

50005859-001

NEMA 4 Direct Coupled Actuator Enclosure

INSTALLATION INSTRUCTIONS

APPLICATION

The 50005859-001 NEMA 4 Direct Coupled Actuator (DCA) Enclosure conforms to the NEMA standard for Type 4X (water-, dust-tight and corrosion resistant). It is designed to house a DCA in applications where NEMA 4X protection is required. It can be used with a Honeywell DCA on a damper, ball valve, or globe valve and a Q5020 assembly.

The enclosure is designed primarily for indoor/outdoor use to provide protection against corrosion, dust, rain, and splashing or hose-directed water. The enclosure is also designed to be undamaged by the formation of ice on its surface. It is suitable for use in locations such as: dairies, breweries, manufacturing plants, wastewater treatment plants, and greenhouses.

NOTES:

- Tandem mount assembly is possible using some actuators. See Table 1.
- The bushing is for a 1/2 in. (13 mm) round shaft.

INSTALLATION

When Installing this Product...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check ratings given in instructions and on the product to ensure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in these instructions.

Mounting

1. Verify that the damper shaft extends between 2-1/2 and 8 inches from the mounting surface.

NOTE: When drilling holes for mounting and wiring, Use the provided pilot locations.

2. Identify the proper enclosure location and orientation.
3. Identify and drill the hole for the actuator control and power wiring.
4. Install NEMA 4/4X rated fittings (not included).
5. Identify and drill the holes for the anti-rotation bracket (provided with actuator).
6. Mount the anti-rotation bracket inside the enclosure. It can be necessary to bend or trim the bracket.
7. Identify and drill the holes for mounting the enclosure to the surface.

NOTE: Proceed with caution when sliding the enclosure over the drive shaft. Lack of care can damage the shaft and case bushing.

8. Place the enclosure in the desired mounting position.
9. Mark the mounting surface with enclosure mounting hole locations.
10. If necessary, drill holes in the mounting surface.
11. Mount the enclosure using appropriate fasteners (not included).
12. Install the actuator.
13. Position the damper blade and tighten the shaft adapter.
14. Ensure the actuator is parallel to the enclosure back surface and will not bind.
15. Wire the actuator and test the operation.
16. Close and latch the cover.

CONSTRUCTION

- Sturdy marine grade aluminum 1/16 in. (2 mm) thick.
- Seams are continuously welded and ground smooth.
- Clear epoxy coating applied to the entire enclosure.
- Cover secured with two quick-release latches for easy maintenance access.

COMPATIBILITY

The 50005859-001 Enclosure is compatible with the:

- Actuators listed in Table 1.
- Honeywell devices listed in Table 2.



Table 1. Compatible Actuators.

Model Number	Torque Rating
Non-Spring Return Actuators	
ML6161; ML7161	35 lb-in (4 Nm)
ML6174; ML7174	70 lb-in (8 Nm)
MN6120; MN7220	175 lb-in (20 Nm)
MN6134; MN7234	300 lb-in (34 Nm)
Spring Return Actuators	
MS4105A; MS7505A; MS8105A ^a	44 lb-in (5 Nm)
MS4110A; MS7510A,H; MS8110A ^a	88 lb-in (10 Nm)
MS4120A; MS7520A,H; MS8120A ^a	175 lb-in (20 Nm)
MS4120F ^a ; MS4620F ^a ; MS8120F ^a	175 lb-in (20 Nm)

^a It is possible to tandem mount two of these actuators within the 50005859-001 Enclosure.

Table 2. Compatible Honeywell Devices.

Device	Description
Q5020A, D	Globe Valve Linkages
VB2; VB3	Ball Valves
D640; D642 (with 1/2 in. drive shaft)	Rectangular Commercial Dampers
D690; DM7600	Round Commercial Dampers

