

ES-650-117/118 Explosion-Proof Housings

The ES-650-117/118 Explosion-Proof Housings are used to enclose Modutrol Motors used in hazardous locations.



- NEMA 7 and NEMA 9 enclosures.
- Housing meets NEC requirements for Class I, Group D; and Class II, Groups E, F, and G hazardous atmospheres.
- Suitable for all Modutrol Motors that drive dampers or lever-operated valves.
- Conduit tap on either side of housing.
- Model ES-650-117 houses Modutrol Motors without externally mounted auxiliary switches or potentiometers.
- Model ES-650-118 houses Modutrol Motors with or without externally mounted auxiliary switches or motors.

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Specifications

IMPORTANT: *The specifications given in this publication do not include normal manufacturing tolerances. Therefore, an individual unit may not exactly match the listed specifications. Also, this product is tested and calibrated under closely controlled conditions and some minor differences in performance can be expected if those conditions are changed.*

MODELS:

ES-650-117, ES-650-118 Explosion Proof Housings used with M7044 and M7045 Modutrol Motors and (when used with 220738A Adapter Bracket) all Modutrol IV Motors.

ES-650-117 houses all Modutrol Motors without external auxiliary switches (such as Q607) or potentiometers (such as Q181/Q68).

ES-650-118 houses all Modutrol Motors with or without external auxiliary switches or potentiometers.

DIMENSIONS: See Figs. 1 and 2.

BODY AND COVER MATERIAL: Cast aluminum.

OPTIONAL ACCESSORIES:

7617DM Coupling provides connection from Modutrol Motor to damper linkage or valve lever.
220738A Modutrol IV Adapter Bracket.

Ordering Information

When purchasing replacement and modernization products from your Honeywell distributor, refer to the TRADELINE® Catalog for complete ordering number or specify:

ES-650-117/118 Explosion Proof Housing.

Order from:

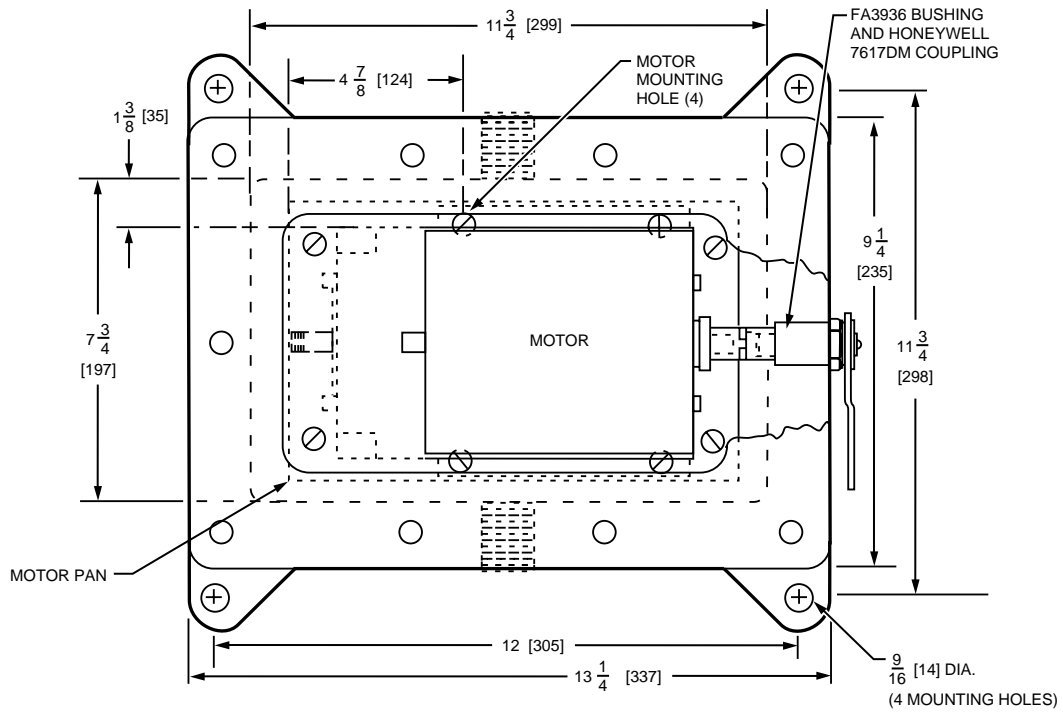
Nelson Electric
P.O. Box 726
Tulsa, Oklahoma 74101
Order Service Department
Phone (918) 627-5530
FAX (918) 664-0526.

