# 

SSSMDR-501 Round Smoke Damper

#### **Application**

Model SMDR-501 is round smoke damper with low leakage. The SMDR-501 is qualified to 4,000 fpm (20.3 m/s) and 4 in. wg (1 kPa) for operational closure in emergency smoke control situations, for use in HVAC system applications.

### Ratings

| 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                                     |



\* Dimensions (dia.) furnished approximately 1/8 in (3mm) undersize.

#### Construction

|                             | Standard                   | Optional        |
|-----------------------------|----------------------------|-----------------|
| Frame Material              | 304SS                      | -               |
| Frame Material<br>Thickness | 20 ga. (1 mm)              | 16 ga. (1.5 mm) |
| Blade Material              | Double skin 304SS          | -               |
| Blade Material<br>Thickness | 14 ga. (2mm)<br>equivalent | -               |
| Blade Seal                  | Silicone                   | -               |
| Axle Bearings               | 316SS                      | -               |
| Axle Material               | ½ in. (13 mm) 316SS        | -               |

#### **Size Limitations**

| Diameter | Minimum | Maximum  |
|----------|---------|----------|
| in. (mm) | 6 (152) | 24 (610) |

## Options

- BACNet test module 120V or 24V
- Electric actuators to accomplish smoke management and system functions
- OCI (Open Closed Indication switches)



See complete marking on product. UL 555S Classification R13317

Model SMDR-501 meets the requirements for smoke dampers established by:

National Fire Protection Association NFPA Standards 90A, 92, 101 & 105 International Building Codes (IBC) California State Fire Marshal Listing #: 3230-0981: 0113



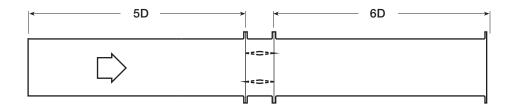
#### **Pressure Drop**

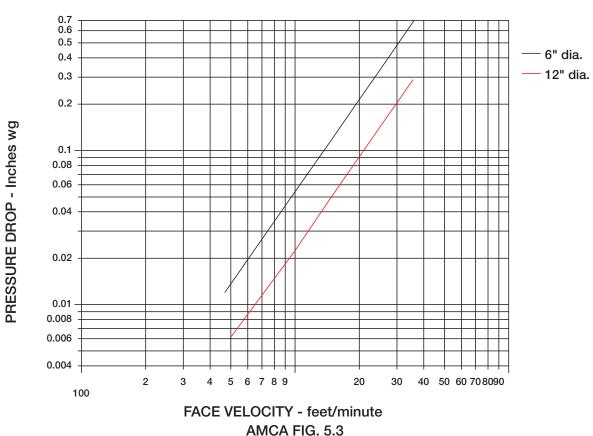
This pressure drop testing was conducted in accordance with AMCA Standard 500-D using the configuration shown. All data has been corrected to represent standard air at a density of .075 lb/ft<sup>3</sup>(1.201 kg/m<sup>3</sup>).

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 Figures**

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**



**INSTALLATION** 









WARRANTY



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