

TrueZONE ARD, EARD, and ZD Series Dampers

INSTALLATION INSTRUCTIONS

APPLICATION

ARD Series Damper

The ARD is a round damper with a 24 Vac, spring-Open return damper motor used to control circulating air in heating, cooling, and ventilating systems.

EARD Series Damper

The EARD is a round damper with a 24 Vac powered-open/spring-closed motor. It is used for fresh air intake for Ventilation or for combustion makeup air.

ZD Series Damper

The ZD is a power close and spring open damper. It has a 24-volt motor used to control circulating air in HVAC systems and used when a normally-open damper is required. The ZD is typically used with the TrueZONE and other electronic zoning systems.

FEATURES

- **Taping Flange and non-interfering set screw**
- **High Temperature outer plastic for hot environments**
- **Redesigned all Metal Drive Train Gears**
- **Front facing display with LED Indication light for Open and Close.**
- **Adjustable damper position range stops**
- **Quiet operation.**

ARD Features

- Adjustable close position range stops
- Shipped as power closed/spring return open damper.
- Available in 5 to 10" inch, 12, 14, 16, 18, and 20 inch diameter sizes.
- Male (crimped) and female (uncrimped) ends to connect to any rigid or flexible round duct.
- Rated to operate up to 1 in. wc
- Blade closes off tightly against gasket for minimal leakage.
- Fail-safe, normally open operation
- Simple, easy-to-wire, two-wire installation with a third wire option M4 for LED open only light

EARD Features

- Adjustable open position range stops
- Shipped as power open/spring return closed damper.
- Blade closes off tightly against gasket for minimal leakage.
- Galvanized steel
- Rated to operate up to 1 in. wc
- Simple, easy-to-wire, two-wire installation
- Male (crimped) and female (uncrimped) ends to connect to any rigid or flexible round duct.

ZD Features

- Adjustable closed position range stops
- Rated to operate up to 1 in. wc
- Solid construction using extruded aluminum frame and blades
- Parallel blade design for low leakage performance
- Simple, easy-to-wire, two-wire installation with a third wire option M4 for LED open light
- Fail-safe, normally open operation
- Ordering Instructions: Order ZD (dimension 1) x (dimension 2). (Motor is always mounted on dimension 2 side.) For example, ZD10x8TZ is a 10 in. x 8 in. damper with the motor on the 8 in. side; but a ZD8x10TZ is a 8 in. x 10 in. damper that has the motor on the 10 in. side.
- Damper can be installed in any orientation (mounting side can be on either the bottom or the side of the duct).



SPECIFICATIONS

IMPORTANT

The specifications given in this publication do not include normal manufacturing tolerances. Therefore, this 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.

Motor Electrical Rating: 24 Vac, 60 Hz, 8VA.

Motor Electrical Connection: Push terminals. Solid (not stranded) wire is recommend.

Motor Nominal Angular Rotation: 90°.

Motor Torque: Minimum 71 in.-oz. (500 millinewton meters) output torque available when motor is energized and device is at the spring return initial start position.

Nominal Motor Timing at 77°F (25°C) Ambient:

Energized at rated load: 30 seconds.
De-energized (spring return): 10 seconds.

Motor Ambient Temperature Rating: 40° to 140°F (5° to 60°C).

Leakage: Less than 1% at 1/2 in. wc.

Pressure Drop: Maximum at full open: 0.0329 in. wc at 800 ft/min.

Maximum Static Pressure: 1 in. wc for all models except 0.3 in. wc for ARD20.

Motor Shaft Rotation Direction: Clockwise, when energized and viewed from the base or shaft end.

Motor Mounting Means: Direct connection to damper shaft.

Motor Mounting Position: Multi-poise.

Motor Dimensions: See Fig. 1.

Construction

ARD Dampers

Frame: Galvanized steel spiral duct, crimped on downstream side.

ARD Sizes: 5 in., 6 in., 7 in., 8 in., 9 in., 10 in., 12 in., 14 in., 16 in., 18 in., and 20 in. diameters.

Gauge: ARD5-ARD12: 24 Gauge frame, and 22 Gauge Blade
Blade: ARD14-ARD20: 22 Gauge frame, and 20 Gauge Blade

EARD Dampers

Frame: Galvanized steel spiral duct

EARD Sizes: 5-, 6-, 7-, and 8-, inch diameter sizes

ZD Dampers

Frame: Solid construction using extruded aluminum frame and blades

ZD Sizes: Even sizes from 6in. x 6in. up to 36 in x 36 in.

Damper dimensions: All ZD dampers are actually sized 5/32 in. smaller than the listed size to ensure correct fit.

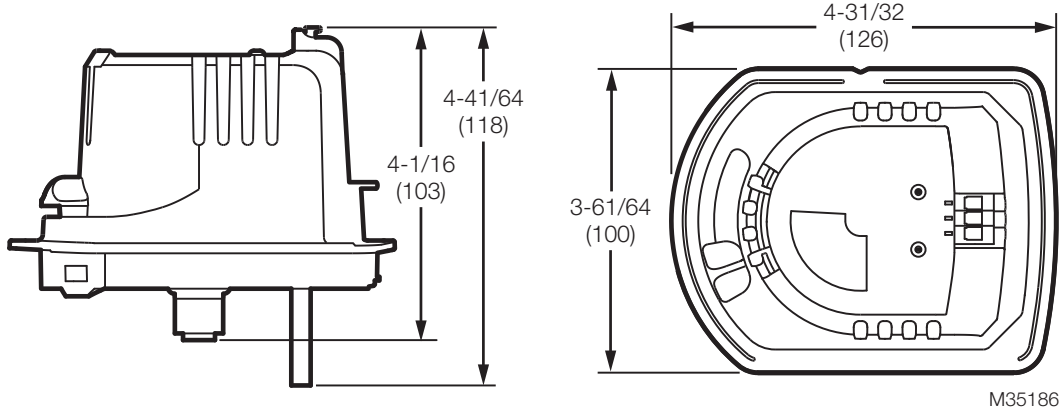


Fig. 1. Motor and damper dimensions in in. (mm).