

## FSD-EX COMBINATION FIRE AND SMOKE DAMPER FOR EXHAUST APPLICATIONS 1½ HOUR UL555 RATED, UL555S CLASS 1 CLASSIFIED

### APPLICATION

The FSD-EX is a round "plunger" type combination fire and smoke damper designed for application with a rectangular grille. The FSD-EX is designed for vertical installation in a wall and is ideal for "exhaust" applications. It installs easily from one side of the wall and fails close upon the loss of power.

### STANDARD CONSTRUCTION

#### FRAME AND GRILLE BOX

20 gage (1.0) galvanized steel, 14" (356) depth.

#### BLADE

Two-piece 14 gage (1.9) equivalent thickness galvanized steel sandwiching insulation.

#### BEARINGS

Stainless steel sleeve pressed into frame.

#### BLADE SEALS

Silicone sponge type fastened to blade edge for full circumference smoke seal to 450°F (232°C). Full circumference smoke seal to 450°F (232°C).

#### CONTROLLED CLOSURE DEVICE (HEAT-ACTUATED)

165°F (74°C) standard. 212°F (100°C) or 250°F (121°C) are supplied at no additional cost.

### DAMPER SIZES

5" (127), 6" (152), 8" (203) diameter.

### GRILLE BOX SIZES

Minimum Size – 12"w x 8"h (305 x 203)

Maximum Size – 14"w x 10"h (356 x 254)

### OPTIONS

- **SPH2** to remotely indicate damper blade position.
- **MCP** control panels for test purposes or smoke management systems.

The FSD-EX meets the requirements for fire, smoke and combination fire smoke dampers established by:

- **National Fire Protection Association** NFPA Standards 90A, 92A, 92B and 101
- **BOCA National Building Codes**
- **ICBO Uniform Building Codes**
- **SBCCI Standard Building Codes**
- **ICC International Building Codes**

### UL CLASSIFIED

UL555 Listing R15402, UL555S Listing R15402

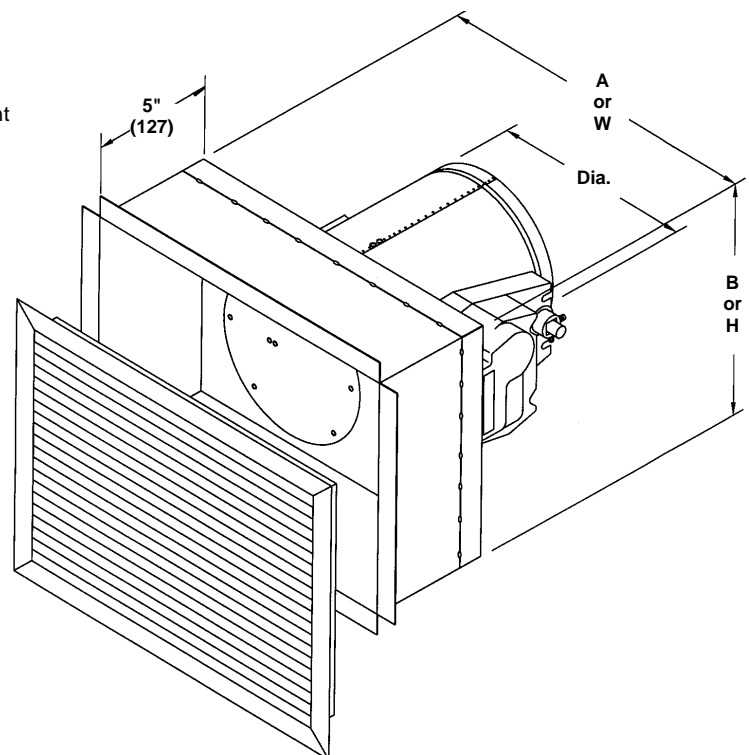
### FEATURES

The FSD-EX combination fire and smoke damper offers:

- EFL (Electric Fuse Link) heat-actuated release devices permit controlled (rather than instantaneous) closure through the damper actuator. The EFL allows the damper to automatically reopen after a test, smoke detection or power failure condition.
- EFL is standard on dampers with electric actuators.

