

Dry Media Differential Pressure Transducers

Selectable Ranges, LCD Display, And Automatic Zero For Easy Operation

APPLICATIONS

- Static pressure in duct or room applications
- Variable air volume system control
- Filter status monitoring
- Clean rooms, hospitals, fume hoods, computer rooms, and other very low differential pressure applications

FEATURES

Exceptional accuracy and stability

- Excellent tolerance to overpressure and vibration reduces field failures
- High accuracy digital sensor maintains calibration and reduces callbacks
- High reliability sensor technology for long-term maintenance-free operation

Lowest total installed cost

- Selectable ranges & scales reduce setup time & number of models to stock
- Microprocessor-based design allows for digitally profiled sensor increasing product accuracy and reliability
- Circuit protection prevents damage due to incorrect wiring

Low-differential room pressure sensor with LCD display

- Monitors positive and negative pressure for application versatility
- Flexibility: standard and fast response modes
- LCD is ideal for setting up, troubleshooting, and measuring

SPECIFICATIONS

| | |
|------------------------------|--|
| Media Compatibility | Dry air or inert gas |
| Input Power | 12-30VDC, or 24VAC nominal; 2-wire: 20mA max.; 3-wire: 30mA max. |
| Output | Field-selectable: 2-wire, loop-powered 4-20mA (DC only, clipped and capped), or 3-wire 0-5V/0-10V |
| <i>Pressure Ranges:</i> | |
| PX: 01 | Unidirectional: 0.1/0.25/0.5/1.0" W.C. F.S., switch selectable Bidirectional: $\pm 0.1/\pm 0.25/\pm 0.5/\pm 1.0$ " W.C. F.S., switch selectable Unidirectional: 25 Pa/50 Pa/100 Pa/250 Pa, F.S., switch selectable Bidirectional: ± 25 Pa/ ± 50 Pa/ ± 100 Pa/ ± 250 Pa, F.S., switch selectable |
| PX: 02 | Unidirectional: 1.0/2.5/5.0/10" W.C. F.S., switch selectable Bidirectional: $\pm 1.0/\pm 2.5/\pm 5.0/\pm 10$ " W.C. F.S., switch selectable Unidirectional: 0.250 kPa/0.500 kPa/1.000 kPa/2.500 kPa, F.S., switch selectable Bidirectional: ± 0.250 kPa/ ± 0.500 kPa/ ± 1.000 kPa/ ± 2.500 kPa, F.S., switch selectable |
| PXU: 05 | Unidirectional: 0.1/0.25/0.5/1.0/2.5/5/10" W.C. 25Pa/50Pa/100Pa/250Pa/0.5kPa/1kPa/2.5kPa F.S. switch selectable Bidirectional: $\pm 0.1/0.25/0.5/1.0/2.5/5/10$ " W.C. 25Pa/50Pa/100Pa/250Pa/0.5kPa/1kPa/2.5kPa F.S. switch selectable |
| Response Time | Standard: T95 in 20 sec, Fast: T95 in 2 sec, switch selectable |
| Mode | Unidirectional or bidirectional, switch selectable |
| Display (option) | Signed 3-1/2 digit LCD, indicates pressure, overrange indicator |
| Proof Pressure | 3 psid (20.6kPa) |
| Burst Pressure | 5 psid (34.5kPa) |
| Accuracy | $\pm 1\%$ F.S. of selected range (combined linearity and hysteresis) |
| Temperature Effect | 1" (250Pa) models: 0.05%/°C; 10" (2.5kPa) 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" (2.5kPa) models: 0.5% max. |
| Zero Adjust | Pushbutton auto-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" (6.1mm) o.d. |
| Physical | UL 94 V-0 Fire Retardant ABS |

EMC Conformance: Low voltage directive 2006/95/EC; EMC directive 2004/108/EC.

EMC Special Note: Connect this product to a DC distribution network or an AC/DC power adaptor with proper SURGE PROTECTION (EN 61000-6-1:2007 specification requirements).



DESCRIPTION

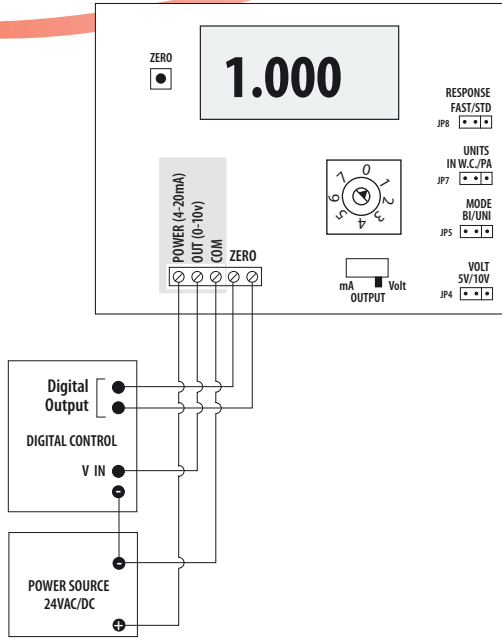
The digital PX Series differential pressure transducers utilize highly accurate, microprocessor profiled sensors. Designed to monitor duct and room pressure in commercial buildings, the PX Series offers exceptional job-site flexibility. PXP and PXD models feature four field-selectable range options. The PXU features seven field-selectable ranges, allowing just one model to cover applications for 0-0.1" to 0-10" W.C. The directional mode jumper is used to configure the transducer in unidirectional or bidirectional mode for room and building static pressure applications. All models feature a pushbutton and digital input terminal to zero the output. The microprocessor is programmed to prevent accidental zero adjustment during normal operation.

