

## Application

The FD-4D-OP fire damper employs curtain style blades for point-of-origin control of fire in dynamic HVAC systems. These specialty dampers are approved for installation with the closed plane of the curtain up to 2½" (64) outside the fire rated partition and allow for direct service access from the face of the damper through the HVAC grille. The FD-4D-OP is qualified to 4,000 ft/min (20.3 m/s) and 4 in.wg. (1.5 kPa) and may be installed in vertical walls or partitions, or horizontally in floors or assemblies with fire resistance ratings up to 2 hours.

## Standard Construction

**Frame:** 22 gauge (0.85) galvanized steel.

**Blades:** 24 gauge (0.70) galvanized steel.

**Sleeve:** 14" x 18 gauge (406 x 1.3) galvanized steel with ¾" (19) flange and factory installed thermal insulation on four sides.

**Fire Closure Device:** Fusible Link.

**Fire Closure Temperature:** 165°F (75°C).

**Minimum Size:** 6" x 6" (102 x 102)

**Maximum Size:** 36" x 36" (914 x 914)

## Options

- Installation:  Vertical Mount  Horizontal Mount
- Velocity Rating  2000 fpm (10.2m/s)  4000 fpm (20.3 m/s)
- Alternate factory installed sleeve:
  - Gauge:  16 (1.6)  14 (2.0)  10 (3.5)
  - Length:  16" (406)  12" (305)  10" (254)
- Transitions:  Round  Oval
  - Duct connections:  1" (25) S-clip
  - DM25  DM35  WARD
- Retaining angle system:
  - Gauge:  20 (1.0)  16 (1.6)
  - Picture Frame:  SSPF (single-side)  DSPF (2-sided)
  - Individual angle set:  SS (single-side)  DS (2-sided)
- Alternate fire closure temperature
  - 212°F (100°C).

## Ratings

**UL 555 Fire Resistance Rating:** 1½ hour (vertical and horizontal)

**Maximum Dynamic Closure Velocity:** 4,000 fpm (20.3 m/s)

**Maximum UL555S Rated Pressure:** 4 in.wg. (1.0 kPa)



## Listings

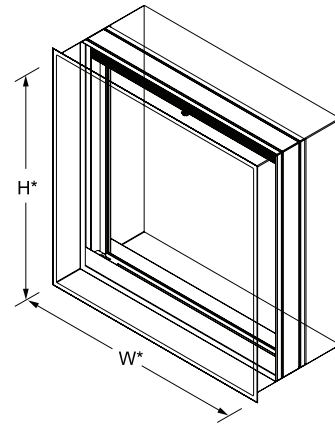
**UL 555 and 555S listing:** R14981

**CSFM listing:** 3225-1404:101

**New York City MEA listing:** 295-98-E

**Meets NFPA Standards:** 90A, 92A, 92B and 101

**Meets Building Code Standards:** IBC, NBC, NFPA, SBC and UBC

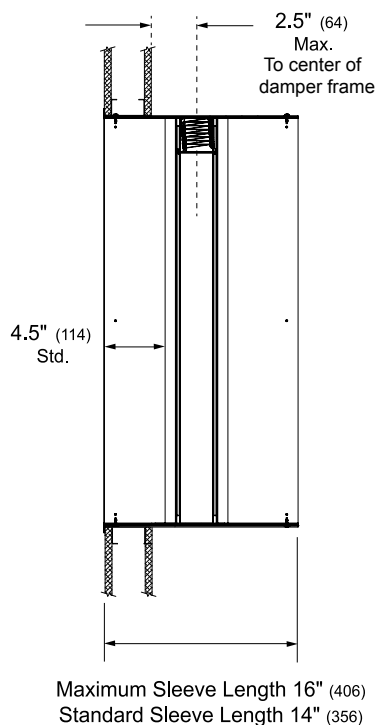


### Model **FD-4D-OP** (standard)

\*Standard sleeve O.D. including thermal blanket wrap, is approximately 3/8" (9) over nominal duct size. Standard sleeve I.D. is approximately nominal duct size.

**NOTE:** The opening for the damper assembly in the fire wall must be sized appropriately. If not, serious damage to the thermal blanket wrap could occur and this will nullify the U.L. rating. Contact the factory if necessary for additional information.

## Dimensional Data



## Blade Stack Dimensional Data

Single Section Sizes Only	
Nominal Duct Height 'H'	Blade Stack Height
6" (152)	1-1/16" (27)
7" (178)	1-3/16" (30)
8" (203)	1-3/16" (30)
9" (229)	1-3/16" (30)
10" (254)	1-7/16" (37)
11" (279)	1-7/16" (37)
12" (305)	1-7/16" (37)
13" (330)	1-9/16" (40)
14" (356)	1-9/16" (40)
15" (381)	1-13/16" (46)
16" (406)	1-13/16" (46)
17" (432)	1-13/16" (46)
18" (457)	1-15/16" (49)
19" (483)	1-15/16" (49)
20" (508)	2-3/16" (56)
21" (533)	2-3/16" (56)
22" (559)	2-3/16" (56)
23" (584)	2-5/16" (59)
24" (610)	2-5/16" (59)
25" (635)	2-9/16" (65)
26" (660)	2-9/16" (65)
27" (686)	2-9/16" (65)
28" (711)	2-11/16" (68)
29" (737)	2-11/16" (68)
30" (762)	2-15/16" (75)
31" (787)	2-15/16" (75)
32" (813)	2-15/16" (75)
33" (838)	3-1/16" (78)
34" (864)	3-1/16" (78)
35" (889)	3-5/16" (84)
36" (914)	3-5/16" (84)