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## Application

Model SESMD-201 is a leakage rated 316SS smoke damper with 3V style blades for operational closure in emergency smoke control situations. Model SESMD-201 may be installed vertically (with blades running horizontally) or horizontally and is rated for airflow and leakage in either direction.

## **Ratings**

#### UL 555S Leakage Rating

Leakage Class: I Operational Rating: Actual ratings are size dependent Velocity: Up to 2000 fpm (10.2 m/s) Pressure: Up to 6 in. wg (1.5 kPa) Temperature: Up to 350°F (177°C) - depending upon the actuator



RH

W&H dimensions furnished approximately ½ in. (6mm) undersize. (Add sleeve thickness for overall sleeved damper dimension) Internal left hand drive is shown.



See complete marking on product. UL 555S Classification R13317

## Model SESMD-201 meets the requirements for smoke dampers established by:

National Fire Protection Association NFPA Standards 90A, 92, 101 & 105

**IBC International Building Codes** 

**CSFM California State Fire Marshal** Leakage (Smoke) Damper Listing (#3230-0981:104)

## **Size Limitations**

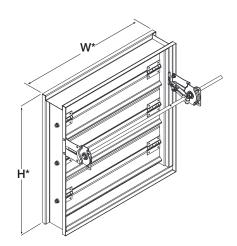
		Maxim	um Size	
W x H	Minimum Size	Single Section	Multip	le Section
	UIEC		Horizontal	Vertical
Inches	4 x 4	24 x 30	48 x 30	88 x 72
mm	102 x 102	610 x 762	1219 x 762	2235 x 1829

\* Overall damper size is 8 in. x 6 in. (203 mm x 152 mm).



## Construction

	Standard	Optional
Frame Material	316SS	-
Frame Material Thickness	16 ga. (1.5 mm)	-
Frame Type	5 in. x 1in. (127 mm x 25 mm) hat channel	-
Blade Action	Opposed	-
Blade Material	316SS	-
Blade Material Thickness	16 ga. (1.5 mm)	-
Blade Type	3V	-
Blade Orientation	Horizontal	-
Linkage	316SS out of airstream, concealed in jamb	-
Axle Bearings	316SS	-
Axle Material	316SS	-
Blade Seals	Silicone	-
Jamb Seals	316SS	-
Mounting	Vertical	Horizontal



#### Note:

The frames are constructed with reinforced corners. Low profile head and sill are used on sizes less than 17 in. (432 mm) high for lower pressure drop and improved damper performance.

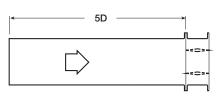
## **Options**

- BACnet test module 120V
- BACnet test module 24V
- <u>Momentary test switch</u>
- OCI (Open Closed Indicator switches)
- <u>Retaining angles</u>
- Sealed transitions and sleeves
- <u>Smoke detector no flow</u>
- Smoke detector low flow
- Transitions: C, O, R



## **Pressure Drop**

#### AMCA Figure 5.2



12 in. x 12 in. (305mm x 305mm)		
Velocity (fpm)	Pressure Drop (in. wg)	
500	0.04	
1000	0.14	
1500	0.31	
2000	0.55	
2500	0.86	
3000	1.24	
3500	1.69	
4000	2.20	

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24 in. x 24 in. (610mm x 610mm)		
Velocity (fpm)	Pressure Drop (in. wg)	
500	0.02	
1000	0.07	
1500	0.16	
2000	0.29	
2500	0.45	
3000	0.65	
3500	0.89	
4000	1.16	

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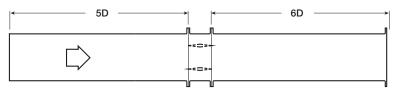
36 in. x 36 in. (914mm x 914mm		
Velocity (fpm)	Pressure Drop (in. wg)	
500	0.01	
1000	0.04	
1500	0.09	
2000	0.16	
2500	0.25	
3000	0.36	
3500	0.49	
4000	0.64	

12 in. x 48 in. (305mm x 1219mm)		
Velocity (fpm)	Pressure Drop (in. wg)	
500	0.01	
1000	0.06	
1500	0.13	
2000	0.23	
2500	0.36	
3000	0.52	
3500	0.70	
4000	0.92	

#### 48 in. x 12 in. (1219mm x 305mm)

Velocity (fpm)	Pressure Drop (in. wg)
500	0.03
1000	0.10
1500	0.23
2000	0.41
2500	0.63
3000	0.91
3500	1.24
4000	1.62

#### AMCA Figure 5.3



12 in. x 12 in.	(305mm x	305mm
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Velocity (fpm)	Pressure Drop (in. wg)
500	0.02
1000	0.09
1500	0.20
2000	0.36
2500	0.56
3000	0.81
3500	1.10
4000	1.44

