



MODEL FSD-3V-S-211 AND MODEL FSD-3V-S-231 COMBINATION FIRE/SMOKE DAMPER (WITH SLEEVE)

U.L. 555 CLASSIFIED 1 1/2 AND 3 HOURS / U.L. 555S CLASSIFIED CLASS I
U.L.C. S112 CLASSIFIED 1 1/2 AND 3 HOURS
VERTICAL AND HORIZONTAL MOUNTINGS

U.L. 555S CLASSIFIED
AT 250°F OR 350°F
DEPENDENT UPON
MOTOR/OPERATOR
*SEE MOTOR/OPERATOR SCHEDULE

16" x 20 Ga.
Side Plate Optional



LISTED AND LABELLED BY:



FEATURES

- The FSD-3V-S-2X1 series Combination Fire/Smoke Dampers have been designed and tested to exceed all U.L., U.L.C. and N.F.P.A. requirements for fire dampers as well as smoke dampers. They are intended for use where building codes call for the fire damper to also operate as a smoke damper.

- FSD-3V-S-211 is U.L. 555 and U.L.C. S112 listed and labeled as a 1-1/2 hour fire damper.
- FSD-3V-S-231 is U.L. 555 and U.L.C. S112 listed and labeled as a 3 hour fire damper.

- U.L. and U.L.C. listed for both vertical and horizontal mountings.

- U.L. 555S / U.L.C. S112.1 listed and labeled as a Leakage Class I rated Smoke Damper with airflow in both directions. Class I provides for a maximum leakage of 8 cfm per sq. ft. at 4.0 inches static pressure. As we are constantly expanding our U.L./U.L.C. listings, we suggest you contact the factory for current information.

- Fusible link/actuator (DLT-1) provides an automatic override system to close and latch damper in the fire mode. **Also available with automatic resettable/override release options: Model STO/R (single thermostat) to provide the fire fighter with complete discretionary control of smoke functions during a fire/smoke emergency. (See STO/R and DTO/R submittal drawings for complete details).** Spring return type damper motor controlled by a smoke detector is recommended to provide proper operation in the smoke mode.

- Also available are options EFL (Electric Fusible Link) and PFV (Pneumatic Fusible Valve). These options provide quick and economical ways to check damper operations and also provide a Systematic Closure Control. Option PFV allows damper operation without the need/cost for an E-P valve and electrical connection at the damper.

- Available optional 3/4" flanged sleeve for grille mounting (see fig.9 of installation instructions). If actuator is to be externally mounted, it is suggested to order flange to be field installed.

Standard Construction:

Frame: Roll-formed galvanized steel hat-section with staked corners with integral bracing.

Blades: 16 ga. Roll-formed galvanized steel.
Minimum width: 4.250" (108 mm)
Maximum width: 7.250" (184 mm)

Bearings: Bronze Oilite, press-fit into frame.

Axles: Square, plated steel.

Seals: Pressure sensitive 450°F silicone blade edge seals and flexible metal jamb seals.

Linkage: Concealed in frame.
Linkage bars are .125" (3.2 mm) thick plated steel.

Heat Responsive Devices:

Fusible Links, 165° F and 212° F

Snap Disc, 250° F and 350° F

Finish: Mill galvanized.

Spring: Stainless steel.

Sizes: Minimum Size: 8"w x 6"h

(203 mm x 152 mm)

Maximum UL Listed Size:

Single Section: 36"w x 48"h
(914 mm x 1219 mm)

1-1/2 Hr. Vertical: Multiple Assembly-108"w x 96"h
(2743 mm x 2438 mm)

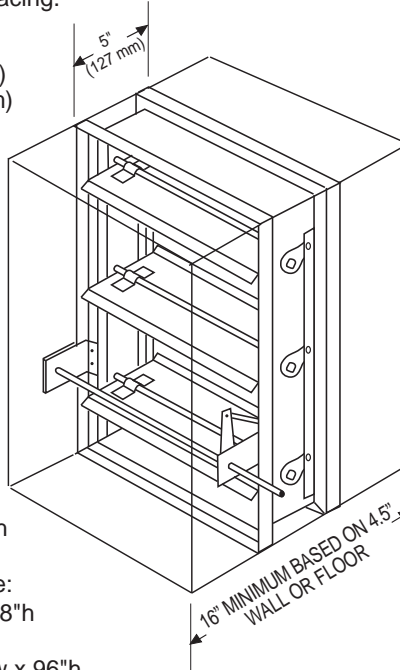
1-1/2 Hr. Horizontal: Multiple Assembly-72"w x 96"h
(1828 mm x 2438 mm)

3 Hr. Vertical: Multiple Assembly-72"w x 96"h
(1828 mm x 2438 mm)

3 Hr. Horizontal: Maximum UL Listed Size:
72"w X 96"h (1828mm x 2438mm)

Notes:

- Dampers are furnished approximately 1/4" (6.4 mm) smaller than given duct dimensions.
- Not recommended with blades running vertically.



PATENTED: U.S. 4,487,214
CDN. 1,165,661
U.K. 2,098,475

Suggested Specification

Combination Fire/Smoke Dampers shall be Model: FSD-3V-S-211, by NCA Manufacturing. Fire/Smoke Dampers shall bear the Underwriters' Laboratories labels for both Fire Dampers and Smoke Dampers. U.L. 555S / U.L.C. S112.1 rating shall be Class I with leakage not to exceed 8 cfm per sq. ft. at 4.0 inches static pressure for any size. Linkage shall be of the concealed type for maximum free area.