If you have additional questions, need further information, or would like to comment on our products or services, please write or phone:

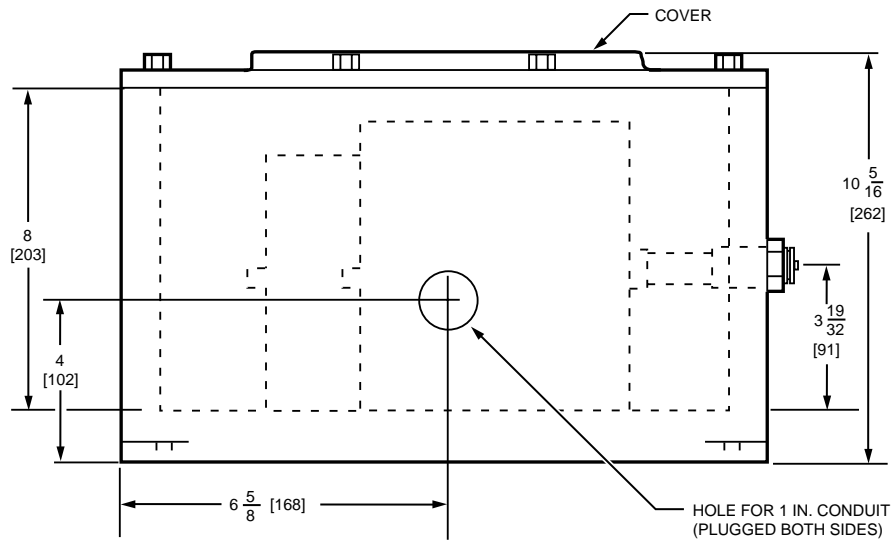
1. Your local Home and Building Control Sales Office (check white pages of your phone directory).
2. Home and Building Control Customer Satisfaction
Honeywell Inc., 1885 Douglas Drive North
Minneapolis, Minnesota 55422-4386 (612) 951-1000

In Canada—Honeywell Limited/Honeywell Limitée, 740 Ellesmere Road, Scarborough, Ontario M1P 2V9 International Sales and Service Offices in all principal cities of the world. Manufacturing in Australia, Canada, Finland, France, Germany, Japan, Mexico, Netherlands, Spain, Taiwan, United Kingdom, U.S.A.

Fig. 1—Dimensions of ES-650-117 Explosion Proof Housing in in. [mm].



