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# ZEBD25 ELECTRONIC BYPASS DAMPER

Ruskin Model ZEBD25 electronic bypass damper is constructed of 18 gage (1.2) galvanized steel. The full length aluminum axle rides on nylon bushings for smooth and quiet operation. The unit has a standard foam blade seal to provide tight shutoff. The factory mounted actuator and static pressure switch are factory tested to ensure

dependable operation. The ZEBD25 is perfect for use in zone bypass applications and other HVAC applications that require maintaining system static pressure from 0.2" to 2.0" water column (50 to 500 Pa).

### STANDARD CONSTRUCTION

#### **FRAME**

18 gage (1.2) spiral steel

#### **BLADE**

18 gage (1.2) steel

#### **AXLES**

1/2" (13) aluminum shaft

#### **BEARINGS**

Nylon sleeve type

## **BLADE SEAL**

Foam rubber

### STATIC PRESSURE CONTROL

Model ZSPC200 (reference ZSPC200 Specification Sheet)

### PRESSURE RANGE

0.2" to 2.0" water column (50 to 500 Pa) 0.5 PSI (3450 Pa) max pressure 1 Amp switching current at 24 VAC

### **ACTUATOR**

24 VAC, 50/60Hz floating point 90 second timing @ 60Hz

### POWER CONSUMPTION

3.3 VA modulating

### **AGENCY LISTINGS**

UL873 and cUL (C22.2 No. 24-93) listed

# **ACTUATOR TORQUE**

44-lb-in (5 Nm)

#### **AVAILABLE SIZES**

12", 14", 16", 18", 20" (305, 356, 406, 457, 508)

### **FINISH**

Galvanized

#### **OPERATING TEMPERATURE**

32° to 120°F (0° to 49°C)

# **PACKAGE CONTENTS**

- Low Leak Damper
- · Factory mounted actuator
- · Factory mounted static pressure switch
- · Aluminum pressure probe with tubing
- Installation Instructions

**NOTE:** Dimensions shown in parentheses ( ) indicate millimeters.



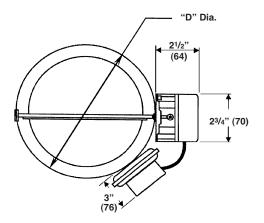
#### **FEATURES**

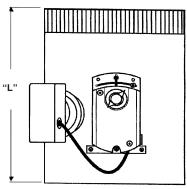
- Factory mounted actuator and static pressure control
- 1/4" (6) I.D. flex hose connection
- · Solid state control design
- Built-in LED for damper direction
- · Minimum position adjustment

# **SEQUENCE OF OPERATION**

As individual zone dampers open and close, the system static pressure rises and falls respectively. In order to maintain proper airflow and static pressure through the HVAC system, a bypass damper with a reversible type motorized actuator and static pressure control should be used. The static pressure control is equipped with a solid-state switching and timing circuit to enhance operation and improve reliability. Refer to the ZSPC200 Static Pressure controller Installation Instructions for additional details.

# **DIMENSIONAL DETAILS**





DIMENSIONS	
"D" DIAMETER	"L" DIMENSION
12" (305)	13" (330)
14" (356)	14" (356)
16" (406)	14" (356)
18" (457)	14" (356)
20" (508)	14" (356)

# SUGGESTED SPECIFICATION

Furnish and install, at locations shown on plans, or as in accordance with schedules, electronic bypass dampers built to the following minimum requirements. Frame shall be spiral steel shell 18 gage (1.2) minimum. Blade shall be minimum 18 gage (1.2) galvanized steel, mechanically fastened to a 1/2" (13) diameter continuous aluminum shaft. Shaft shall ride on nylon bushings, at both ends, to provide smooth and quiet operation. Foam blade seal shall be glued and caulked to ensure damper leakage integrity. Damper shall be equipped with a factory furnished, mounted and cycle tested 24 VAC

electric floating point actuator and static pressure control that are wired together to ensure product compatibility and reduce field labor. Actuator shall be UL873 and cUL listed. Power consumption shall not exceed 3.3 VA at any time during operation. Static pressure switch shall control between 0.2" to 2.0" water column (50 to 500 Pa). Unit shall be rated to 0.5 PSI max pressure. Complete assembly shall be, in all respects, equivalent to Ruskin model ZEBD25 Electronic Bypass Damper.