Manufacturer's Recommendations

All moving parts of the damper must be inspected and cycled at intervals not greater than every six months and in accordance with the latest edition of NFPA 90A, 92A, local codes and the actuator manufacturer. In addition, fuse links shall be removed and inspected for corrosion. Dry lubricants are recommended.

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Project:

Contractor:

Location:

Address:

Architect:

P.O. Number:

Engineer:

Date:

NCA MANUFACTURING, INC. ■ 1036 SOUTH JUPITER ROAD ■ GARLAND, TEXAS 75042 ■ TEL. 972-276-5002 FAX 972-276-6747

FSD-3V-S-211 - 02-05



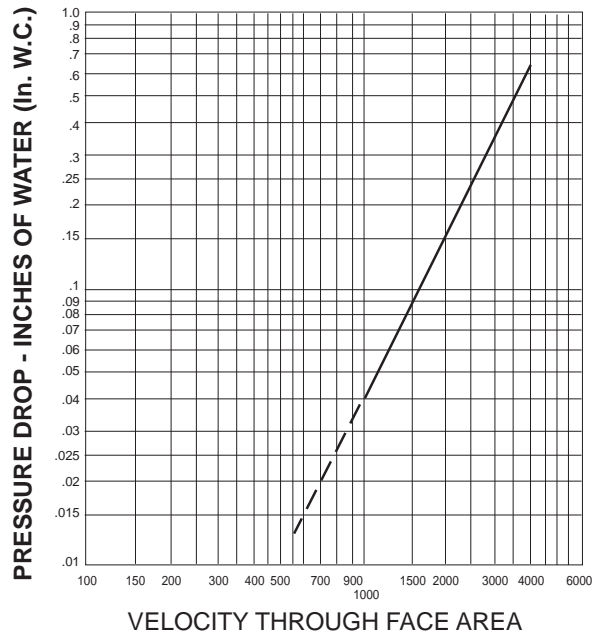
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COMBINATION FIRE/SMOKE DAMPER (WITH SLEEVE)**
U.L. 555 CLASSIFIED 1¹/₂ AND 3 HOURS / U.L. 555S CLASSIFIED CLASS I
U.L.C. S112 CLASSIFIED 1¹/₂ AND 3 HOURS
VERTICAL AND HORIZONTAL MOUNTINGS

PERFORMANCE DATA

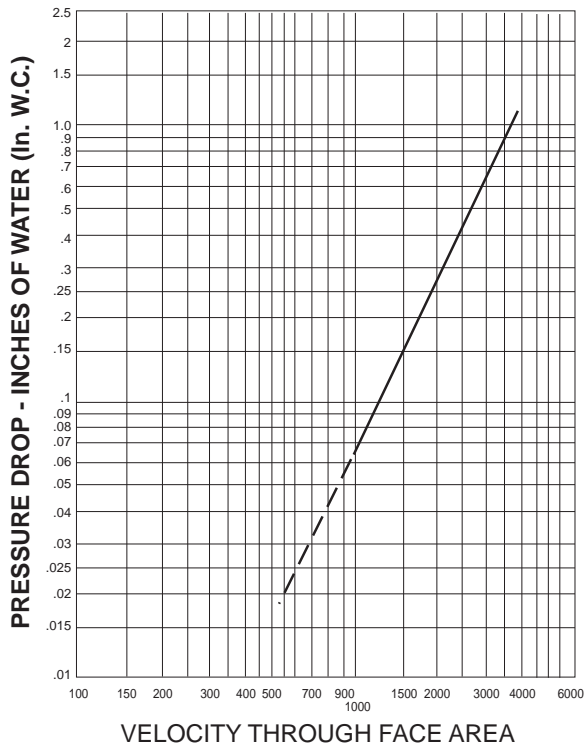
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Pressure drop testing was done by an independent laboratory to the AMCA Standard 500-D, Fig. 5.3 ductwork upstream & downstream.

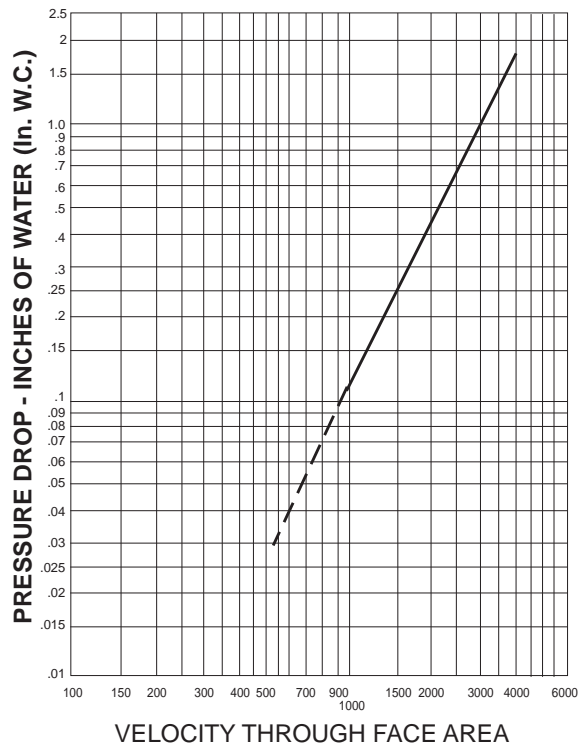
DAMPER SIZE 36 x 36



DAMPER SIZE 24 x 24



DAMPER SIZE 12 X 12



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