#### AMCA Figure 5.5

12 in. x 12 in. (305mm x 305mm)

Velocity (fpm)

500

1000

1500

2000

2500

3000

3500 4000 Pressure Drop

(in. wg)

0.06

0.22

0.50

0.89

1.39

2.00

2.72

3.55

Velocity (fpm)	Pressure Drop (in. wg)
500	0.01
1000	0.04
1500	0.09
2000	0.16
2500	0.25
3000	0.35
3500	0.48
4000	0.63

24 in. x 24 in. (610mm x 610mm)

Velocity (fpm)

500

1000

1500

2000

2500

3000

3500

4000

Pressure Drop

(in. wg)

0.03

0.14

0.31

0.54

0.85

1.22

1.66

2.17

#### 36 in. x 36 in. (914mm x 914mm)

Velocity (fpm)	Pressure Drop (in. wg)
500	0.01
1000	0.03
1500	0.06
2000	0.11
2500	0.17
3000	0.24
3500	0.33
4000	0.42

12 in. x 48 in. (305mm x 1219mm)

Velocity (fpm)	Pressure Drop (in. wg)
500	0.01
1000	0.04
1500	0.10
2000	0.17
2500	0.27
3000	0.39
3500	0.53
4000	0.70

48 in. x 12 in. (1219mm x 305mm)

Velocity (fpm)	Pressure Drop (in. wg)	
500	0.02	
1000	0.07	
1500	0.16	
2000	0.29	
2500	0.45	
3000	0.64	
3500	0.88	
4000	1.14	



36 in. x 36 in. (914mm x 914mm)

Velocity (fpm)

500

1000

1500

2000

2500

3000

3500

4000

Pressure Drop

(in. wg)

0.03

0.12

0.26

0.46

0.73

1.05

1.42

1.86

12 in. x 48 in. (305mm x 1219mm)

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Velocity (fpm)	Pressure Drop (in. wg)		
500	0.03		
1000	0.13		
1500	0.30		
2000	0.53		
2500	0.83		
3000	1.19		
3500	1.62		
4000	2.11		

#### 48 in. x 12 in. (1219mm x 305mm)

Velocity (fpm)	Pressure Drop (in. wg)		
500	0.04		
1000	0.17		
1500	0.38		
2000	0.67		
2500	1.04		
3000	1.50		
3500	2.05		
4000	2.67		



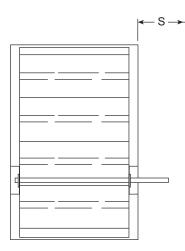


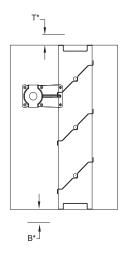
Greenheck Fan Corporation certifies that the model SESMD-201 shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Programs. The AMCA Certified Ratings Seal applies to air performance ratings only.

## **Space Envelopes**

Externally mounted actuators always require space outside of the damper sleeve. The "S" dimension illustrates the clearance required for various available actuators.

Worst case space envelopes shown below. Exact dimensions may vary based on specifice damper configuration. Consult factory for specific space envelope if necessary.





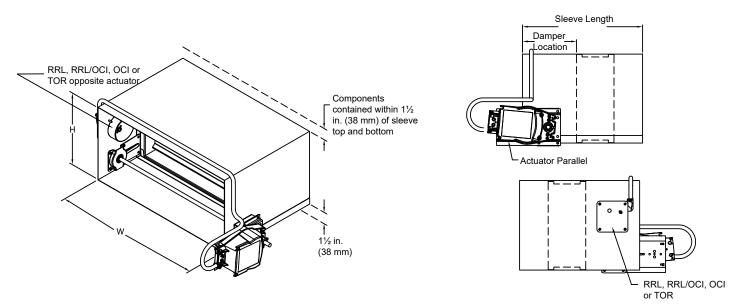
Actuator Type/Model	B*	T*	S				
	With	With	Piggyback				
	RRL, RRL/OCI, or TOR	RRL, RRL/OCI, or TOR	No	Yes			
Belimo							
FSAFB24-SR (-S)	1½ in (38mm)	9¼ in. (235mm)	6 in. (152mm)	9 in. (229mm)			
FSLF series	8 in. (203mm)	1½ in (38mm)	6½ in. (165mm)	NA			
FSNF series	1½ in (38mm)	9¼ in. (235mm)	6 in. (152mm)	9 in. (229mm)			
FSTF Series	8 in. (203mm)	1½ in (38mm)	6½ in. (165mm)	NA			
Siemens							
GJD Series	7 in. (178mm)	1½ in (38mm)	6½ in. (165mm)	NA			
GRD Series	1½ in (38mm)	7½ in (191mm)	6½ in. (165mm)	NA			
GXVD Series	1½ in (38mm)	9¼ in. (235mm)	6 in. (152mm)	9 in. (229mm)			
Honeywell							
MS4103, MS8103 Series	8¾ in. (222mm)	1½ in (38mm)	6½ in. (165mm)	NA			
MS4104, MS4604, MS8104 Series	1½ in (38mm)	8½ in (216mm)	6½ in. (165mm)	NA			
MS4109, MS4609, MS8109 Series	1½ in (38mm)	8½ in (216mm)	6½ in. (165mm)	NA			
MS4120, MS4620, MS8120 Series	1½ in (38mm)	9½ in. (241mm)	6 in. (152mm)	9 in. (229mm)			

