

## FSD36FA "FRONT ACCESS" COMBINATION FIRE AND SMOKE DAMPER 1½ HOUR UL555 RATED, UL555S LEAKAGE CLASS 2

### APPLICATION

The FSD36FA is a combination fire/smoke damper that allows through the grille access to the damper, actuator and heat actuated device. It can be equipped with the industry's shortest sleeve and is ideally suited for shaft wall applications. The FSD36FA damper is rated for maximum velocity of 2,000 fpm, 4" (102) static pressure.

### STANDARD CONSTRUCTION

#### FRAME/SLEEVE

20 gage (.9) galvanized steel, standard integral sleeve with front flange for grille application and integral actuator cabinet. Sleeve is supplied with factory installed insulation on four sides. See page 3 for minimum sleeve requirements.

#### BLADES

6" (152) wide, 16 (1.6) gage galvanized steel. Triple V-groove shaped approximately 6" (152) on center.

#### ACTUATOR CABINET

Cabinet is 6" (152) wide on damper 14" (356) wide and larger. Cabinet is 4" (102) wide on dampers less than 14" (356) wide.

#### LINKAGE

Concealed in frame.

#### BEARINGS

Stainless steel sleeve, pressed into frame.

#### JAMB SEALS

Stainless steel, flexible metal compression type.

#### BLADE SEALS

Silicone edge type for smoke seal to 450°F (232°C) and galvanized steel for flame seal to 1900°F (1038°C).

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

EFL 165°F (74°C) is standard. 212°F (100°C), 250°F (121°C), or 350°F (177°C) are options.

PFL 165°F (74°C) is standard. 212°F (100°C) or 285°F (141) are options.

### DAMPER SIZES

#### MINIMUM SIZE

12"w x 8"h (305 x 203). 14"w x 8"h (356 x 203) with SP100 or TS150. Effective damper size is 8"w x 8"h (203 x 203).

#### MAXIMUM SIZE

36"w x 36"h (915 x 915). Effective damper size is 30"w x 36"h (762 x 915).

### OPTIONS

- **FM Approvals** Specification Tested Product.
- **Longer sleeve** for duct connections
- **TS150 FireStat** for reopenable operation in dynamic smoke management systems.
- **SP100 Switch Package** to remotely indicate damper blade position.
- **MCP** control panels for test purposes or smoke management systems.
- **More Grille depth for OBD.**

### NOTES

1. Dampers furnished actual size.
2. Dimensions shown in parentheses ( ) indicate millimeters.

Model FSD36FA 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**
- **New York City** (BSA Listing #176-82-SM)

### UL CLASSIFIED

UL555 Listing R5531, UL555S Listing R5531



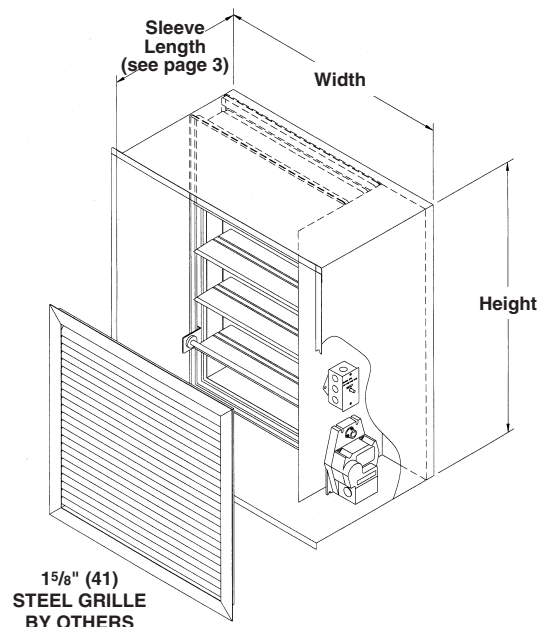
SEE COMPLETE  
MARKING  
ON PRODUCT

**FM Approvals**  
Specification Tested Product  
(Option)

### FEATURES

The FSD36FA offers:

- EFL (Electric Fuse Link) or PFL (Pneumatic Fuse Link) heat-actuated release devices permit controlled (rather than instantaneous) closure through the damper actuator. The EFL and PFL allow the damper to automatically reopen after a test, smoke detection or power failure conditions.
- EFL is standard on dampers with electric actuators.
- PFL is standard on dampers with pneumatic actuators.
- EFL's may be ordered on dampers with pneumatic actuators but require an additional EP switch to be ordered.



