

Application

Model SSFSDR-511 is a combination fire smoke damper constructed out of 304 stainless steel with round style blades. The SSFSDR-511 has been qualified to 4,000 fpm (20.3 m/s) and 4 in. wg (1 kPa) for operation and dynamic closure in emergency fire smoke situations.

Ratings

UL 555 Fire Resistance Rating

Fire Rating: 1½ hours

Dynamic Closure Rating: Actual ratings are size dependent

Velocity: Up to 4000 fpm (20.3 m/s)

Pressure: Up to 4 in. wg (1 kPa)

UL 555S Leakage Rating

Leakage Class: I

Operational Rating: Actual ratings are size dependent

Velocity: Up to 4000 fpm (20.3 m/s)

Pressure: Up to 4 in. wg (1 kPa)

Temperature: Up to 350°F (177°C) - depending upon the actuator

Construction

	Standard	Optional
Frame Material	304SS	-
Frame Material Thickness	20 ga. (1 mm)	-
Blade Material	Double skin 304SS	-
Blade Material Thickness	14 ga. (2 mm) equivalent	-
Blade Seal	Silicone	-
Axle Bearings	316SS	-
Axle Material	½ in. (13 mm) 316SS	-
Closure Device	Fusible Link	RRL , RRL/OCI , TOR
Closure Temperature	165°F (74°C)	212°F (100°C), 250°F (121°C), 286°F (141°C), 350°F (177°C)



* Dimensions (dia.) furnished approximately ⅛ in (3mm) undersize.



See complete marking on product.

UL 555 & UL 555S Classification R13317

CAN/ULC S112 Classified Fire Damper

CAN/ULC S112.1 Classified Smoke Damper

Model SSFSDR-511 meets the requirements for smoke dampers established by:

National Fire Protection Association

NFPA Standards 80, 90A, 92, 101 & 105

International Building Codes (IBC)

California State Fire Marshal

Listing #: 3225-0981: 0112 (fire)

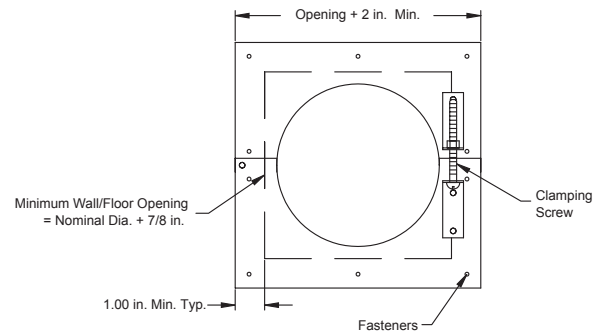
Listing #: 3230-0981: 0113 (smoke)

Size Limitations

Diameter	Minimum Size	Maximum Size
Inches	6	24
mm	152	610

Options

- Electric actuators to accomplish smoke management and system functions
- One retainer plate required, additional retainer plate available
- [Greenheck Test Switches \(GTS\)](#)
- [OCI \(Open Closed Indication switches\)](#)
- [Momentary switch](#)

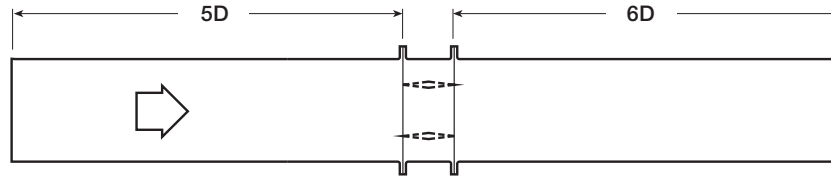


Pressure Drop Data

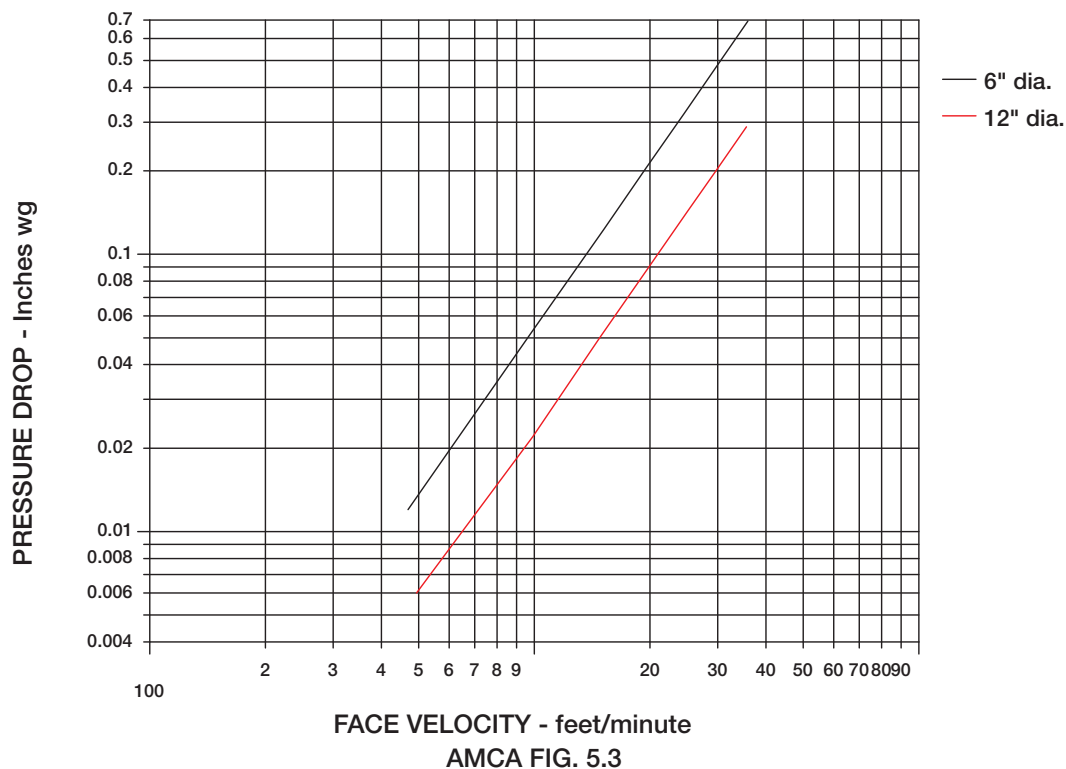
This pressure drop testing was conducted in accordance with AMCA Standard 500-D using the configuration shown. All data has been corrected to represent standard air at a density of .075 lb/ft³ (1.201 kg/m³). Actual pressure drop found in any HVAC system is a combination of many factors. This pressure drop information along with an analysis of other system influences should be used to estimate actual pressure losses for a damper installed in a given HVAC system.

