



PX Series



SELECTABLE RANGES, LCD DISPLAY, & AUTOMATIC ZERO FOR EASY OPERATION

FEATURES

- Excellent tolerance to overpressure & vibration reduces field failures
- High accuracy digital sensor maintains calibration and reduces callbacks
- High reliability sensor technology for long-term maintenance-free operation
- Selectable ranges and scales reduce setup time & number of models to stock
- Microprocessor-based design allows for digitally profiled sensor increasing product accuracy and reliability
- Circuit protection avoids damage due to incorrect input wiring
- Monitors positive and negative pressure for application versatility
- Flexibility: standard and fast response modes
- LCD is ideal for set-up, troubleshooting and measuring
- Ceramic capacitive sensing element...highly stable linear output, reducing offset errors

DESCRIPTION

The digital PX Series differential pressure transducers utilize highly accurate, microprocessor profiled sensors and an advanced ceramic capacitive sensing element. 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 ranges. The PXU features seven field-selectable ranges, allowing just one model to cover applications for 0 to 0.1" to 0 to 10" W.C. The directional mode jumper is used to configure the transducer in uni-directional or bi-directional 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 reduce accidental zero adjustment during normal operation.

SPECIFICATIONS

GENERAL	
Media Compatibility	Dry air or inert gas
Input Power	Class 2; 12 to 30 Vdc, or 24 Vac nominal; 2-wire: 20 mA max.; 3-wire: 30 mA max.
Output	Field-selectable: 2-wire, loop-powered 4 to 20 mA (DC only, clipped & capped), or 3-wire 0-5 V/0-10 V *
Mode	Unidirectional or bidirectional, switch selectable
Display (option)	Signed 3-1/2 digit LCD, indicates pressure, overrange indicator
Zero Adjust	Pushbutton auto-zero & digital input (2-pos terminal block)
Fittings	Brass barb; 0.24" (6.1 mm) o.d.
Physical	UL 94 V-0 Fire Retardant ABS

PRESSURE RANGES	
PX: 01 Uni-directional Bi-directional	0.1/0.25/0.5/1.0" W.C. F.S., switch selectable $\pm 0.1/\pm 0.25/\pm 0.5/\pm 1.0$ " W.C. F.S., switch selectable 25 Pa/50 Pa/100 Pa/250 Pa, F.S., switch selectable ± 25 Pa/ ± 50 Pa/ ± 100 Pa/ ± 250 Pa, F.S., switch selectable
PX: 02 Uni-directional Bi-directional	1.0/2.5/5.0/10" W.C. F.S., switch selectable $\pm 1.0/\pm 2.5/\pm 5.0/\pm 10$ " W.C. F.S., switch selectable 0.25 kPa/0.5 kPa/1.0 kPa/2.5 kPa, F.S., switch selectable ± 0.25 kPa/ ± 0.5 kPa/ ± 1.0 kPa/ ± 2.5 kPa, F.S., switch selectable
PXU: 05 Uni-directional Bi-directional	0.1/0.25/0.5/1.0/2.5/5/10" W.C. 25 Pa/50 Pa/100 Pa/250 Pa/0.5 kPa/1 kPa/2.5 kPa F.S. switch selectable $\pm 0.1/0.25/0.5/1.0/2.5/5/10$ " W.C. 25 Pa/50 Pa/100 Pa/250 Pa/0.5 kPa/1 kPa/2.5 kPa F.S. switch selectable

SENSOR	
Response Time	Standard: T95 in 20 sec, Fast: T95 in 2 sec, switch selectable
Proof Pressure	3 psid (20.6 kPa)
Burst Pressure	5 psid (34.5 kPa)
Accuracy	$\pm 1\%$ F.S. of selected range (combined linearity & hysteresis)
Temperature Effect	1" (250 Pa) 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" (250 Pa) models: 2.0% max.; 10" (2.5 kPa) models: 0.5% max.
Operating Environment	0 to 60 °C (32 to 140 °F); 0 to 90% RH non-condensing

WARRANTY	
Limited Warranty	5 years

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).
* Minimum input voltage for 4 to 20 mA operation: 250 Ω loop = 13 Vdc; 500 Ω loop = 19 Vdc.