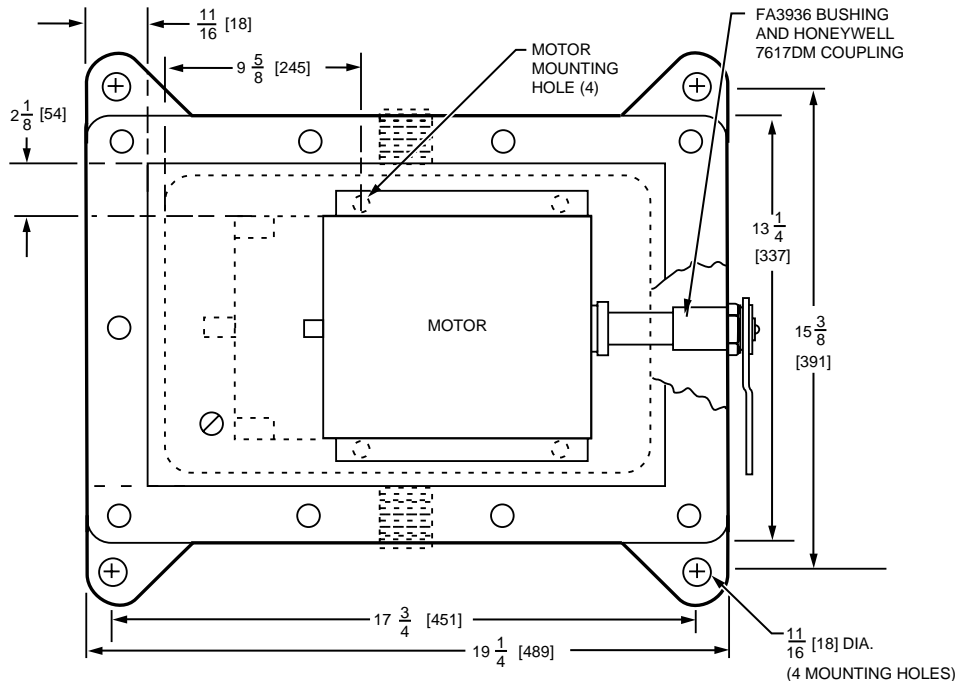
TOP VIEW, COVER OFF



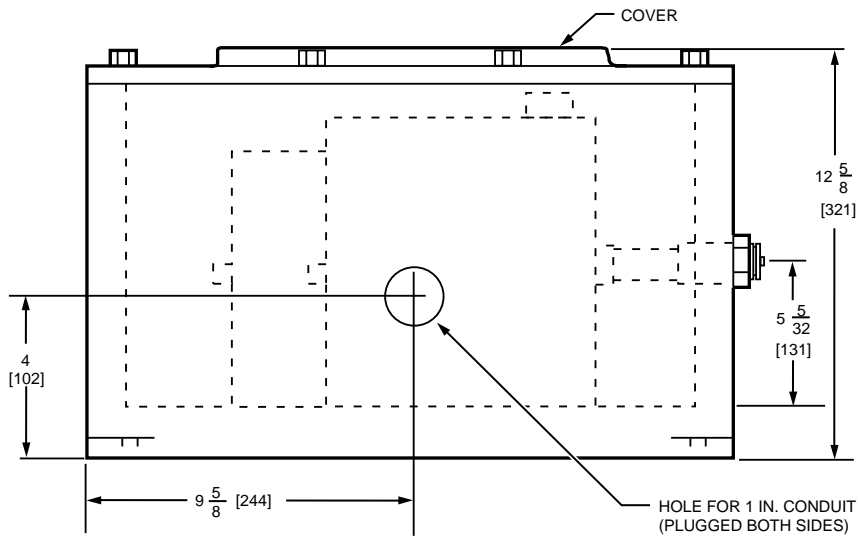
SIDE VIEW, COVER ON

M8241

Fig. 2—Dimensions of ES-650-118 Explosion Proof Housing in in. [mm].



TOP VIEW, COVER OFF



SIDE VIEW, COVER ON

M8240

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 the ratings and description given in this specification to make sure 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.



CAUTION

Disconnect power supply before connecting wiring to prevent electrical shock or equipment damage.

LOCATION AND MOUNTING

Location

Select a location that will accommodate housing and valve or damper assembly and provide ample room for servicing.

All wiring must comply with local codes and ordinances.

Mounting

NOTE: Check Instructions included with Modutrol Motor to determine best mounting position. Mounting bolts are not provided with the ES-650-117/118 Explosion Proof Housings.

Secure ES-650-117/118 Explosion Proof Housing to the mounting surface with the four mounting feet and 1/2-13 x 3/4 inch flat-headed steel bolts (not provided).

WIRING



CAUTION

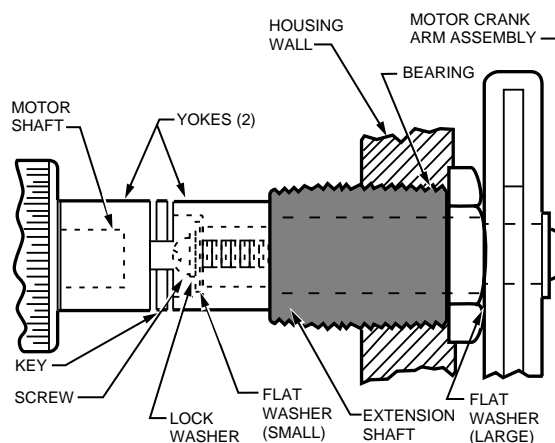
To prevent accidental electrical arcing (sparking), firmly tighten the conduit with a wrench.

1. A one-inch threaded conduit tap for electrical connections is provided on each side of the housing. Wire the motor to the primary power supply through the conduit tap selected.
2. Seal the unused conduit tap using the plug supplied with the housing.

ASSEMBLING 7617DM COUPLING (SEE FIG. 3.)

1. Connect extension shaft to one of two identical yokes (supplied). Tighten screw through lock washer and small flat washer.

Fig. 3—7617DM Coupling.



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2. Insert the extension shaft into the bearing until the yoke is firmly against the bearing.

3. Place the large flat washer over the shaft. Place the crank arm on the extension shaft and fasten with the screw provided.

IMPORTANT: *If the crank arm connection is too tight, the shaft will bind, causing an unnecessary load on the motor. If the crank arm does not turn easily, remove the large flat washer and reinstall the crank arm.*

4. Place the key on the first yoke; then add the second yoke.

5. Mount the Modutrol Motor on the aluminum mounting pan using four 1/4-20 machine screws provided. (For mounting Modutrol IV Motors, install the 220738A Adapter Bracket with four 1/4-20 machine screws.) Then mount the Modutrol IV Motor using the four 1/4 in. [6 mm] machine bolts provided.

6. Place the Modutrol Motor in the housing and insert the square end of the motor shaft into the second yoke.

7. Hold the Modutrol Motor in position and fasten with the four housing screws provided.

8. Place the cover on the housing and fasten with the hex head steel screws provided.

9. To install the linkage, see appropriate Modutrol Motor and linkage instructions.

Checkout

Run the valve or damper system through at least two complete cycles to check for correct operation. Visually check the housing cover and body joint for a tight connection.

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