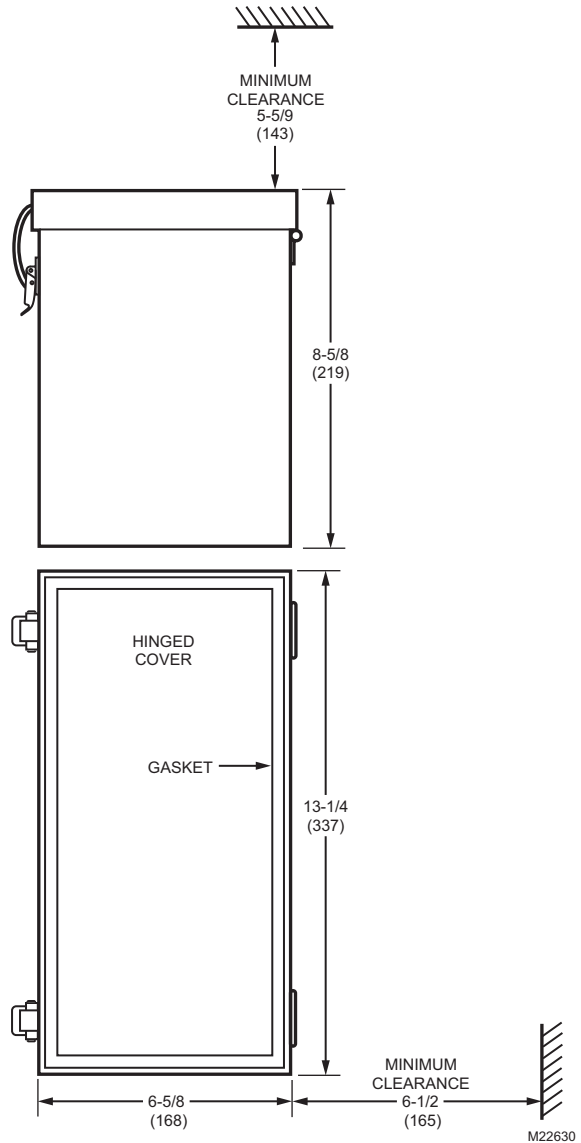


Fig. 1. Dimensions.

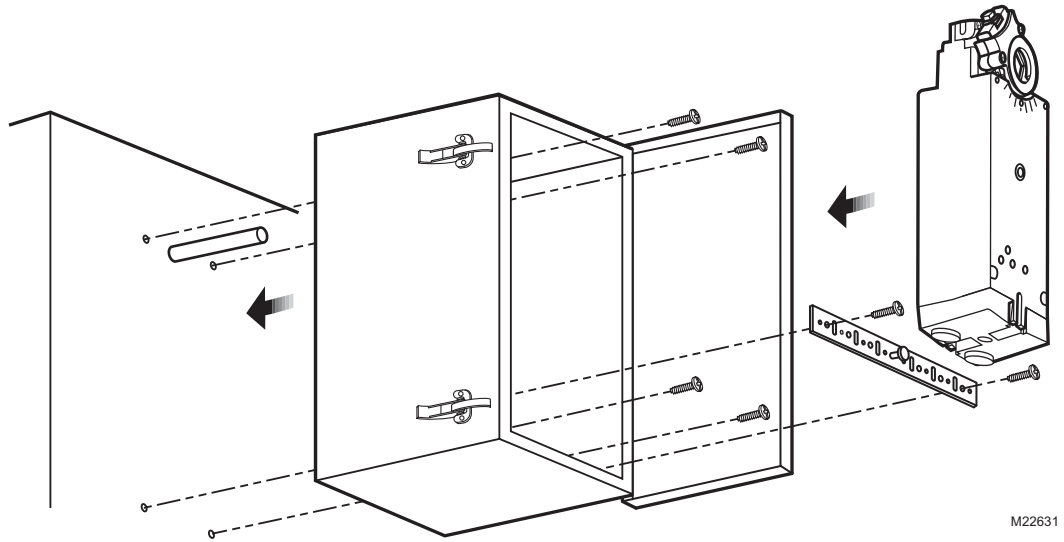


Fig. 2. Enclosure mounted to damper.

