Digital Pressure Transducer
Dry Media

Installation Instructions

NOTICE

- This product is not intended for life or safety applications.
- Do not install this product in hazardous or classified locations.
- Read and understand the instructions before installing this product.
- Turn off all power supplying equipment before working on it.
- The installer is responsible for conformance to all applicable codes.

Quick Install

1. Plan the installation. Panel or duct mount?.
2. For duct mounting, thread the probe into the rear of the device housing.
3. Configure the internal tubing for the selected installation method.
4. Mount the housing vertically.
5. Attach pilot tubing.

Product Identification

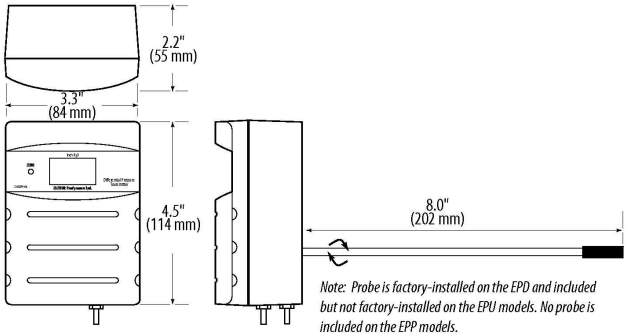
	Enclosure	Range	Local Display
EP	D = Duct P = Panel	101 = 0-1"W.C./0-250Pa 102 = 0-10"W.C./0-2.500kPa	Blank = No Display -LCD = LCD Display

	Enclosure	Range	Local Display
EP	U = Universal	105 = 0-10"W.C./0-2.500kPa	Blank = No Display -LCD = LCD Display

Accessories

AA54 Duct Probe Replacement Kit

Dimensions



Note: Probe is factory-installed on the EPD and included but not factory-installed on the EPU models. No probe is included on the EPP models.

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SPECIFICATIONS

Media Compatibility
Dry air or inert gas

Pressure Ranges - all switch selectable

EPD101/EPP101:
Unidirectional: 0.1/0.25/0.5/1.0" W.C. F.S
Bidirectional: ±0.1/±0.25/±0.5/±1.0" W.C. F.S.
Unidirectional: 25 Pa/50 Pa/100 Pa/250 Pa, F.S.
Bidirectional: ±25 Pa/±50 Pa/±100 Pa/±250 Pa, F.S.

EPD102/EPP102:
Unidirectional: 1.0/2.5/5.0/10" W.C. F.S
Bidirectional: ±1.0/±2.5/±5.0/±10" W.C. F.S
Unidirectional: 0.250 kPa/0.500 kPa/1.000 kPa/2.500 kPa, F.S.
Bidirectional: ±0.250 kPa/±0.500 kPa/±1.000 kPa/±2.500 kPa, F.S.

EPU105:
Unidirectional: 0.1/0.25/0.5/1.0/2.5/5.0/10" W.C. F.S
Bidirectional: ±0.1/0.25/0.5/1.0/2.5/5.0/10" W.C. F.S
Unidirectional: 25 Pa/50 Pa/100 Pa/250 Pa/ 0.5kPa/1.0kPa/2.5kPa, F.S.
Bidirectional: ±25 Pa/50 Pa/100 Pa/250 Pa/ 0.5kPa/1.0kPa/2.5kPa, F.S.

Response Time
Standard: T95 in 20 sec.;
Fast: T95 in 2 sec. jumper selectable

Mode
Unidirectional or bidirectional, jumper selectable

Proof Pressure
3 psid (20.6 kPa)

Burst Pressure
5 pisd (34.5 kPa)

Accuracy
±1% F.S (combined linearity and hysterisis)

Temperature Effect
1" (250Pa) models: 0.05%/°C;
10" (2.5 kPa) models: 0.01%/°C.
(Relative to 25°C) 0 to 50°C (32 to 122°F)

Zero Drift (1-year)
1" (250Pa) models: 2.0% max.
10" (2.5 kPa) models: 0.5% max.

Zero Adjust
Pushbutton aut-zero and digital input (2-pos terminal block)

Operating Environment
0-60°C (32 to 140°F); 0 to 90% RH non-condensing

Fittings
Brass barb; 0.24" (6.1 mm) O.D.

Physical
UL 94 V-O Fire Retardant ABS

ELECTRICAL

Input Power
12-30 Vdc or 24 Vac nominal

Output
Field selectable: 2-wire, loop-powered 4-20 mA (DC only, clipped and capped), or 3-wire 0-5V/0-10 V

EMC Conformances: EN 61000-6-3:2001 Class B, EN 61000-6-1:2001, EN 61000-3-2:2000, EN 61000-3-3:2001, EMC Test Methods: CISPR 22:1997 (Amended A1:2000, Class B A2:2002), IEC 61000-4-2:2002, IEC 61000-4-3:2006, IEC 61000-4-4:2004, IEC 61000-4-5:2001, IEC 61000-4-6:2004, IEC 61000-4-8:2001, IEC 61000-4-11:2004, EMC Special Note: Connect this product to a DC distribution network or an AC/DC power adaptor with proper SURGE PROTECTION (EN 61000-6-1:2001 specification requirement).