APPLICATIONS

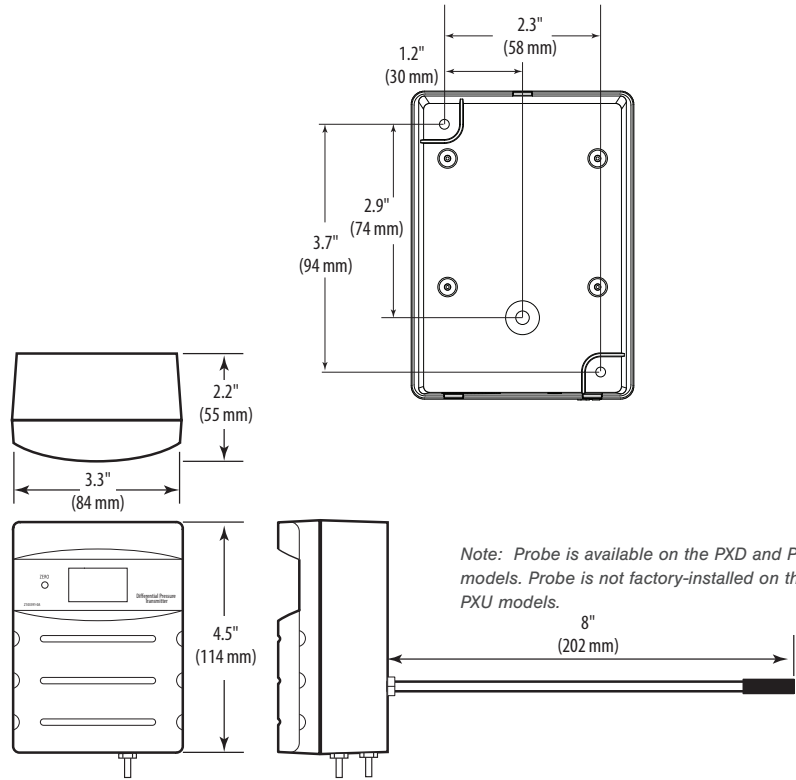
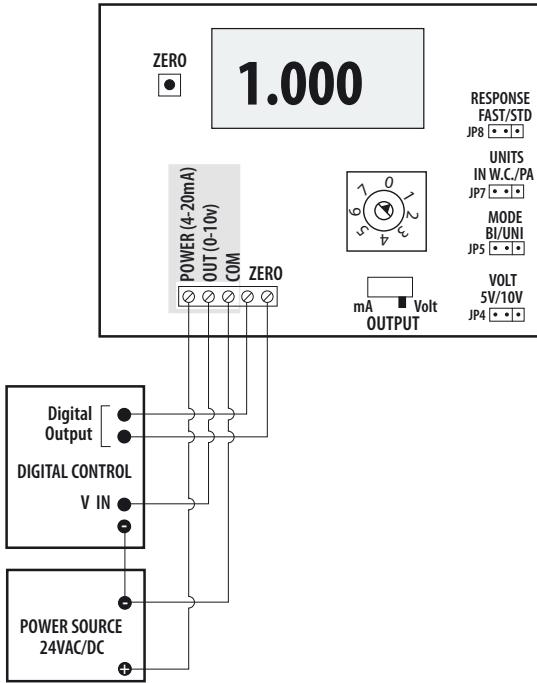
- Static pressure in building, duct or room applications
- Variable air volume system control
- Filter status monitoring
- Clean rooms, hospitals, fume hoods, computer rooms, and other very low differential pressure applications



WIRING DIAGRAMS

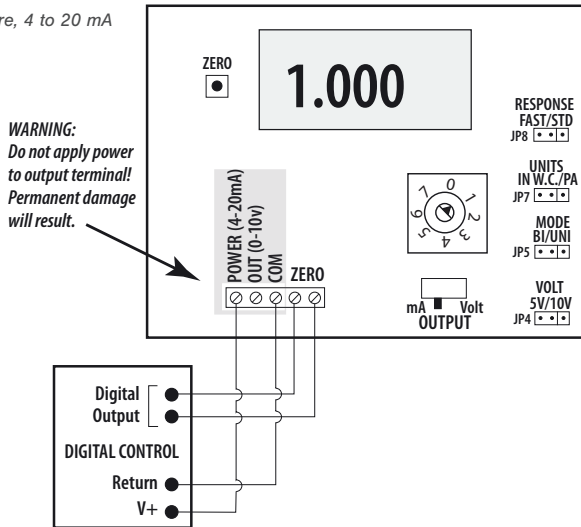
DIMENSIONAL DRAWINGS

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



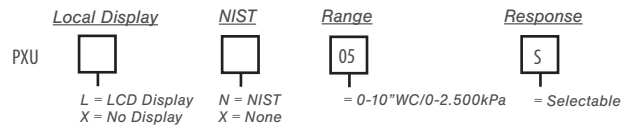
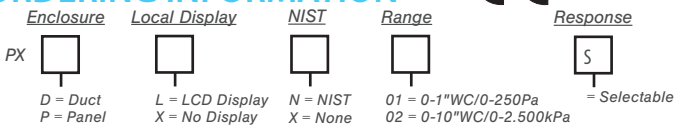
Note: Probe is available on the PXD and PXU models. Probe is not factory-installed on the PXU models.

2-wire, 4 to 20 mA



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

ORDERING INFORMATION



Example:



*The CE mark indicates RoHS2 compliance. Please refer to the CE Declaration of Conformity for additional details.

Example:



ACCESSORIES

- Room and duct static pickup tubes (AA05, AA06, AA07)
- Pitot tube kits (AA18, AA19, AA20)
- Wall plate remote pickup (AA56)
- Replacement covers (AA62, AA63)

