enclosure, contact the nearest Johnson Controls representative.

Selection Chart

Code Number	Description
M9000-310¹	Weather Shield Enclosure for a Single Johnson Controls M9106, M9108, M9109, M9116, M9124, and M9132 Series Electric Non-Spring Return Actuator Used in Control Damper and Iron Flanged Valve Applications
M9000-320¹	Weather Shield Enclosure for a Single Johnson Controls M9210 and M9220 Series Electric Non-Spring Return Actuator Used in Control Damper and Iron Flanged Valve Applications
M9000-321¹	Weather Shield Enclosure for a Single Johnson Controls M9203 and M9208 Series Electric Spring Return Actuator Used in Control Damper Applications
M9000-330¹	Weather Shield Enclosure for a Single Johnson Controls M9108, M9116, and M9124 Series Electric Non-Spring Return Actuator Used with VG1000 Series Ball Valves, 1/2 through 4 in.
M9000-340¹	Weather Shield Enclosure for a Single Johnson Controls M9220 Series Electric Spring Return Actuator Used in Ball Valve Applications
M9000-341¹	Weather Shield Kit for VG1000 Ball Valve Application of M(VA)9104, M(VA)9203, and M(VA)9208 Series Electric Actuators

1. Kit includes one enclosure base and seal assembly, one cover and gasket, and all necessary mounting hardware. One weather shield enclosure is required per electric actuator.

M9000-3xx Weather Shield Enclosures (Continued)

Technical Specifications

M9000-3xx Weather Shield Enclosures		
Enclosure	M9000-3x0	Impact-Grade ABS Plastic
	M9000-3x1	UV Resistant Polycarbonate Plastic
Enclosure Seal	M9000-3x0	Nitrile
	M9000-3x1	Nitrile
Cover	M9000-3x0	Transparent Impact-Grade ABS Plastic with Ultraviolet Inhibitors
	M9000-3x1	Transparent UV Resistant Polycarbonate Plastic
Cover Gasket	M9000-3x0	Neoprene
	M9000-3x1	Polyurethane
Weather Shield Rating	M9000-310	NEMA 3R, IP54
	M9000-320	NEMA 3R, IP54
	M9000-330	NEMA 3R, IP54
	M9000-340	NEMA 3R, IP54
	M9000-321	NEMA 4X, IP66/67
	M9000-341	NEMA 4X, IP66/67
Actuator Ambient Operating Temperature Limits	M9106 and M9109 (M9000-310 Only)	-4 to 125°F (-20 to 52°C)
	M9108, M9116, M9124, and M9132	-4 to 122°F (-20 to 50°C)
	M9203	-22 to 140°F (-30 to 60°C)
	M9208	Standard Operating: -4 to 140°F (-20 to 60°C)
		Extended Operating: -40 to -4°F (-40 to -20°C)
	M9210 and M9220	-40 to 131°F (-40 to 55°C)
	VA9104	-40 to 131°F (-40 to 55°C)
	VA9203	-22 to 140°F (-30 to 60°C)
VA9208	Standard Operating: -4 to 140°F (-20 to 60°C)	
	Extended Operating: -40 to -4°F (-40 to -20°C)	
Weather Shield Enclosure Ambient Storage Temperature Limits		-40 to 176°F (-40 to 80°C)
Electrical Connections		Strain Relief Conduit Fittings with 1/2 in. National Pipe Straight Mechanical (NPSM) Exit
Appliance Cord		6 Conductor, 18 AWG Wire Gauge, 43 in. (110 cm)
Shipping Weight	M9000-310	2.0 lb (0.9 kg)
	M9000-320	3.3 lb (1.5 kg)
	M9000-321	4.2 lb (1.9 kg)
	M9000-330	3.2 lb (1.45 kg)
	M9000-340	4.2 lb (1.9 kg)
	M9000-341	4.2 lb (1.9 kg)