



## 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.

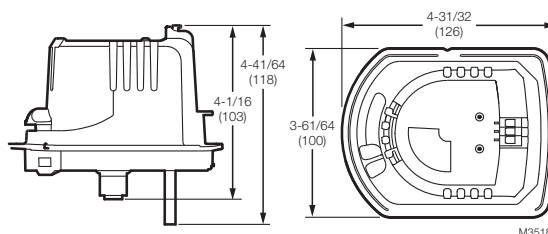
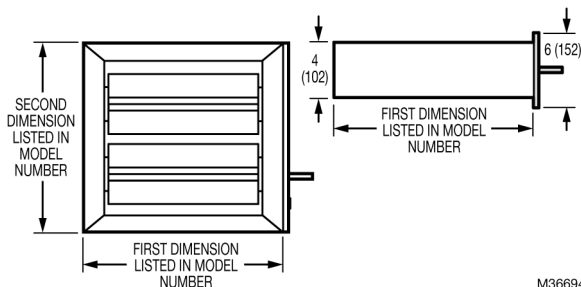
**Motor Mounting Means:** Direct connection to damper shaft.

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

### REPLACEMENT PARTS

Motor (actuator assembly) M847D-ZONE

### DIMENSIONS IN INCHES (MM)



# 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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Resideo Technologies, Inc.  
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