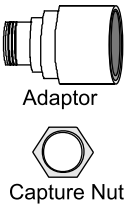
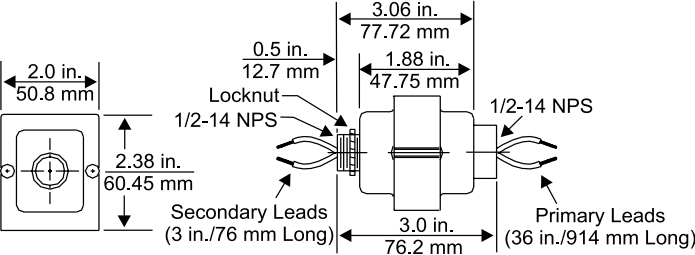


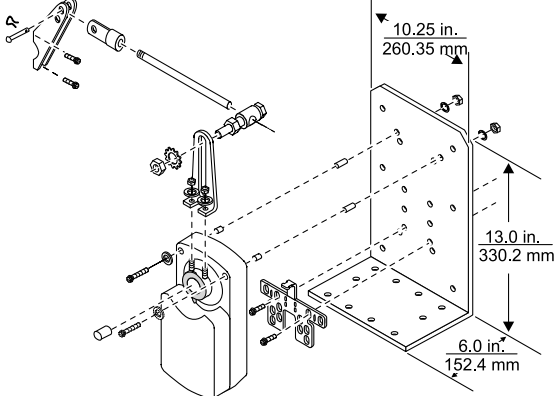
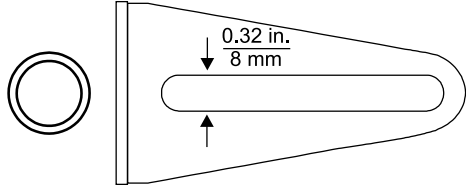
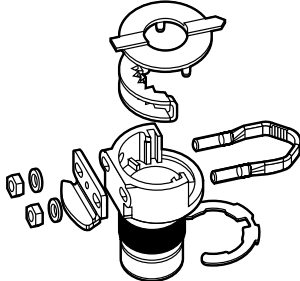
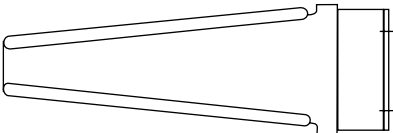
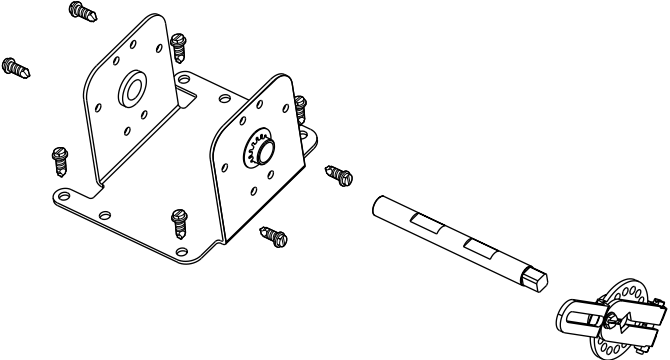
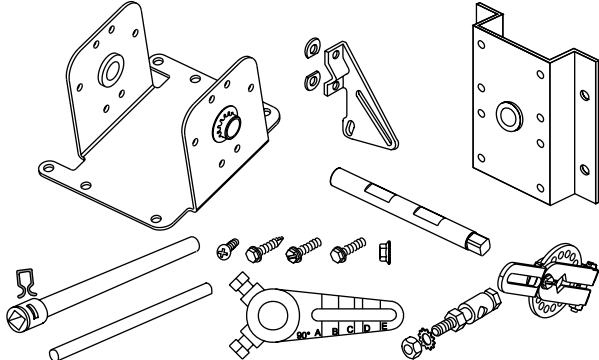


M9000-1xx

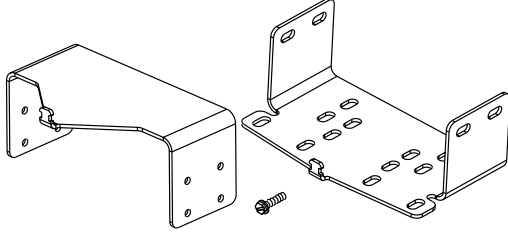
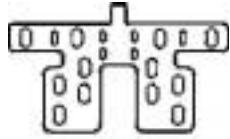