AMCA Test Figure

Figure 5.3 illustrates a fully ducted damper. This configuration has the lowest pressure drop of the three test configurations because entrance and exit losses are minimized by straight duct runs upstream and downstream of the damper.



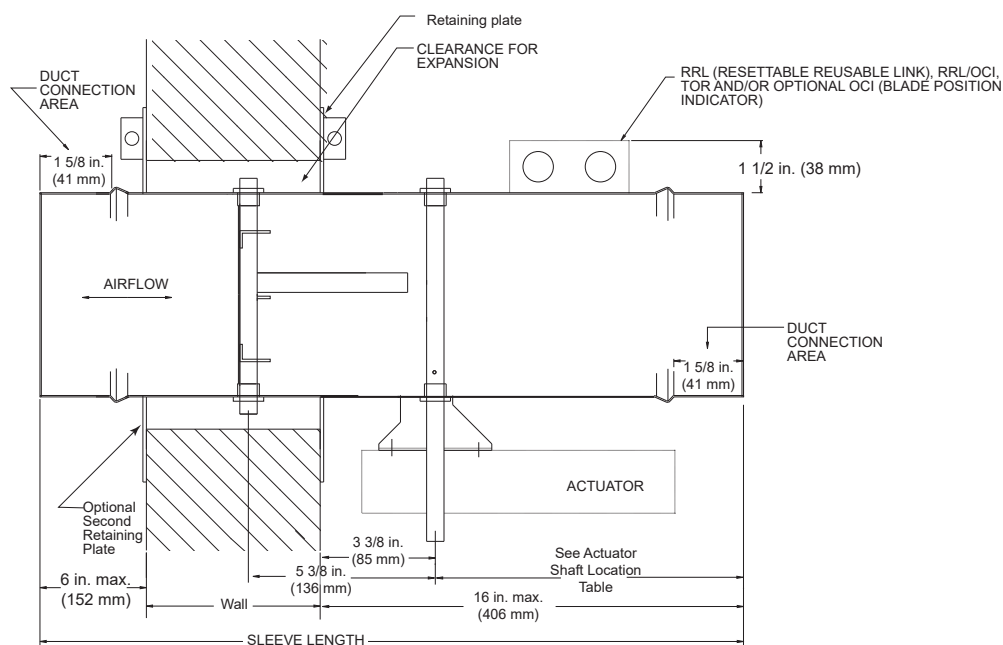
VELOCITY VS. PRESSURE DROP



Sleeve Length and Actuator Shaft Location

Wall Thickness	Sleeve Length		
	Fusible Link	RRL	RRL/OCI, TOR, OCI
Up to 6½ in. (165)	16 in. (406)	18 in. (457)	20 in. (508)
Up to 8½ in. (216)	18 in. (457)	20 in. (508)	22 in. (559)
Up to 10½ in. (267)	17 ⅝ in. (448)	22 in. (559)	24 in. (610)
Over 10½ in. (267)	Consult Greenheck		

Dimensions in inches (mm).



TOP VIEW OF DAMPER

Actuator Shaft Location				
Control Device	Diameter -in inches (mm)			
	≥ 6 to ≤10 ⅞ (≥152 to ≤257)	>10 ⅞ to ≤11 ⅞ (≥257 to ≤283)	>11 ⅞ to ≤14 ⅞ (≥283 to ≤359)	>14 ⅞ (>359)
Fusible Link	3 ⅛ (78)	3 ⅛ (78)	3 ⅛ (78)	3 ⅛ (78)
RRL	5 ⅞ (144)	4 ⅞ (119)	4 ⅞ (119)	4 ⅞ (119)
RRL/OCI	7 ⅞ (189)	7 ⅞ (189)	7 ⅞ (189)	7 ⅞ (189)
TOR	7 ⅞ (189)	7 ⅞ (189)	7 ⅞ (189)	7 ⅞ (189)



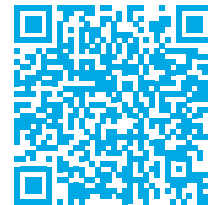
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