

# COMBINATION FIRE/SMOKE DAMPER AIRFOIL BLADE • HIGH PERFORMANCE 3 HR. LABEL • SQUARE, RECTANGULAR OR OVAL DUCT CONNECTION MODEL: 1223-3 (TYPE C) SLEEVE ENCLOSURE

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#### **QUALIFICATIONS:**

- UL 555 & CAN/ULC-S112 CLASSIFIED DYNAMIC FIRE DAMPER 3 hr. Label (File # R9492).
- UL 555S CLASSIFIED SMOKE DAMPER (File # R9492) Leakage Class I or II at 250°F or 350°F elevated temperature.
- City of New York. MEA # 366-03-M.
- California State Fire Marshal: Fire Damper Listing No. 3225-0935:0106.
- Meets NFPA 80, 90A, 92A, 92B, 101 and 105 as well as IBC and NBC (Canada) Building Code requirements.
- Maximum velocity: Up to 4000 fpm @ 8" w.g. (20 m/s @ 2 kPa).

The 1220-3 Series dampers are ideal for applications where building codes require both a fire damper for the protection of ductwork penetrations in walls or floors that have a fire resistance rating of up to 4 hours and also require a leakage rated damper for operational smoke control in static or dynamic smoke management systems.

The 1220-3 Series has been especially designed and tested to provide premium performance and is AMCA licensed. It offers the lowest leakage class available and is qualified for installation with airflow in either direction and inverted mounting. Airfoil blade design and elimination of blade sills, top and bottom, provide a low pressure drop design.

Unique, inter-locking double skin blade design provides flame and smoke seal under fire conditions.

### STANDARD CONSTRUCTION:

Frame: 5" x 7/8" x 16 ga. (127 x 22 x 1.6) galvanized steel hat channel.

Blades: 14 ga. (2.0) equivalent galvanized steel formed airfoil on 5 1/2" (140) centers.

Linkage:	Concealed in frame. 12 ga. (2.7) plated steel.
Bearings:	1/2" (13) dia. self-lubricating oilite bronze.
Axles:	1/2" (13) dia. plated steel double bolted to blades.
Jackshaft:	1/2" (13) dia. cadmium plated steel.
Jamb Seals:	Stainless steel.

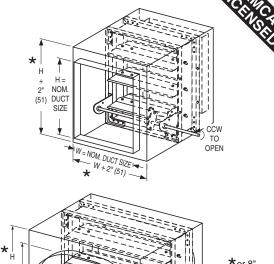
### Heat Responsive Device (Controlled Closure):

ERL (Electric Resettable Link) is standard on dampers with electric actuators:  $250^{\circ}F$  ( $121^{\circ}C$ ) standard.  $165^{\circ}F$  ( $74^{\circ}C$ ),  $212^{\circ}F$  ( $100^{\circ}C$ ) and  $350^{\circ}F$  ( $176^{\circ}C$ ) available.

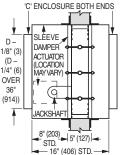
PRL (Pneumatic Replaceable Link) is standard on dampers with pneumatic actuators: 212°F (100°C) standard. 165°F (74°C) and 280°F (138°C) available.

#### Sizes (Duct W x H):

Velocity/	Elevated	Minimum	Maximum			
Pressure	Temp.	Single Section	Single	Section	Multiple Section	
Rating	°F	Vert./Horiz.	Vertical	Horizontal	Vertical	
24, 34, 36, 46	250/350	4" x 4" (102 x 102) (overall damper size is 8" x 8"	34" x 46" (864 x 1168)	30" x 46" (762 x 1168)	118" x 94" (2997 x 2388) (maximum each section is 30" x 48" [762 x 1219]).	
48	250		34" x 46" (864 x 1168)	30" x 46" (762 x 1168)	118" x 94" (2997 x 2388) (maximum each section is 30" x 48" [762 x 1219]).	
48	350	[203 x 203] min.).	34" x 22" (864 x 559)	30" x 22" (762 x 559)	118" x 46" (2997 x 1168) (maximum each section is 30" x 24" [762 x 610]).	







Minimum Sleeve Length		
16 (406)		
20 (508)		
24 (610)		
28 (711)		

## BASE MODEL SELECTION:

1223-3	Standard factory sleeve (caulked to UL requirements) 16" long x 20 ga. (406 x 1.0) (18 ga. [1.3] for dampers over 84" [2134] in width).			
1223-3	Non-standard sleeve.			
	Specify length ga.			
	Available up to 36" (914) dependent			
	upon wall thickness and 10 through			
	20 ga. (3.5 through 1.0).			

For installation instructions, see IOM-1220INST.

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ensions are in inches	(m

PROJECT:	Dimensions are in inches (mm).			
ENGINEER:	DATE	<b>B SERIES</b>	SUPERSEDES	DRAWING NO.
CONTRACTOR:	7 - 26 - 21	1200	5 - 7 - 12	1220-3-4



CONTRACTOR:

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MOUNTING:				LCTMC7
ACTUATOR SELECTION:				
POWER REQUIREMENT:				
<ul> <li>120 120 VAC</li> <li>230 230 VAC</li> <li>24 24 VAC</li> <li>25 25 psi Pneumatic</li> </ul>				
LEAKAGE RATING:				
<ul> <li>I Class I (Standard)</li> <li>II Class II</li> </ul>				
DYNAMIC VELOCITY/PRESSURE RA	TING:			
<ul> <li>24 2000 fpm @ 4" w.g. (Standard)</li> <li>34 3000 fpm @ 4" w.g. (Optional)</li> <li>36 3000 fpm @ 6" w.g. (Optional)</li> <li>46 4000 fpm @ 6" w.g. (Optional)</li> <li>48 4000 fpm @ 8" w.g. (Optional)</li> </ul>				
ELEVATED TEMPERATURE:				
□         250°F (121°C) (Standard)           □         350°F (176°C)				
CLOSURE DEVICE:	CLOSURE TEMPERATURE:			
<ul> <li>ERL Electric Resettable Link</li> <li>PRL Pneumatic Link</li> <li>DTO Dual Temp. Override Sensor</li> </ul>	□ 250°F (121°C) (std.)       □ 165°F         □ 212°F (100°C) (std.)       □ 280°F         □ 250°F / 165°F       □ 350°F         (121°C / 74°C) (std.)       (176°C)	(138°C)	<b>212°F</b> (100	°C)
FL Fusible Link	□ 165°F (74°C) (std.) □ 212°F	,		
	electric actuator (external mount, fail ope 864] Vertical, 30" x 34" [762 x 864] Horiz		(121°C),	
ACTUATOR MOUNTING:				
<ul> <li>EXT External (Standard)</li> <li>INT Internal (Optional)</li> </ul>				
ACTUATOR FAIL POSITION:				
<ul> <li>CL Closed (Standard)</li> <li>OP Open (Optional) (Requires I</li> </ul>	FL Fusible Link)			
OPTIONS:				
BS         Stainless steel bearings           MLS-300         Position Indicator Switch Particular	ack			
<b>QS1</b> Quick–set retaining angle (				
<b>Quick</b> -set retaining angles	(two sides)			
		For installa	ation instruction	ons, see IOM-1220INST.
SCHEDULE TYPE:			Page	2 of 2
PROJECT:		D	-	e in inches (mm)
ENGINEER:		DATE	B SERIES	SUPERSEDES DRAWING NO.

7 - 26 - 21

1200

5 - 7 - 12

1220-3-4