### NOTES

1. FSD-EX is ordered "actual size."
2. Dimensions shown in parentheses ( ) indicate millimeters



## SPECIFICATION

Combination fire/smoke dampers meeting or exceeding the following specifications shall be furnished and installed at locations shown on plans or as described in schedules. Dampers shall meet the requirements of NFPA90A, 92A and 92B and shall be classified for use for fire resistance ratings of less than 3 hours, in accordance with UL555. Dampers shall further be classified as Smoke Dampers for use in smoke control systems in accordance with the latest version of UL555S. The leakage rating under UL555S shall be leakage Class 1 (4 cfm/sq. ft. at 1" w.g.).

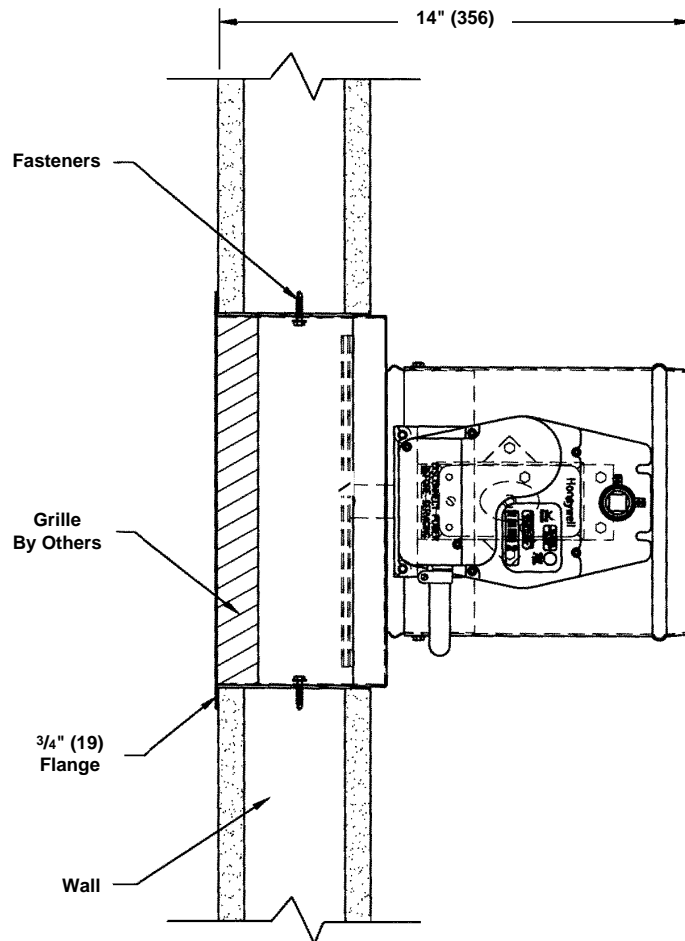
In addition to the leakage ratings already specified herein, the dampers and their actuators shall be qualified under UL555S to an elevated temperature of 250°F (121°C). Appropriate electric actuator shall be installed by the damper manufacturer at time of damper fabrication. Actuators shall be rated for energized hold open position periods of 6 months or more. Damper and actuator shall be supplied as a single entity which meets all applicable UL555 and UL555S qualifications for both dampers and actuators.

Each combination fire/smoke damper shall be equipped with a "controlled closure" quick detect heat-actuated release device to prevent duct and HVAC component damage. Instantaneous damper closure is unacceptable.

Damper assembly shall consist of a rectangular grille "box" with 3/4" (19) flanges and round "plunger" type damper. Assembly shall be minimum 20 (1.0) gage galvanized steel. Blades shall be two piece 14 (1.9) gage equivalent thickness galvanized steel and shall sandwich 1/4" (6) insulation. Bearings shall be stainless steel sleeve type turning in an extruded hole in the round damper frame. Blade edge seals shall be silicone sponge type fastened to the blade edge for full circumference smoke seal to 450°F (232°C). Damper shall be Ruskin model FSD-EX, ideal for "exhaust" application.

(Consult Ruskin for detailed CSI *MasterFormat* Specification).

## TYPICAL INSTALLATION



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