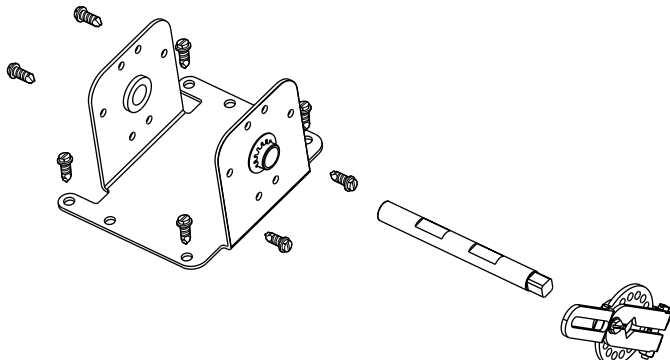


# Accessories for M9000 Series Electric Actuators

<p>Use the <b>M9000-100 Conduit Adaptor Kit</b> with all M9216 Series actuators in applications where codes or contractor requirements specify the use of conduit for wiring. The kit provides the ability to connect the actuator to 1/2 in. Flexible Metallic Tubing (FMT), e.g., flexible conduit, Greenfield, or armored cable. This kit is for low voltage use only, and is not UL or CSA approved. Some M9216 applications may require two kits. For more information, refer to the <i>M9216 Series Electric Spring Return Actuators Installation Instructions, Part No. 34-636-461</i> and the <i>M9000-100 Conduit Adaptor Kit for M9216 Series Electric Spring Return Actuators Packing List, Part No. 34-636-410</i>.</p>	 <p>Adaptor</p> <p>Capture Nut</p>
<p>The <b>M9000-103 and M9000-104</b> are <b>Class 2 transformers</b> that handle 24 VAC, 14 VA power requirements. The M9000-103 is designed for 120/24 VAC applications, and the M9000-104 is designed for 230/24 VAC applications. These transformers may be used for M9108, M9116, M9124, M9132, and M9216 Series actuator applications and a variety of control applications that require 24 VAC at 60 Hz. For more information, refer to the <i>M9000-103 and M9000-104 VA Transformers Product/Technical Bulletin, Part No. 34-636-798</i>.</p>	 <p>2.0 in. / 50.8 mm</p> <p>0.5 in. / 12.7 mm</p> <p>3.06 in. / 77.72 mm</p> <p>1.88 in. / 47.75 mm</p> <p>Locknut</p> <p>1/2-14 NPS</p> <p>2.38 in. / 60.45 mm</p> <p>Secondary Leads (3 in./76 mm Long)</p> <p>3.0 in. / 76.2 mm</p> <p>1/2-14 NPS</p> <p>Primary Leads (36 in./914 mm Long)</p>
<p>The <b>M9000-105 Pluggable 3-Terminal Block</b> is intended to replace spade terminals for M9106-AGA, -AGC, -IGA, and -IGC models; M9124 and M9132-AGA, -AGC, -AGD and -AGE models; M9109-AGA and -AGC models; and M9216-GGC models. For more information on the M9124 and M9132 models, refer to the <i>M9108, M9116, M9124, and M9132 Series Electric Non-spring Return Actuators Installation Instructions, Part No. 34-636-399</i>. Refer to the <i>M9216 Series Electric Spring Return Actuators Installation Instructions, Part No. 34-636-461</i> for the M9216 models. Refer to the <i>M9106 Series Electric Non-spring Return Actuators Installation Instructions, Part No. 34-636-1085</i> for the M9106 models; and the <i>M9109 Series Electric Non-spring Return Actuators Installation Instructions, Part No. 34-636-1190</i> for the M9109 models.</p>	
<p>The <b>M9000-106 Pluggable 4-Terminal Block</b> is intended to replace spade terminals for M9109-GGA and -GGC models; M9106-GGA, and -GGC models; M9216-GGA and -GGC models. For more information, refer to the appropriate M9106 or M9216 literature listed previously.</p>	
<p>The <b>M9000-151 Base Mount Linkage</b> provides inside duct mounting for M9108, M9116, M9124, M9216 Series actuators. (Not intended for M9132 Series actuators.) Nominal spring return torque is 100 lb-in at the damper pin. The M9000-151 should only be used on a 3-blade or larger damper. For more information, refer to the <i>M9000-151 Base Mount Linkage Kit Technical Bulletin, Part No. 34-636-577</i>.</p>	 <p>10.25 in. / 260.35 mm</p> <p>13.0 in. / 330.2 mm</p> <p>6.0 in. / 152.4 mm</p>