 $^{\ast}$  For dampers 18 in. (457mm) or more in height these dimensions are 0 in.



## **Contained Actuator Option**

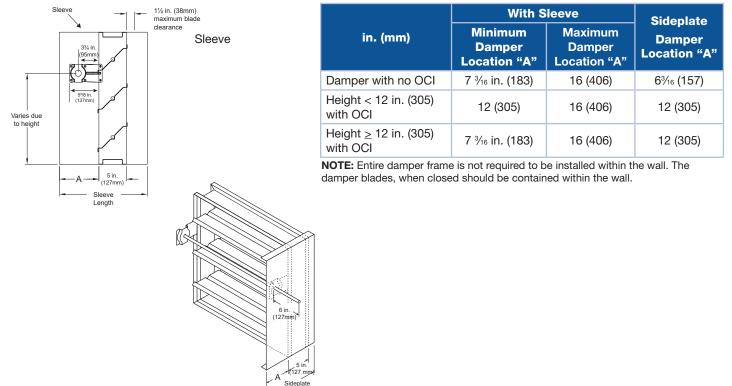
Dampers can be ordered with a "contained actuator option". This option will result in the actuator being oriented such that it extends no more than 1½ inches above or below the sleeve. Note that some damper configurations that are 11 inches high or less will have the OCI mounted on the side opposite the actuator when the contained actuator option is selected.



### **Sleeve and Sideplate Dimension**

The drawings below and corresponding table show the position of the SESMD-201 damper when mounted in a factory sleeve ("A" dimension). The standard mounting locations provide enough space for the mounting of actuators, controls and allow space for installation of retaining angles and duct connections. The following options may affect the range of available mounting locations: smoke detector, NEMA 7 enclosure, transitions, security bars, grille tabs.

The standard location of a damper mounted in a factory sleeve ("A" dimension) is shown below. The damper can be positioned at other locations within a range of 6 in. (152mm) to 16 in. (406mm) for the "A" dimension.

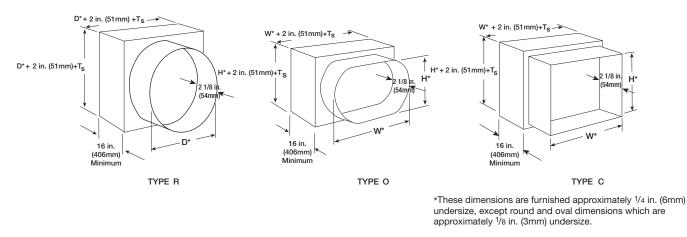


Sideplate

Length\*

## **Transitioned Damper Dimensions**

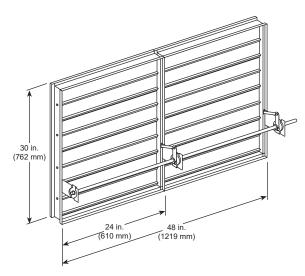
When a fire/smoke damper is being used in conjunction with round or oval ductwork, the SESMD-201 can be supplied in a factory sleeve with round or oval transitions on both ends of the sleeve. Dampers should be ordered to the duct dimensions. Drawings below show overall damper size.

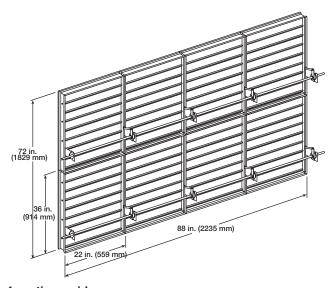


T<sub>S</sub> = (2)(Sleeve Thickness)

## **Multiple Section Sizing**

Dampers larger than maximum single section size are supplied as a factory assembly of two or more sections of equal size. The following figures show maximum damper section size and assembly configurations for multi-section dampers.





2 sections

4 sections wide 2 sections high





**INSTALLATION** 



**SPECIFICATIONS** 



DAMPER SELECTION GUIDE





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