

## FSD60FA "FRONT ACCESS" COMBINATION FIRE/SMOKE DAMPER

1½ HOUR UL555 RATED, UL555S LEAKAGE CLASS I

### APPLICATION

The FSD60FA 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 FSD60FA damper may be installed vertically in walls with fire resistance ratings of less than 3 hours and are rated for airflow and leakage in either direction.

### STANDARD CONSTRUCTION

#### FRAME/SLEEVE

16 gauge (1.6) galvanized, single piece, hat-shaped channel.

#### BLADES

Airfoil-shaped, double-skin, single piece construction with 14 gauge equivalent thickness, maximum 6" (152) wide.

#### ACTUATOR CABINET

Cabinet houses actuator and thermal device for access from grille side of damper. See page 3 for sizing details.

#### LINKAGE

Concealed in frame.

#### BEARINGS

Stainless steel sleeve, pressed into frame.

#### SEALS

Blade - edge type silicone material for smoke seals to 450°F (232°C) and galvanized steel for flame seal to 1900°F (1038°C) mechanically fastened to the blade.

Jamb - stainless steel, flexible metal compression type.

### DAMPER SIZES

Sizes indicated below are for ratings of 2,000 FPM (10.2 m/s) and 4 in. w.g. (1kPa)

#### MINIMUM SIZE

Assembly minimum of 12" width x 8" height (305 x 203) with EFL, 14" width x 8" height (356 x 203) with SP100, DTS or TS150. Damper size not including actuator cabinet is 8"w x 8"h (203 x 203).

#### MAXIMUM SIZE

Assembly maximum of 48" width x 48" height (1219 x 1219) for EFL, SP-100 or TS-150.

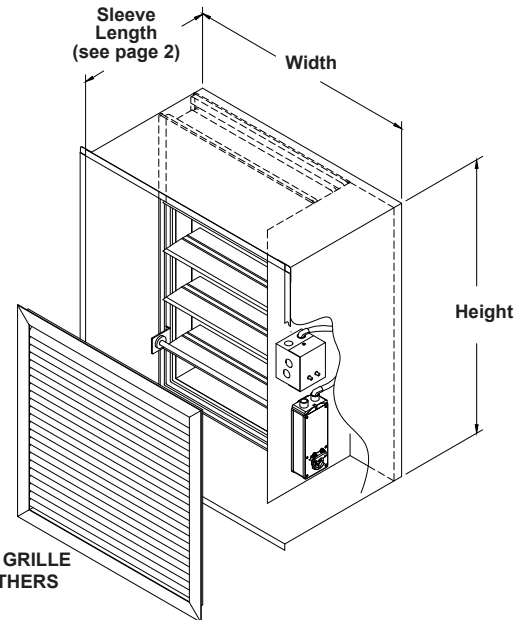
Damper size not including actuator cabinet is 32"w x 48"h (813 x 1219)

### OPTIONS

- See FSDxxGA for other Grille Access damper selections.
- **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.
- **Added Grille depth for OBD.**

### NOTES

1. Dampers furnished actual size to inside of sleeve.
2. Finished wall opening to be 1/2" larger than damper width x height. See installation instructions for additional details.
3. Dimensions shown in parentheses ( ) indicate millimeters.



Model FSD60FA meets the requirements for fire, smoke and combination fire/smoke dampers established by:

- **National Fire Protection Association NFPA Standards** 90A, 92A, 92B, 101 & 105
- **ICC International Building Codes**
- **CSFM California State Fire Marshal** Listing (#3225-0245:0126)
- **New York City (MEA 252-05-E)**

#### UL CLASSIFIED

UL555 Listing R5531, UL555S Listing R5531



SEE COMPLETE  
MARKING  
ON PRODUCT

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

### FEATURES

The FSD60FA 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 165°F is standard on dampers with electric actuators. 212°F (100°C), 250°F (121°C), or 350°F (177°C) are options.
- PFL 165°F is standard on dampers with pneumatic actuators. 212°F (100°C), 250°F (121°C), or 350°F (177°C) are options.
- EFL's may be ordered on dampers with pneumatic actuators but require an additional EP switch to be ordered.