**Accessory Kits for M9000 Series Electric Actuators (Continued)**

<p>The <b>M9000-153 Crank Arm Kit</b> is included in the M9000-151 Base Mount Linkage Kit and may be ordered separately. It includes the crank arm and shaft clamp plug for remote mounting M9108, M9116, M9124, and M9216 Series actuators to a 3-blade or larger damper. (Not intended for M9132 Series actuators.) For more information, refer to the M9000-151 literature listed previously.</p>	
<p>The <b>M9000-154 1 in. Jackshaft Coupler Kit</b> with a 1.05 in. (26.7 mm) maximum diameter is for use with the M9108, M9116, M9124, M9132, and M9216 Series actuators. This coupler is designed for use with 1 in. jackshafts only. For more information, refer to the <i>M9000-154 1 in. Jackshaft Coupler Packing List, Part No. 34-636-720</i>.</p>	
<p>The <b>M9000-155 Manual Handle</b> is used to position a damper or valve when power is removed from an M9108, M9116, M9124, or M9132 Series actuator by placing the handle over the u-bolt on the coupler of the actuator. For more information, refer to the appropriate literature listed previously.</p>	
<p>The <b>M9000-156 Mounting Kit</b> provides for remote mount, linkage driven application of the M9204 Series economizer damper actuator or the M9206 Series actuator. The M9000-156 is intended for retrofitting a number of Honeywell® economizer damper actuator installations with an M9204 or M9206 actuator, using the existing linkages. When mounted in the M9000-156, the M9204 or M9206 actuator can drive a blade, jackshaft, or crank arm. The M9000-156 may be mounted internally or externally on a duct, damper, or air handling unit. For more information, refer to the <i>M9000-156 and M9000-165 Mounting Kit Installation Instructions, Part No. 34-1280-33</i>.</p>	
<p>The <b>M9000-157 Universal Mounting Kit</b> provides for remote mount, linkage driven application of the M9204 Series economizer damper actuator or the M9206 Series actuator. When mounted in the M9000-157, the M9204 or M9206 actuator can drive a blade, jackshaft, or crank arm. The M9000-157 may be mounted internally or externally on a duct, damper or air handling unit. The M9000-157 is intended for a new or retrofit damper and actuator assembly. For more information, refer to the <i>M9000-157 Universal Mounting Kit Installation Bulletin, Part No. 34-1280-76</i>.</p>	

## Accessory Kits for M9000 Series Electric Actuators (Continued)

<p>The <b>M9000-158 Tandem Mounting Kit</b> is intended for tandem mounting two M9116-GGx or -HGx; M9124-AGx, -GGx, or -HGx; M9132-AGx or -GGx; or M9216-BGx, -GGx, or -HGx actuators. Use two actuators from the same torque and model group for tandem operation. Do not mix actuator models or torque ratings. The M9000-158 is not intended for remote mount applications or for tandem operation of M9104, M9106, M9108, or M9206 Series actuators. The M9000-158 is mounted on the inside or outside of a duct, damper frame, or air handling unit. When mounted with the M9000-158, the M91xx or M9216 actuators are directly coupled to a damper blade pin extension or a jackshaft. For more information, refer to the <i>M9000-158 Tandem Mounting Kit Installation Instructions, Part No. 34-1282-6</i>.</p>	
<p>The <b>M9000-160 Replacement Anti-rotation Bracket</b> is designed for mounting an M9106, M9108, M9109, M9116, M9124, M9132, or M9216 Series actuator on the inside or outside of a duct or damper frame. For more information, refer to the appropriate literature listed previously.</p>	
<p>The <b>M9000-161 Replacement Anti-rotation Bracket</b> is designed for mounting an M9206 Series actuator on the inside or outside of a duct or damper frame. For more information, refer to the <i>M9206 Series Electric Spring Return Actuators Installation Instructions, Part No. 34-1280-9</i>.</p>	
<p>The <b>M9000-165 Mounting Kit</b> provides for remote mount, linkage driven applications of the M9206-DNx series economizer damper actuator or the M9206-Bxx-2S series actuator. When mounted in either kit, the actuator can drive a blade, jackshaft, or crank arm. The Mounting Kit may be mounted internally or externally on a duct, damper or air handling unit. For more information, refer to the <i>M9000-156 and M9000-165 Mounting Kit Installation Instructions, Part No. 34-1280-33</i>.</p>	
<p>The <b>M9204-600 12-conductor 24 AWG Plenum Rated 3 ft (0.91 m) Extension Cable</b> is designed to connect a M9204-CNx Series Electric Spring Return Economizer Damper Actuator with an AD-DME300, 400, or 500 Direct Mount Economizer Controller. <b>Note: Only use one cable per connection. Do not attempt to extend cable length by connecting multiple cables.</b></p>	
<p>The <b>M9206-600 Repair Kit</b> includes a coupler, set screw, and locking clip for mounting an M9206 actuator to a 3/8 in. to 1/2 in. (10 to 13 mm) round damper shaft or a 3/8 in. (10 mm) square damper shaft. For more information, refer to the M9206 literature listed previously.</p>	
<p>The <b>M9206-601 Repair Kit</b> includes a coupler, set screw, and locking clip for mounting an M9206 actuator to a 3/8 to 5/8 in. (10 to 16 mm) round damper shaft or a 3/8 to 9/16 in. (10 to 14 mm) square damper shaft. For more information, refer to the M9206 literature listed previously.</p>	
<p>The <b>M9206-602 Locking Clip</b> (bag of five) is a replacement clip for the M9206 actuator coupler. For more information, refer to the M9206 literature listed previously.</p>	
<p>The <b>M9206-603 5-conductor 22 AWG Plenum Rated 3 ft (0.91 m) Extension Cable</b> is designed to connect a M9206-DNx Series Electric Spring Return Economizer Damper Actuator with an AD-DME100-0 Direct Mount Economizer controller. <b>Note: Only use one cable per connection. Do not attempt to extend cable length by connecting multiple cables.</b></p>	

