

ZDR25 ROUND ZONE CONTROL DAMPER

APPLICATION

Ruskin Model ZDR25 is a round commercial zone control damper assembly that includes a modulating actuator, integral duct temperature sensor, actuator logic board and (ship loose) P+ I wall thermostat. All components are factory commissioned to simplify field installation. The ZDR25 can be tied into an air handling unit when ordered as a component of the Z2000 zone comfort system. Additional ZDR25 dampers may be ordered without the logic board and controlled by the primary damper logic board. One Primary ZDR25 damper logic board can control up to three additional ZDR25 tracer dampers within the same zone. The ZDR25, with standard Z2000RT wall thermostat, is also a stand-alone device for single zone applications.

STANDARD CONSTRUCTION

FRAME

18 gage (1.2) spiral, galvanized steel

BLADE

18 gage (1.2), galvanized steel

AXLE

1/2" (13) aluminum shaft

BEARINGS

Nylon bushings

BLADE SEAL

Sponge foam, glued & caulked

MAXIMUM STATIC PRESSURE

2" water column (500 Pa)

MAXIMUM SYSTEM VELOCITY

2000 Feet Per Minute (10.2 m/s)

ACTUATOR

3-wire floating point
24 VAC, 50/60Hz

TIMING

90 seconds at 60 Hz, 108 at 50 Hz

POWER CONSUMPTION

2 VA modulating

ACTUATOR TORQUE

44-lb-in (5Nm)

AGENCY LISTINGS

UL873, cUL C22.2 No. 24-93

THERMOSTAT

Model Z2000RT

AVAILABLE SIZES

6", 8", 10", 12", 14", 16", 18", 20" (152, 203, 254, 305, 356, 406, 457, 508)

OPERATING TEMPERATURE

-22 to 130 degrees Fahrenheit (-30 to 54.4°C)

PACKAGE CONTENTS

- Damper
- Factory mounted actuator with logic board
- Integral duct sensor
- Z2000RT wall thermostat
- Installation Instructions

FEATURES

- Factory mounted & commissioned actuator with logic board
- Integrated auto changeover sensor
- 5 year warranty

NOTE: Dimensions shown in parentheses () indicate millimeters.



STANDARD ZDR25 PACKAGE

VARIATIONS

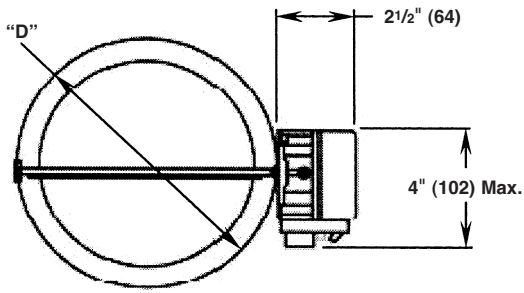
- Tracer control package (omit logic board, sensor & wall stat)
The tracer damper copies the primary damper blade position.
Wire to a primary damper logic board for larger zones.

SEQUENCE OF OPERATION

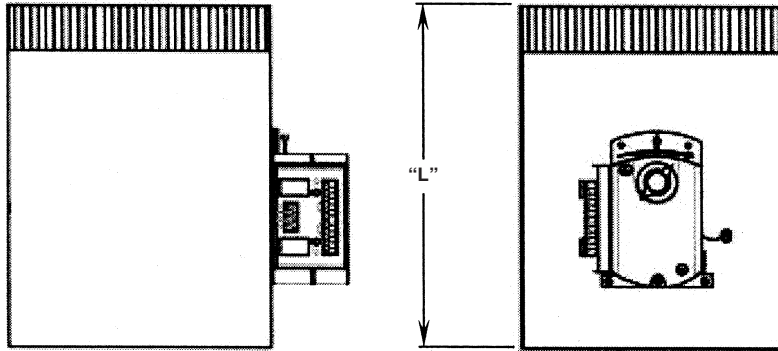
As part of the Z2000 comfort system, Ruskin model ZDR25 compares the duct temperature with the demand of the zone and modulates either open or closed to satisfy the demand. For further details, refer to the Z2000 Modulating zone Comfort System control Panel literature.

The ZDR25 may be used as a stand-alone zone control device (without the Z2000 comfort system control panel). In this application the Z2000RT wall stat is set to the desired temperature and the actuator modulates the damper to satisfy the call for either cooling or heating. During the heating cycle the damper modulates closed on call for cooling and modulates open on call for heat. During the cooling cycle the damper modulates open on call for cooling and modulates closed on call for heat.

DIMENSIONAL DETAILS



DIMENSIONS	
"D" DIAMETER	"L" Length
6" (152)	10" (254)
8" (203)	10" (254)
10" (254)	10" (254)
12" (305)	10" (254)
14" (356)	10" (254)
16" (406)	10" (254)
18" (457)	10" (254)
20" (508)	10" (254)



SUGGESTED SPECIFICATION

Furnish and install, at locations shown on plans, or as in accordance with schedules, electronic zone control dampers built to the following minimum requirements. Frame shall be 18 gage (1.2) galvanized steel minimum. Blade shall be minimum 18 gage (1.2) galvanized steel with a 1/2" (13) diameter, full length aluminum axle shaft, mechanically fastened to ensure dependable service. Shaft shall ride on nylon bushings, at both ends, to provide smooth and quiet operation. Damper shall be equipped with a factory furnished, mounted and cycle tested 24 VAC electric floating point actuator

with a logic board control and duct sensor. All components shall be 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. Assembly shall be designed to withstand 2 inches of water column and 2,000 feet per minute (500 Pa and 10.2 m/s) velocity. Complete assembly shall be, in all respects, equivalent to Ruskin model ZDR25 Zone Control Damper.

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