



# KA1

### **Smoke Damper**

Leakage Class I • Temperature 250°F or 350°F • Galvanized Steel • Airfoil Blade

### STANDARD CONSTRUCTION

FRAME: 51/2" x 7/8" x 16-GA galvanized steel hat channel

BLADES: 20-GA galvanized steel double skinned (equal to 14-GA);

Parallel action **AXLES:** Plated solid steel stub

BEARINGS: Oil impregnated bronze

LINKAGE: Plated steel angle and crank plates with stainless steel

pivots; In-jamb type

STOPS: 18-GA galvanized steel at head and sill

BLADE SEALS: Silicone
JAMB SEALS: Stainless steel

**SLEEVE:** Minimum 20-GA galvanized steel by 18" long (sizes

greater than 84" wide or 84" high require minimum 18-GA)

CAULKING: Hardcast Irongrip 601 or UL-listed equivalent

FINISH: Mill on galvanized steel

ACTUATOR: Electric or pneumatic; Factory-installed for Power-Open/

Spring-Close (fail close) operation; External left hand mounted as viewed from jackshaft side of damper

### **OPTIONS**

Right hand and/or internal actuator mounting locations (restrictions apply) Integral Dual Position Indication (IDPI) switches

Model SM-501 Flow-rated smoke detector (10" minimum damper height)

Model 2151 No flow emoke detector (12" minimum damper height)

Model 2151 No-flow smoke detector (12" minimum damper height)

Tab-Lock retaining angles

Stainless steel bearings

Copper tubing (for pneumatic actuators)

Sleeves of various depths and gauge thicknesses

No sleeve or sideplate only (restrictions apply)

Round or oval transitions

Short-width (<12") and/or short-height (<8") transitions

### **NOTES**

- 1. Damper frames are provided approximately  $^{1/4}$ " undersized. The addition of a sleeve will increase the size of the assembly.
- 2. Damper with smoke detector must have a minimum sleeve of 19" (10.5" on the actuator side and 3" on the non-actuator side).

### DAMPER SIZES

Orientation	Horizontal & Vertical		
Panels	Min Panel	Max Panel	Max Assy
Rectangular	4"Wx4"H (12"Wx8"H frame)	36"Wx48"H	144"Wx96"H or
			288"Wx48"H
Round	4" dia. (12"Wx8"H frame)	34" dia.	60" dia.
Oval	4"Wx4"H (12"Wx8"H frame)	34"Wx46"H	106"Wx60"H

\*Dampers smaller than minimum frame size require a transtion. Reference SD-TRFS.

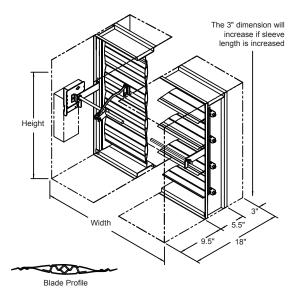
## UNDERWRITERS LABORATORIES INC.® CLASSIFIED DYNAMIC SMOKE DAMPER

LEAKAGE RESISTANCE CLASS I



This smoke damper meets the construction and performance requirements of:

- · Underwriters Laboratories Inc. Standard 555S
- · National Fire Protection Association Standards 80 and 90A
- ICC's International Building Code
- California State Fire Marshal Listing #3230-1328:111
- Underwriters Laboratories Inc. Approved for dual direction airflow and dynamic conditions.
- Underwriters Laboratories Inc. Classified for use in smoke control systems for Leakage Class I and 250°F or 350°F.
- · Actuators must be controlled by a smoke detection system.









### **Smoke Damper**

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#### **Operations Ratings:**

Maximum Differential Pressure: 4 in. wg Maximum Velocity: 2000 fpm

### Leakage Ratings:

UL Class I

4 cfm per sq. ft. maximum @ 1 in. wg

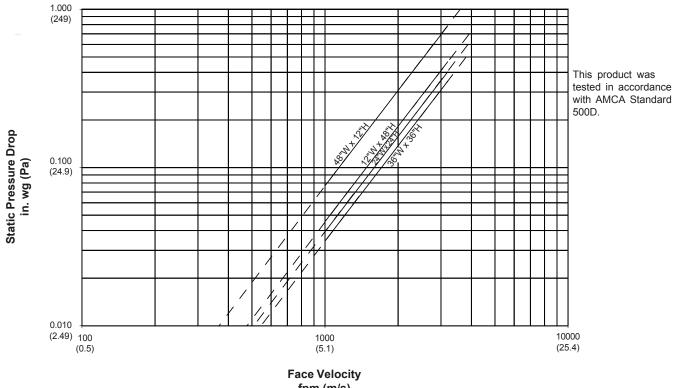
8 cfm per sq. ft. maximum @ 4 in. wg

### Sound Ratings:

None Available

### **Pressure Drop Ratings:**

The pressure drop data shown below is based on laboratory conditions. The test setup does not take into account elbows or other duct fittings that are part of every actual duct system. The configuration of the actual duct system immediately upstream and downstream of the damper often contributes more pressure loss than the damper itself.



fpm (m/s)

AMCA Figure 5.3