M9000-300

# Weather Shield Enclosure



**M9000-300**

Shown Mounted on a Control Damper

## Description

The M9000-300 Weather Shield Enclosure is a cost effective and rugged weather shield designed to protect M9000 actuators in outdoor damper applications. The weather shield enclosure is designed to NEMA 4 specifications, and does not allow any moisture to penetrate the custom designed seals.

The weather shield cover is constructed of a sturdy ABS material injected with ultraviolet inhibitors, which prevents the cover from

becoming brittle or damaged by the sun or any other outdoor element. In addition, this translucent material allows the actuator to be fully viewable. It includes a gasket, damper bracket, anti-rotation bracket, anti-rotation pin, and a liquid tight conduit connector. The base is constructed of a durable nylon blend that provides flexibility and durability.

For more information on the actuators, refer to the appropriate literature: *M9108, M9116, M9124, and M9132 Series Electric Non-spring Return Actuators Installation Instructions, Part No. 34-636-399*; *M9109 Series Electric Non-spring Return Actuators Installation Instructions, Part No. 34-636-1190*; *M9216 Series Electric Spring Return Actuators Installation Instructions, Part No. 34-636-461*; *M9106-xGx-2 Series Electric Non-spring Return Actuators Installation Instructions, Part No. 34-636-1085*; or the *M9206 Series Electric Spring Return Actuators Installation Instructions, Part No. 34-1280-9*.

## Applications

For more information, refer to the *M9000-300 Weather Shield Enclosure Product/Technical Bulletin, LIT-10000055*.

## Features

- durable construction provides protection for the actuator and is able to withstand outdoor elements
- cost effective method of enclosure allows a NEMA 2 instead of a NEMA 4 actuator to be used in outdoor applications
- easy installation makes previously installed actuators easy to enclose
- translucent ABS material allows the actuator to be viewable without disassembling the weather shield enclosure

## To Order

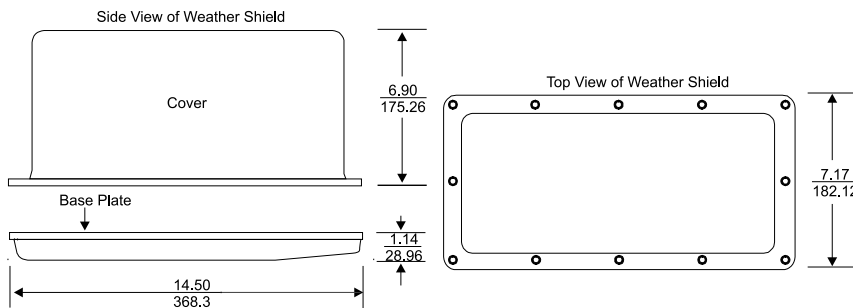
To order a weather shield enclosure, contact the nearest Johnson Controls representative, and specify product code number **M9000-300**.