Advanced pressure sensing technology

PX Series pressure transducers utilize an advanced ceramic capacitive sensing element that provides a highly stable linear output, reducing offset errors.

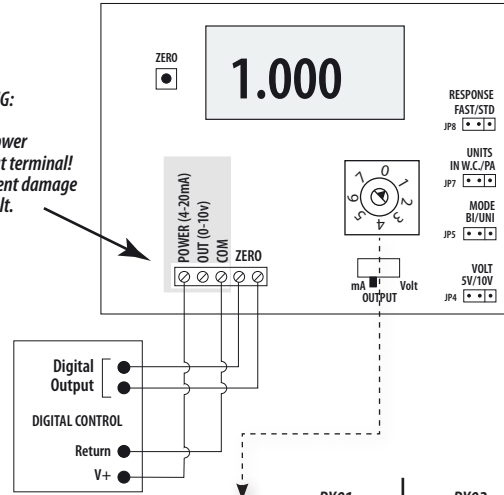
APPLICATION/WIRING DIAGRAMS

3-wire, 0-5V/0-10V



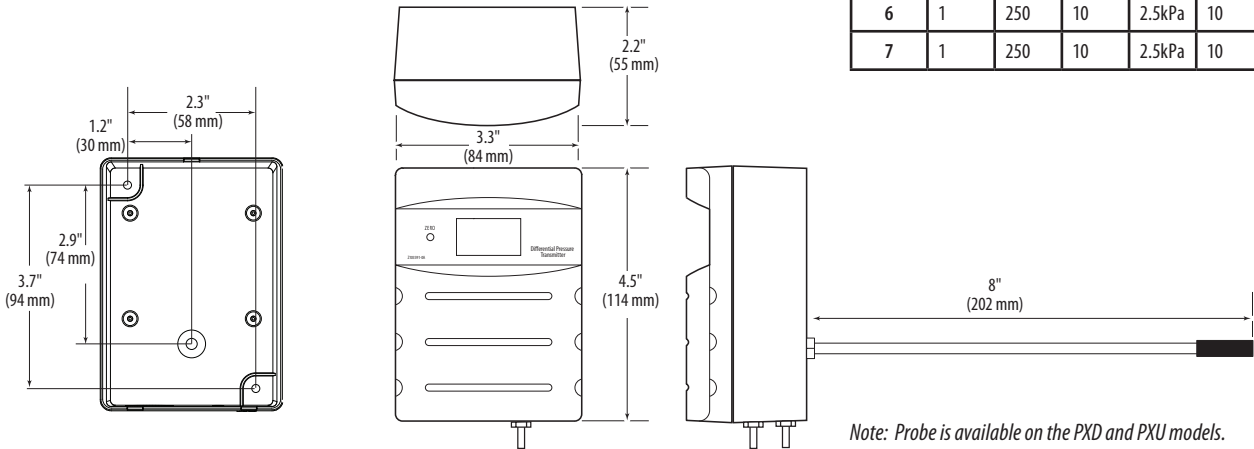
2-wire, 4-20mA

WARNING:
Do not apply power to output terminal! Permanent damage will result.



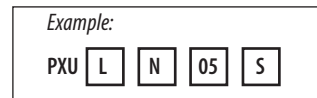
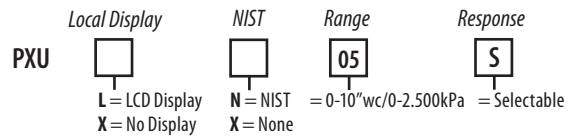
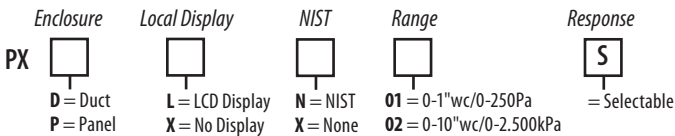
| Rotary Switch Position | PX01 | | PX02 | | PX05 | |
|------------------------|-------------|--------|-------------|--------|-------------|--------|
| | Inches W.C. | Pascal | Inches W.C. | Pascal | Inches W.C. | Pascal |
| 0 | 0.1 | 25 | 1 | 250 | 0.1 | 25 |
| 1 | 0.25 | 50 | 1 | 250 | 0.25 | 50 |
| 2 | 0.5 | 100 | 1 | 250 | 0.5 | 100 |
| 3 | 1 | 250 | 1 | 250 | 1 | 250 |
| 4 | 1 | 250 | 2.5 | 0.5kPa | 2.5 | 0.5kPa |
| 5 | 1 | 250 | 5 | 1kPa | 5 | 1kPa |
| 6 | 1 | 250 | 10 | 2.5kPa | 10 | 2.5kPa |
| 7 | 1 | 250 | 10 | 2.5kPa | 10 | 2.5kPa |

DIMENSIONAL DRAWINGS



Note: Probe is available on the PXD and PXU models. Probe is not factory-installed on the PXU models.

ORDERING INFORMATION



ACCESSORIES

Room and duct static pickup tubes (AA05, AA06, AA07), pitot tube kits (AA18, AA19, AA20), wall plate remote pickup (AA56)