# DIMENSIONAL INFORMATION

## MINIMUM SLEEVE LENGTHS

No Duct Connections  
Non or "Flush" Grille Application

ACTUATOR TYPE	SLEEVE LENGTH (SEE NOTES)*		
	WITH EFL or PFL STANDARD	WITH TS150 or SP100	
ELECTRIC - 120VAC	UNITS 8" (203) AND ABOVE	UNITS OVER 21" (533) HIGH	UNITS 21" (533) AND UNDER
	10" (254)	12" (305)	14" (356)
PNEUMATIC - 25 PSI	CONSULT RUSKIN FOR PNEUMATIC ACTUATORS		

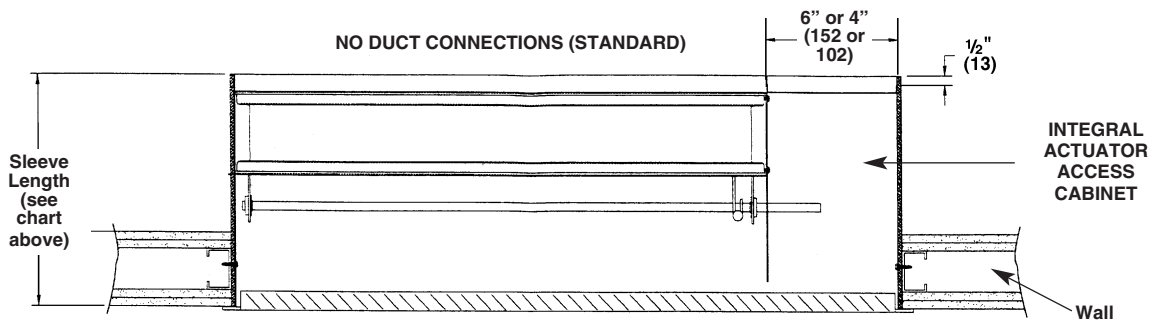
### NOTES

1. Add 2" (51) to sleeve lengths shown above if grille application.
2. Add 4" (102) to sleeve lengths shown above if grille with OBD application.
3. Add 2" (51) to sleeve lengths shown above if duct connection is required.

## TYPICAL INSTALLATION (OVERHEAD-PLAN VIEW)

### DUCT CONNECTIONS

Standard construction is for no duct connection as shown.  
For optional duct connection add 2" (51) to end of sleeve (opposite grille).



### GRILLE SET-BACK

- 1<sup>5</sup>/<sub>8</sub>" (41) set-back for grille is standard as shown.  
3<sup>5</sup>/<sub>8</sub>" (92) set-back for grille with OBD is optional.

### NOTES:

1. See basic installation sheet for complete details on the installation.
2. Dampers less than 14" (356) wide include a 4" (102) wide integral actuator access cabinet.

## SIZING CRITERIA

### HOW TO SIZE FRONT ACCESS DAMPER AND ACCESS GRILLE

There are two separate ways to order these dampers (see examples below).

***If damper size itself is critical:***

1. First determine what size (damper) is required.
2. Add for the actuator cabinet.
3. Now combine the dimensions from step 1 & 2 to determine overall width of your steel framed grille, which will equal the "A" dimension or width to order.

Example: A 24" x 24" damper with H2000/3 – in order to maintain the 24" x 24" (610 x 610) damper itself requirement order a 30" x 24" (762 x 610) (6" actuator cabinet) which then becomes the required grille size.

***If damper size includes actuator cabinet size:***

(Note: damper size is reduced by actuator cabinet width.)

1. Size steel framed grille using normal grille selection process.

Example: A 24" x 24" damper with H2000/3 – the damper itself is 18" x 24" (457 x 610) and the actuator cabinet is 6" x 24" (152 x 610). Thus, the grille size remains 24" x 24".

## SUGGESTED 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. Dampers shall have a fire rating of 1 1/2 hours in accordance with the latest edition of UL555 and shall be classified as Leakage Class I Smoke Dampers in accordance with the latest version of UL555S. Dampers shall be warranted to be free from defects in material and workmanship for a period of 5 years after date of shipment.

In addition the dampers and their actuators shall have a UL555S elevated temperature rating of 250°F (121°C) or 350°F (177°C) depending upon the actuator. Appropriate electric or pneumatic actuators shall be installed by the damper manufacturer at time of damper fabrication. Electric actuators shall have been energized hold open tested for a period of at least 1 year with no spring return failures.

Each 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 through the use of fusible links is unacceptable.

Dampers shall be constructed so that actuators and all accessories are accessible from the grille side. Actuators and accessories shall be housed within an integral cabinet on the side of the damper frame and shall not be installed in the air stream in front of the damper. Damper frame shall be a roll-formed structural hat channel, reinforced at the corners, formed from a single piece of minimum 16 gage (1.6) galvanized steel. Damper blades shall be single skin galvanized steel 16 (1.6) gage minimum with three longitudinal grooves for reinforcement. Bearings shall be stainless steel turning in an extruded hole in the frame. Blade edge seals shall be silicone rubber and galvanized steel mechanically locked in to the blade edge (adhesive type seals are not acceptable). Each damper shall be supplied with a factory mounted sleeve of 14" (356) minimum length. The sleeve shall be flanged to accept a steel framed grille and (if specified) an OBD. The sleeve shall be covered with fire resistant material. Dampers shall be Ruskin model FSD36FA.

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

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