## FSD60FA Sleeve Length Units with EFL/PFL

FSD60FA				
Actuator Model	Minimum *Size	Allowable Grille Depth	Sleeve Length w/o Duct Connection	Sleeve Length w/2" Duct Connection
FSLF series FSTF series	12" x 8" (305 x 203)	Flush	10" (254)	12" (305)
		1 5/8" (41)	12" (305)	14" (356)
		3 5/8" (76)	14" (356)	16" (406)
MS4104 MS4109	12" x 16" (305 x 406)	Flush	10" (254)	12" (305)
		1 5/8" (41)	12" (305)	14" (356)
		3 5/8" (76)	14" (356)	16" (559)
FSAF FSNF	12" x 16" (305 x 406)	Flush	10" (254)	16" (406)
		1 5/8" (41)	12" (305)	18" (457)
		3 5/8" (76)	14" (356)	20" (508)
MS4120	12" x 17" (305 x 432)	Flush	10" (254)	12" (305)
		1 5/8" (41)	12" (305)	14" (356)
		3 5/8" (76)	14" (356)	16" (406)
331-4827	14" x 18" (356 x 457)	Flush	12" (305)	14" (356)
		1 5/8" (41)	14" (356)	16" (406)
		3 5/8" (76)	16" (406)	18" (457)
331-2961	14" x 18" (356 x 457)	Flush	14" (356)	16" (406)
		1 5/8" (41)	16" (406)	18" (457)
		3 5/8" (76)	18" (457)	20" (508)

\*Includes actuator cabinet

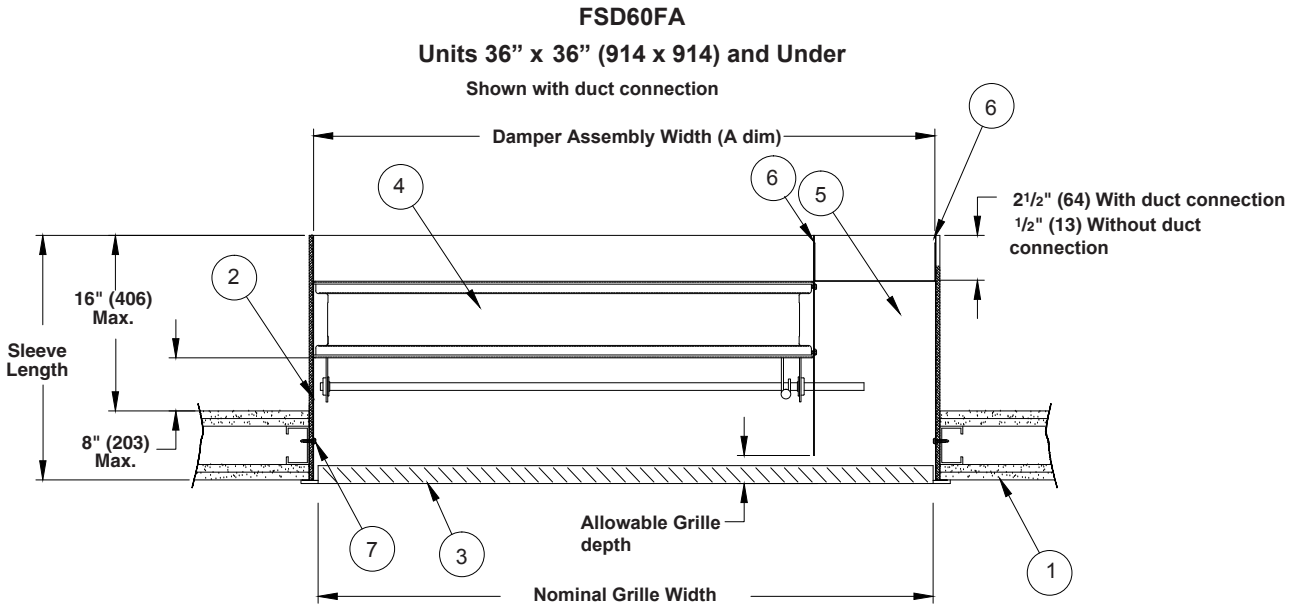
## FSD60FA Sleeve Length Units with SP-100, TS-150, DTS, DTS/SP100

