



## ZD Series Damper

### SUBMITTAL SHEET

|                       |  |
|-----------------------|--|
| Job Name              |  |
| Engineer              |  |
| Mechanical Contractor |  |
| Contractor's P.O. No. |  |
| Representative        |  |
| Notes                 |  |

|          |      |  |       |  |
|----------|------|--|-------|--|
| Model(s) |      |  |       |  |
|          | Qty. |  | Notes |  |
|          | Qty. |  | Notes |  |
|          | Qty. |  | Notes |  |
| Approval |      |  |       |  |
| Service  |      |  |       |  |
| Tag No.  |      |  |       |  |

### APPLICATION

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.

### 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.
- Damper can be installed in any orientation (mounting side can be on either the bottom or the side of the duct).
- 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.
- The ZD is intended for use as a zone damper. It cannot be configured to be power open for fresh air applications. EARD round dampers are power open. ARD round dampers are field convertible to be power open with an M847D-VENT actuator.

### 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 recommended.

**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.

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

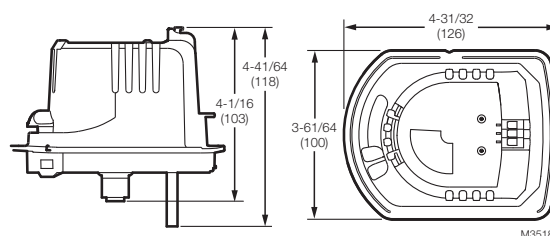
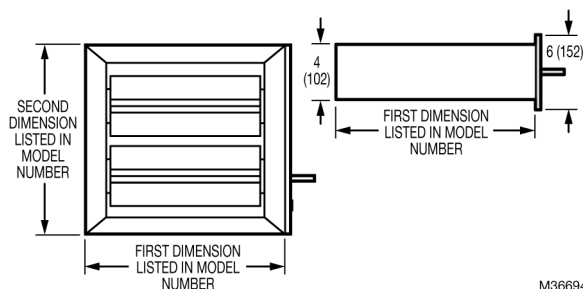
**Motor Mounting Means:** Direct connection to damper shaft.

**Motor Mounting Position:** Multi-poise.

### REPLACEMENT PARTS

Motor (actuator assembly) M847D-ZONE

### DIMENSIONS IN INCHES (MM)



33-00264-02

## SIZES

**Order ZD (dimension 1) x (dimension 2) TZ. (Actuator is always mounted on dimension 2 side.)**— For example, ZD10x8TZ is a 10 in. x 8 in. damper with the actuator on the 8 in. side; but a ZD8x10TZ is a 8 in. x 10 in. damper that has the actuator on the 10 in. side. All ZD dampers are actually sized 5/32 in. smaller than the listed size to ensure correct fit. All ZD models are 4" thick. Note that the damper can be installed in any orientation (mounting side can be on either the bottom or the side of the duct).

| Available Sizes |          |          |           |           |           |           |           |           |           |           |           |           |
|-----------------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                 | 6 in.    | 8 in.    | 10 in.    | 12 in.    | 14 in.    | 16 in.    | 18 in.    | 20 in.    | 22 in.    | 24 in.    | 26 in.    | 28 in.    |
| 6 in.           | ZD6X6TZ  | ZD6X8TZ  | ZD6X10TZ  | ZD6X12TZ  | ZD6X14TZ  | ZD6X16TZ  | ZD6X18TZ  | ZD6X20TZ  | ZD6X22TZ  | ZD6X24TZ  | ZD6X26TZ  | ZD6X28TZ  |
| 8 in.           | ZD8X6TZ  | ZD8X8TZ  | ZD8X10TZ  | ZD8X12TZ  | ZD8X14TZ  | ZD8X16TZ  | ZD8X18TZ  | ZD8X20TZ  | ZD8X22TZ  | ZD8X24TZ  | ZD8X26TZ  | ZD8X28TZ  |
| 10 in.          | ZD10X6TZ | ZD10X8TZ | ZD10X10TZ | ZD10X12TZ | ZD10X14TZ | ZD10X16TZ | ZD10X18TZ | ZD10X20TZ | ZD10X22TZ | ZD10X24TZ | ZD10X26TZ | ZD10X28TZ |
| 12 in.          | ZD12X6TZ | ZD12X8TZ | ZD12X10TZ | ZD12X12TZ | ZD12X14TZ | ZD12X16TZ | ZD12X18TZ | ZD12X20TZ | ZD12X22TZ | ZD12X24TZ | ZD12X26TZ | ZD12X28TZ |
| 14 in.          | ZD14X6TZ | ZD14X8TZ | ZD14X10TZ | ZD14X12TZ | ZD14X14TZ | ZD14X16TZ | ZD14X18TZ | ZD14X20TZ | ZD14X22TZ | ZD14X24TZ | ZD14X26TZ | ZD14X28TZ |
| 16 in.          | ZD16X6TZ | ZD16X8TZ | ZD16X10TZ | ZD16X12TZ | ZD16X14TZ | ZD16X16TZ | ZD16X18TZ | ZD16X20TZ | ZD16X22TZ | ZD16X24TZ | ZD16X26TZ | N/A       |
| 18 in.          | ZD18X6TZ | ZD18X8TZ | ZD18X10TZ | ZD18X12TZ | ZD18X14TZ | ZD18X16TZ | ZD18X18TZ | ZD18X20TZ | ZD18X22TZ | ZD18X24TZ | ZD18X26TZ | N/A       |
| 20 in.          | ZD20X6TZ | ZD20X8TZ | ZD20X10TZ | ZD20X12TZ | ZD20X14TZ | ZD20X16TZ | ZD20X18TZ | ZD20X20TZ | ZD20X22TZ | ZD20X24TZ | N/A       | N/A       |
| 22 in.          | ZD22X6TZ | ZD22X8TZ | ZD22X10TZ | ZD22X12TZ | ZD22X14TZ | ZD22X16TZ | ZD22X18TZ | ZD22X20TZ | ZD22X22TZ | ZD22X24TZ | N/A       | N/A       |
| 24 in.          | ZD24X6TZ | ZD24X8TZ | ZD24X10TZ | ZD24X12TZ | ZD24X14TZ | ZD24X16TZ | ZD24X18TZ | ZD24X20TZ | ZD24X22TZ | ZD24X24TZ | N/A       | N/A       |
| 26 in.          | ZD26X6TZ | ZD26X8TZ | ZD26X10TZ | ZD26X12TZ | ZD26X14TZ | ZD26X16TZ | ZD26X18TZ | ZD26X20TZ | N/A       | N/A       | N/A       | N/A       |
| 28 in.          | ZD28X6TZ | ZD28X8TZ | ZD28X10TZ | ZD28X12TZ | ZD28X14TZ | ZD28X16TZ | N/A       | ZD28X20TZ | N/A       | N/A       | N/A       | N/A       |

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