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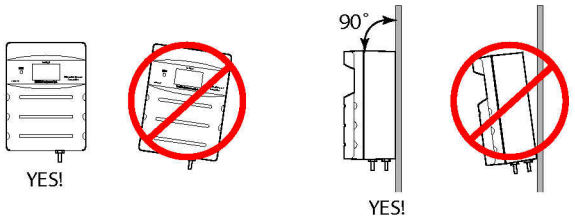
INSTALLATION

1. Plan the installation. Panel or duct mount?
2. For duct mount applications, thread the probe into the back of the device housing.
3. Configure the internal tubing for the selected installation method as shown below. Use the larger diameter tubing for the duct mount configuration.
4. Mount the transducer (see Figure 2). Position transducer vertically.
5. Determine length of pilot tubing needed.



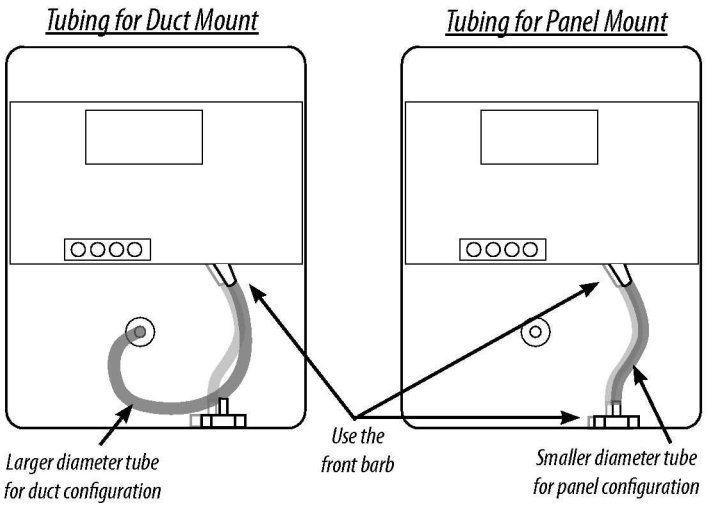


FIGURE 1 - TUBING INSTALLATION

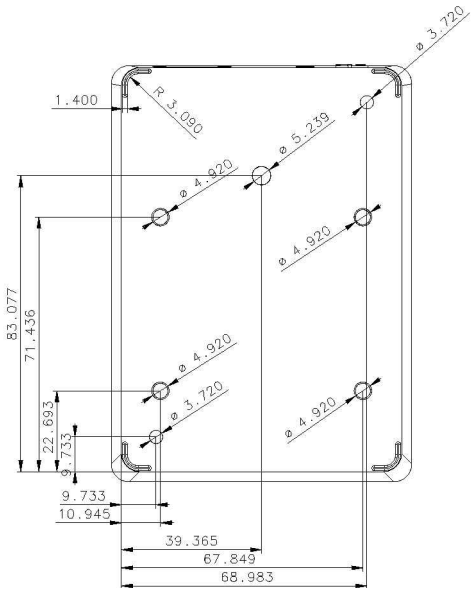


FIGURE 2 - SCREW HOLE MOUNTING

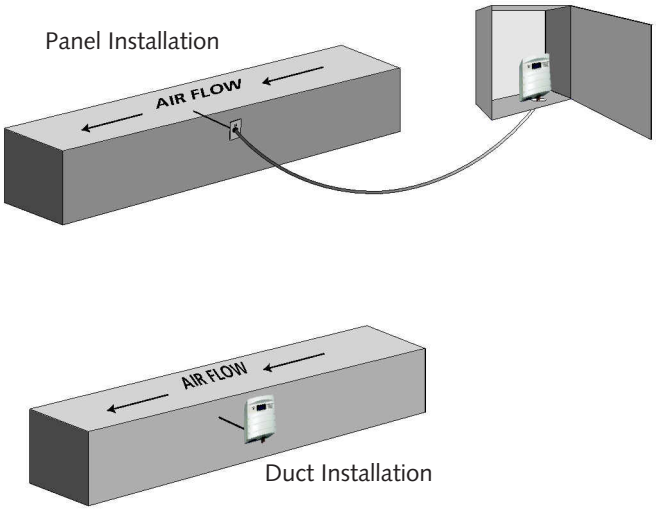


FIGURE 3 - STATIC PRESSURE

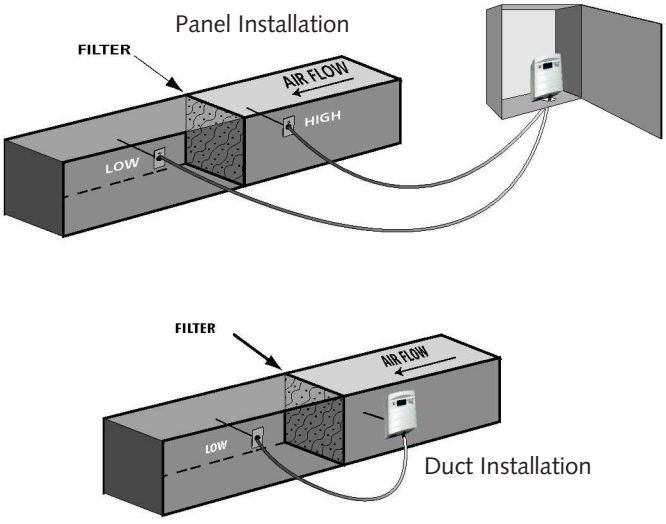


FIGURE 4 - DIFFERENTIAL PRESSURE

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WIRING & CONFIGURATION

1. Connect transmitter to control system and power supply as indicated in Figures 5 and 6.
   Options: Connect ZERO terminals to digital output (contact closure) of control system.
2. Use switch to select voltage (V) or current (mA) mode.
3. Set jumpers.
   Jumper JP4: Select 0-10V or 0-5V output span. (Voltage mode only).
   Jumper JP5: Select birectional or unidirectional mode.
   Jumper JP7: Select inches W.C. or Pascal scale.
   Jumper JP8: Select fast or standard response time.
4. Align the arrow (not the slot) on the rotary switch to desired full-scale range. LCD models will momentarily indicate selected range.

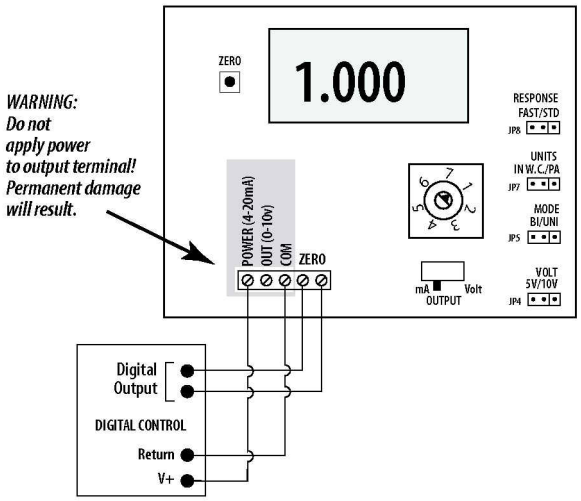