FSD60FA				
Actuator Model	Minimum *Size	Allowable Grille Depth	Sleeve Length w/o Duct Connection	Sleeve Length w/2" Duct Connection
FSLF series FSTF series	14" x 8" (356 x 203)	Flush	14" (356)	16" (406)
		1 5/8" (41)	16" (406)	18" (457)
		3 5/8" (76)	18" (457)	20" (508)
MS4104 MS4109	14" x 16" (356 x 406)	Flush	14" (356)	16" (406)
		1 5/8" (41)	16" (406)	18" (457)
		3 5/8" (76)	18" (457)	20" (508)
FSAF FSNF	14" x 16" (356 x 406)	Flush	14" (356)	16" (406)
		1 5/8" (41)	16" (406)	18" (457)
		3 5/8" (76)	18" (457)	20" (508)
MS4120	14" x 17" (356 x 432)	Flush	14" (356)	16" (406)
		1 5/8" (41)	16" (406)	18" (457)
		3 5/8" (76)	18" (457)	20" (508)
MS4120 FSAF FSNF	14" x 32" (356 x 813)	Flush	12" (305)	14" (356)
		1 5/8" (41)	14" (356)	16" (406)
		3 5/8" (76)	16" (406)	18" (457)

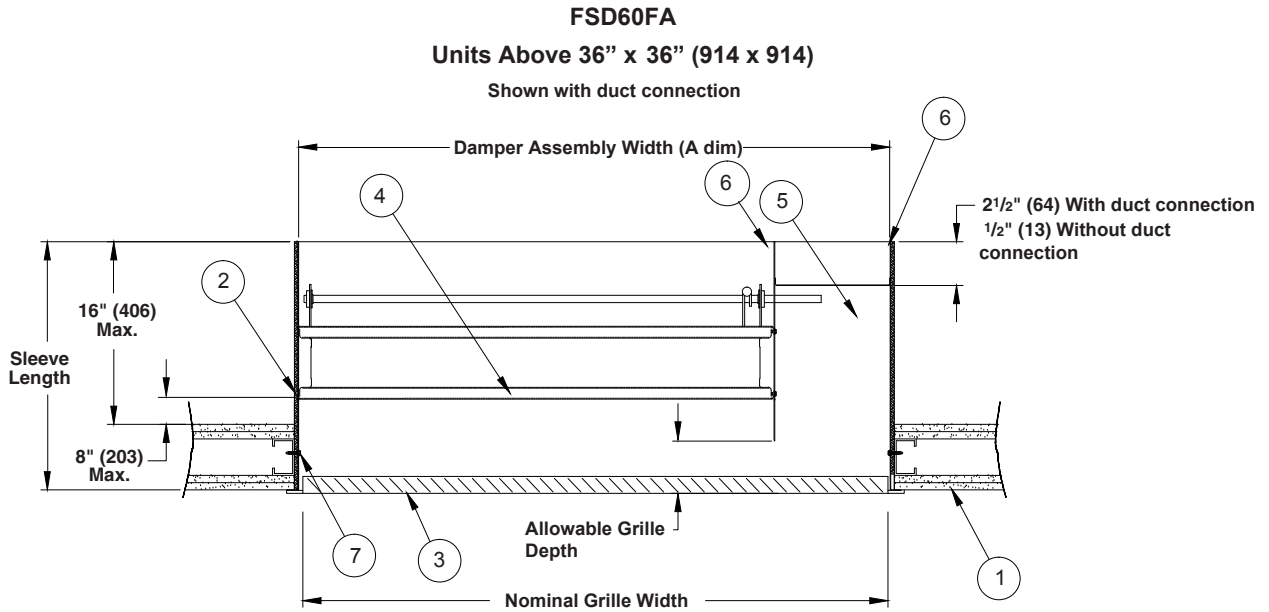
\*Includes actuator cabinet

Consult Ruskin for pneumatic applications.

# TYPICAL INSTALLATION (OVERHEAD - PLAN VIEW)

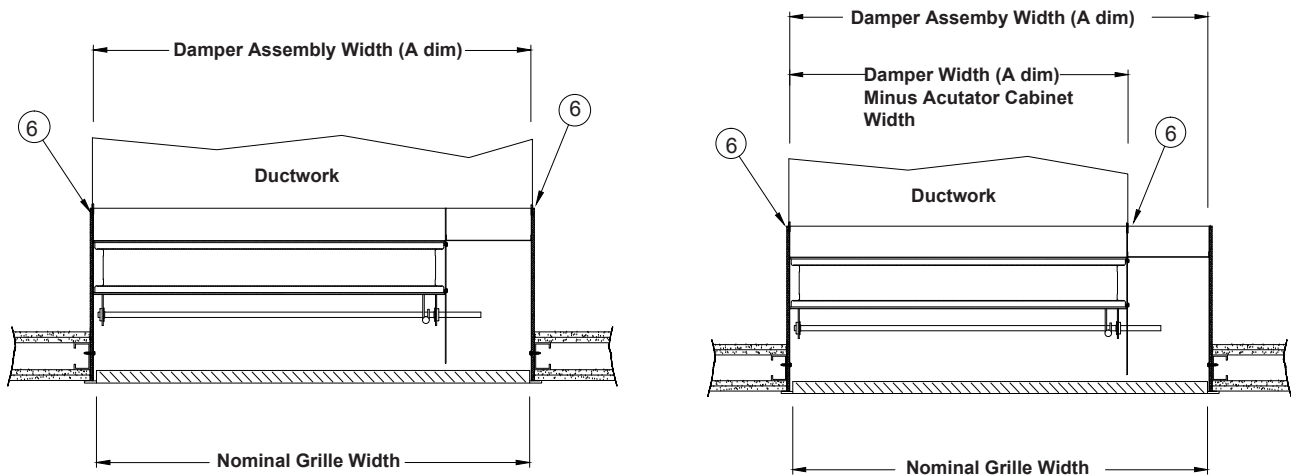


ITEM	DESCRIPTION
1.	UL rated wall assembly (metal stud or masonry)
2.	Fire/Smoke damper sleeve
3.	Grille (steel framed) By Others
4.	FSD60FA
5.	Actuator and accessories cabinet. Refer to important note.
6.	Duct connection (if required)
7.	Fasteners (see Ruskin installation instructions)



FSD60FA dampers larger than 36" x 36" (914 x 914) are installed with grille on opposite side of damper from jackshaft.

## DUCTWORK MOUNTING OPTIONS



## 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 NFPA 90A, 92A, 92B, 101, and 105. 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 constructed of one piece, 16 gauge galvanized steel formed into a 5" x 1" (127mm x 25mm) structural hat channel. The uni-frame construction with reinforced corners ensures best structural integrity and reduced racking prior to installation. Damper blades shall be constructed of one-piece roll formed galvanized steel with full length structural reinforcement formed to a true airfoil shape. 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 inch (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 FSD60FA.

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

**RUSKIN**<sup>®</sup>

3900 Dr. Greaves Rd.  
Kansas City, MO 64030  
(816) 761-7476  
FAX (816) 765-8955  
www.ruskin.com