## Accessories

Code Number	Description
<b>M9000-301</b>	Damper bracket (steel, zinc coated) measuring 14.00 x 0.75 x 0.08 in. (355.6 x 19.05 x 2.03 mm); Shipping weight: 3.1 lb (1.4 kg)
<b>M9000-302</b>	Standard Heater Kit measuring 2.0 x 1.0 x 0.5 in. (50.8 x 25.4 x 12.7 mm); 12 to 36 VAC/VDC, 10 W; Shipping weight: 1.40 lb (0.64 kg)
<b>M9000-303</b>	Tropical Heater Kit measuring 2.4 x 1.0 x 0.5 in. (61.0 x 25.4 x 12.7 mm); 12 to 36 VAC/VDC, 10 W; Shipping weight: 1.40 lb (0.64 kg)




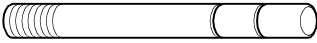





## Specifications

M9000-300 Weather Shield Enclosure	
<b>Material</b>	Top: ABS; Bottom: Nylon blend
<b>Enclosure</b>	NEMA 24, IP55
<b>Dimensions (H x W x D)</b>	8.04 x 14.50 x 7.17 in. (204.2 x 368.3 x 182.1 mm)
<b>Shipping Weight</b>	4.0 lb (1.8 kg)



Dimensions, in. (mm)

# Hardware for Pneumatic Damper Actuators

Product	Code Number	Description and Use
	D-3073-101 D-3153-104	<b>Stop Screw Kit</b> for D-4073 Actuator  <b>Stop Screw Kit</b> 1/4-20 x 3 in.
	D-3153-103 DMPR-KC102	<b>Linkage Rod Replacement</b> for D-3070, D-3073, D-3153, D-4070 or D-4073 Actuators 8 in., 5/16 in. dia 48 in., 5/16 in. dia
	D-3153-106	<b>4 in. Auxiliary Mounting Bracket</b> for D-3070, D-3073, D-3153, D-4070 or D-4074 Actuators
	DMPR-KC251	<b>Universal Mounting Bracket</b> for D-3070, D-3073, D-3153, D-4070, D-4073.
	D-3073-105 D-3153-110	<b>Pivot Post Kit</b> for D-4073 5/kit <b>Pivot Post Kit</b> for D-3153 and D-251 No.2, 5 per kit
	D-3153-111	<b>E-Rings for Pivot Post</b> 10/Kit
	D-3153-112	<b>Mounting Nuts for Pivot Post</b> 10/Kit
	D-9502-5 D-9502-8 D-9502-9 D-9502-5 (a) D-9502-12	<b>Positioner Kit</b> For Field Mounting on Damper Actuators. Kit includes: Positioner, Mounting Plate, Spring, and Mounting Hardware. Kit does not include Tubing. Kit for: No. 5 or D-3244 Actuator D-3153 Actuator D-3153 Two-Stage D-3246 D-3073, D-4073
	D-3000-1077 D-251-705	<b>Connection Head, 5/16-30 Thd</b> For upgrading No. 2 D-251 and D-3000 actuators to ball joint linkage. <b>Connection Head, 3/8-20 Thd</b> For upgrading No. 3 D-251 to ball joint linkage.
	D-251-705 D-3000-1077	<b>Connection Head, 3/8-20 thread, for upgrading D-251 No. 3 to Swivel Ball Joint</b> <b>Connection Head, 5/16 - 30 thread for upgrading D-251 and D-3000 to Swivel Ball Joint</b>
Replacement Diaphragms for discontinued actuators	D-251-6000 D-251-6002 D-251-6003 D-251-6004 D-265-601 D-265-602	<b>Diaphragm</b> for No. 3, package of 25 <b>Diaphragm</b> for No. 2, package of 12 <b>Diaphragm</b> for No. 4, package of 12 <b>Diaphragm</b> for No. 6, package of 6 <b>Spring</b> for No. 3, package of 6 <b>Spring</b> for No. 4, package of 6
	DMPR-KC050 DMPR-KC051 DMPR-KC053 DMPR-KC052	<b>Crank Arm:</b> 7/16 in. shaft, radius adjustable to 2-3/4 in. <b>Crank Arm:</b> 3/8 in. shaft, radius adjustable to 2-3/4 in. <b>Crank Arm:</b> 1/2 in. shaft, radius adjustable to 2-3/4 in. <b>Crank Arm:</b> 1/2 in. shaft, radius adjustable to 1-11/16 in.
	D-9999-152 D-9999-153	<b>Clevis Pin Kit, 10 per kit</b> <b>Twist Lock Clip Kit, 100 per kit</b>

(a)Also order spring number D-9502-612 and Pilot Spring Bracket number D-9502-100.