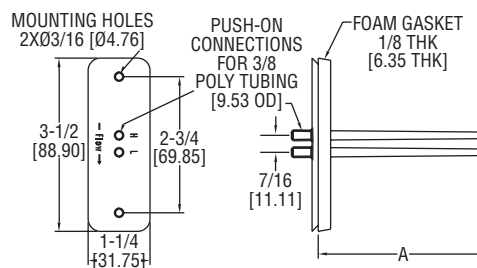
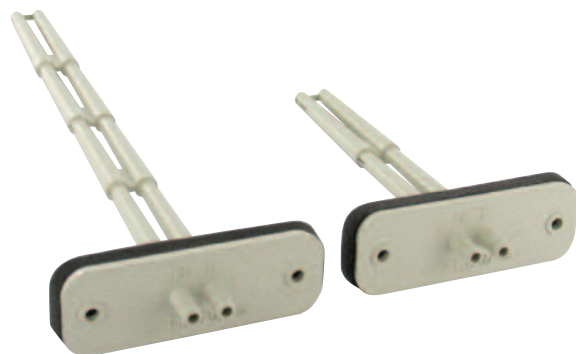




## Series PAFS-1000 Averaging Flow Sensor

### Specifications -Installation and Operating Instructions



The Series PAFS-1000 Averaging Flow Sensor from Dwyer Instruments, Inc. is ideal for sensing differential pressure in the inlet section of variable air volume terminal units and fan terminal units. Units can also be used to sense differential pressure at other locations in the main or branch duct systems.

The "H" port senses total pressure and the "L" port senses static pressure. The difference between these signals is the differential, or velocity pressure.

Models offer up to ten sensing points and lengths of 3-5/32" to 23-29/32" (8.02 to 60.72 cm) to accommodate box sizes of 4" to 30" (10.16 to 76.20 cm).

#### INSTALLATION

The Series PAFS-1000 utilizes 1/4" ID, 3/8" OD tubing. First check that there are no sharp bends in the tubing at any connection. Bends and creases may leak over time as the tubing ages.

Connect the "H" Port to the high input on the differential pressure gage, transmitter, or switch.

Connect the "L" Port to the low input on the differential pressure gage, transmitter, or switch.

Approximate K factors for models:

|            |      |
|------------|------|
| PAFS-1002: | 1.32 |
| PAFS-1003: | 1.39 |
| PAFS-1004: | 1.46 |
| PAFS-1005: | 1.46 |
| PAFS-1006: | 1.58 |
| PAFS-1007: | 1.67 |
| PAFS-1008: | 1.78 |
| PAFS-1009: | 1.88 |
| PAFS-1010: | 2.01 |
| PAFS-1011: | 2.14 |

It may be necessary to calibrate in order to insure an accurate measurement. You can do this by completing a traverse of the duct or fan to determine the delta P sensed by the PAFS vs. the actual flow.

#### MOUNTING

1. Install the unit horizontally to assure accurate velocity readings for units ranging from 3-5/32" to 9-29/32". If using a unit longer than the PAFS-1005, which is 9-29/32", vertical mounting is recommended.
2. Determine the duct's flow direction and install the Series PAFS-1000 based on the unit's flow arrow imprint.
3. Cut a 7/8" hole in the ducting to accept the unit.
4. Attach using two self-tapping screws inserted in the 3/16" mounting holes.

#### DIMENSIONS

| Model     | Number of Sensing Points | Sensor Length        |
|-----------|--------------------------|----------------------|
| PAFS-1002 | 1                        | 3-5/32" (8.02 cm)    |
| PAFS-1003 | 2                        | 5-13/32" (13.73 cm)  |
| PAFS-1004 | 3                        | 7-21/32" (19.55 cm)  |
| PAFS-1005 | 4                        | 9-29/32" (25.26 cm)  |
| PAFS-1006 | 5                        | 12-1/2" (31.75 cm)   |
| PAFS-1007 | 6                        | 14-3/4" (37.47 cm)   |
| PAFS-1008 | 7                        | 17-1/8" (43.50 cm)   |
| PAFS-1009 | 8                        | 19-13/32" (49.29 cm) |
| PAFS-1010 | 9                        | 21-21/32" (55.01 cm) |
| PAFS-1011 | 10                       | 23-29/32" (60.72 cm) |

#### SPECIFICATIONS

**Service:** Air and compatible gases.

**Wetted Materials:** ABS/polycarbonate (UL94-5V).

**Temperature Limits:**

Operating: 40 to 120°F (4 to 49°C);

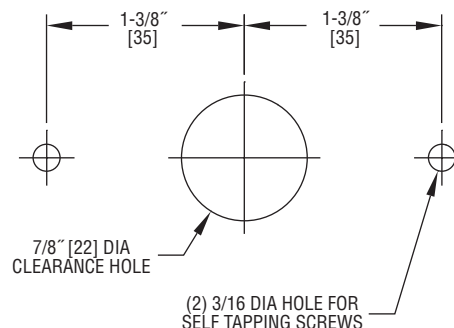
Storage: -40 to 140°F (-40 to 60°C).

**Connection:** 1/4" (6 mm) ID, 3/8" (10 mm) OD tubing.

**Mounting Orientation:** Integral flange with gasket.

**Weight:** 1 oz (28 g).

#### MOUNTING DETAILS



#### MAINTENANCE

Sensing orifices must be kept free of dust accumulation or debris. Occasional cleaning may be required.

Upon final installation of the Series PAFS-1000 Averaging Flow Sensor, no routine maintenance is required. A periodic check of system calibration is recommended. The Series PAFS-1000 is not field serviceable and should be returned if repair is needed (field repair should not be attempted and may void warranty). Be sure to include a brief description of the problem plus any relevant application notes. Contact customer service to receive a return goods authorization number before shipping.