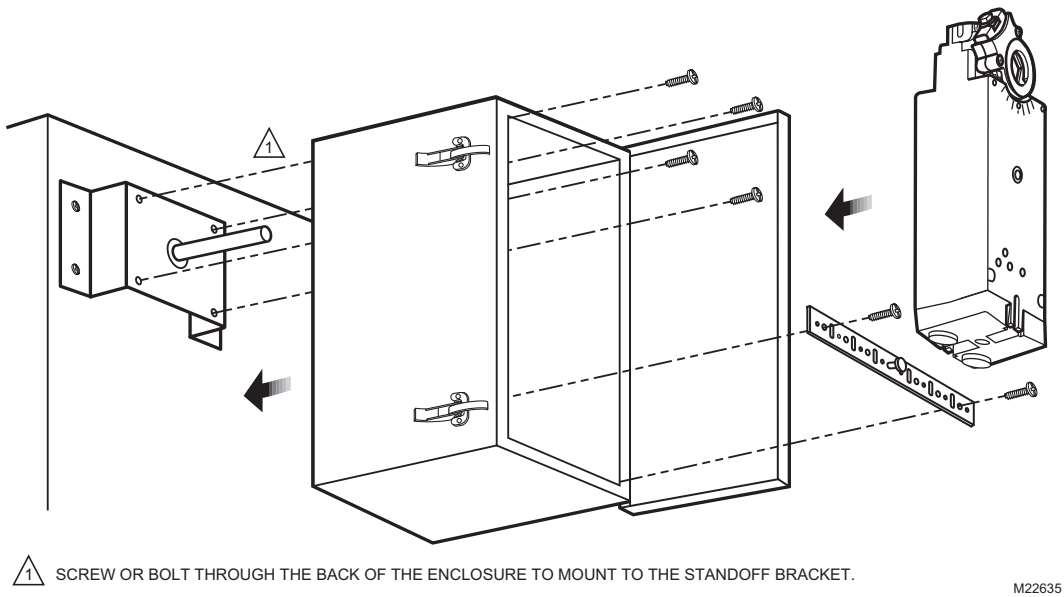
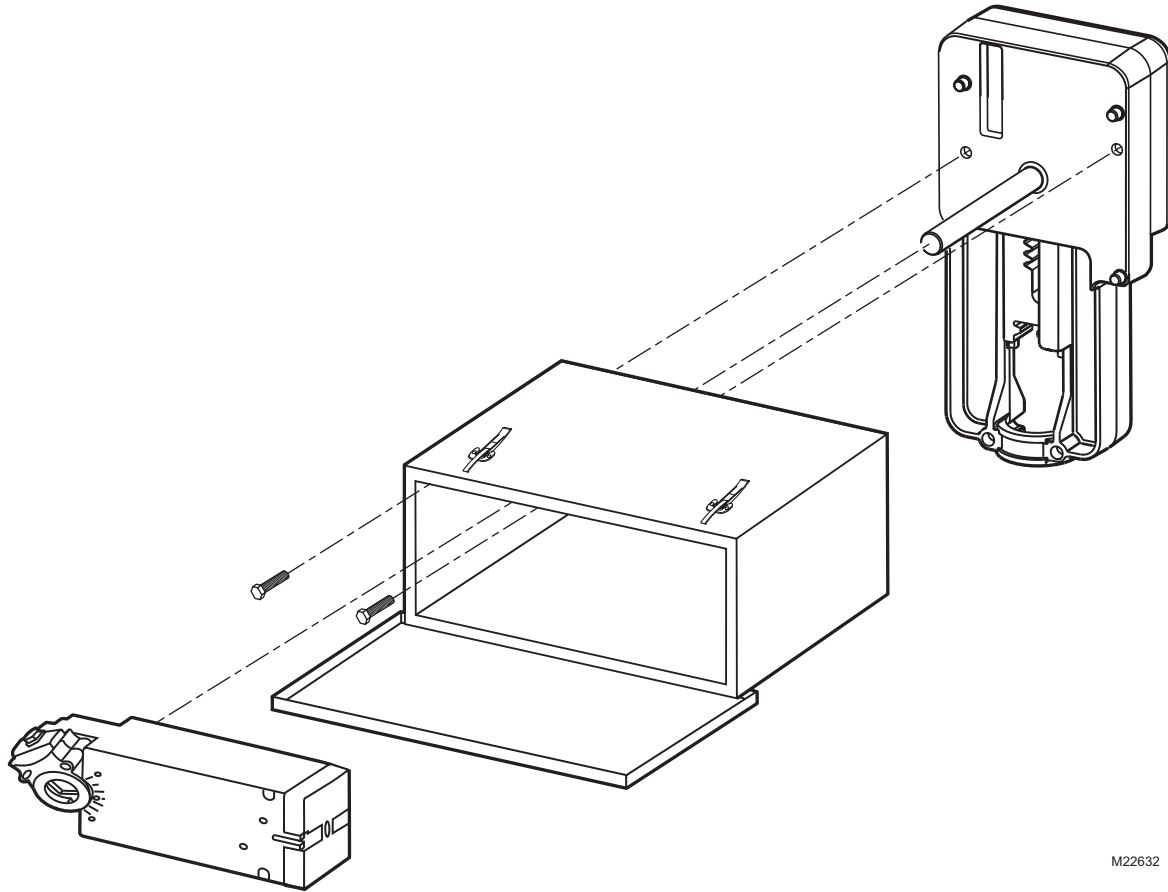


Fig. 3. Enclosure mounted to a standoff bracket.



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Fig. 4. Mounting enclosure and DCA to Q5020A,D.

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