FIGURE 5 -TWO-WIRE, 4 TO 20 MA,WIRING DIAGRAM

OPERATION

IMPORTANT: EPD/EPU Series employ ceramic capacitive sensors and sophisticated temerature compensation circuitry. Sensor achieves best accuracy after initial warm-up period. During the first few minutes of operation, readings at zero pressure and lowest pressure ranges will erroneous. Following this initial warm-up period, PX Series will maintain specified accuracy and stability.

LCD DISPLAY: Display momentarily indicates range "SET" when selection is made. Pressure is normally indicated on display. Units are in inches water column (W.C.), Pascals (Pa) or kilopascals (kPa) as indicated on the display. Display shows OVER when pressure is over range.

ZERO: Press and hold the ZERO pushbutton for 2 seconds or provide contact closure on "AUX ZERO" terminal to automatically reset output and display to zero pressure. To protect the unit from accidental zero, this feature is enabled only when detected pressure is within about 0.1 W.C. (25Pa) of factory calibration.

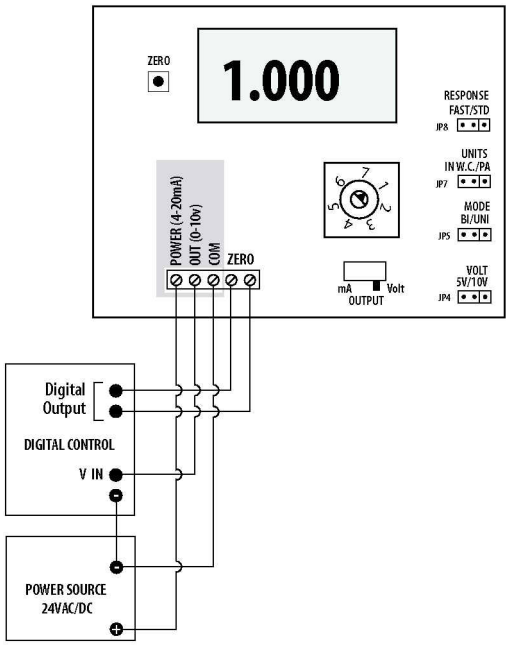

FIGURE 5 -THREE-WIRE, 0-5V/0-10V,WIRING DIAGRAM

RANGE SELECTION GUIDE

	EPP101/ EPD101		EPP102/EPD102		EPU105	
Rotary Switch Position	**Inches W.C.**	**Pascal**	**Inches W.C.**	**Pascal**	**Inches W.C.**	**Pascal**
0	0.1	25	1	250	0.1	25
1	0.25	50	1	250	0.25	50
2	0.5	100	1	250	0.5	100
3	1	250	1	250	1	250
4	1	250	2.5	0.5 kPa	2.5	0.5 kPa
5	1	250	5	1 kPa	5	1 kPa
6	1	250	10	2.5 kPa	10	2.5 kPa
7	1	250	10	2.5 kPa	10	2.5 kPa

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