

Dry Media Differential Pressure Transducers

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



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 0-0.1" 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.

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

- 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
- 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 prevents damage due to incorrect wiring
- Monitors positive and negative pressure for application versatility
- Flexibility: standard and fast response modes
- LCD is ideal for setting up, troubleshooting, and measuring
- Ceramic capacitive sensing element...highly stable linear output, reducing offset errors

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: ±0.1/±0.25/±0.5/±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: ±1.0/±2.5/±5.0/±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/±0.500kPa/±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. 25 Pa/50 Pa/100 Pa/250 Pa/0.5 kPa/1 kPa/2.5 kPa F.S. switch selectable Bidirectional: ±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
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 (20.6 kPa)
Burst Pressure	5 psid (34.5 kPa)
Accuracy	±1% F.S. of selected range (combined linearity and 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.
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 noncondensing
Fittings	Brass barb; 0.24" (6.1 mm) o.d.
Physical	UL 94 V-0 Fire Retardant ABS

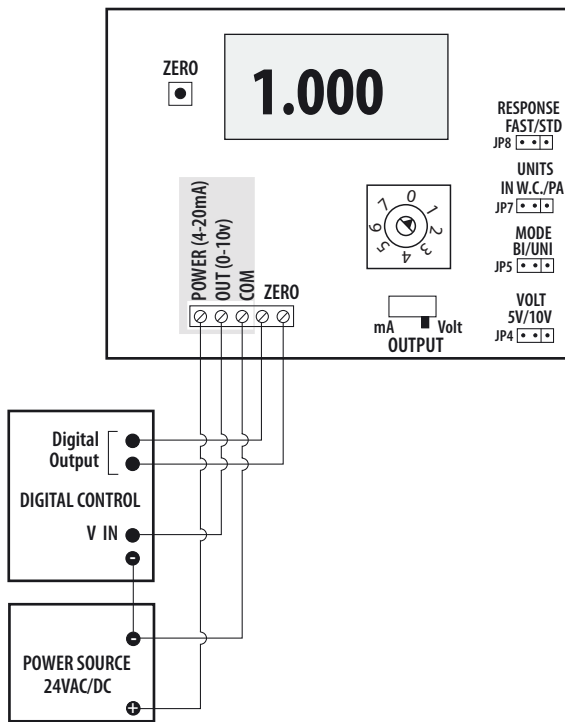
EMC Conformance: Low voltage directive 2006/95/EC; EMC directive 2004/108/EC.

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).

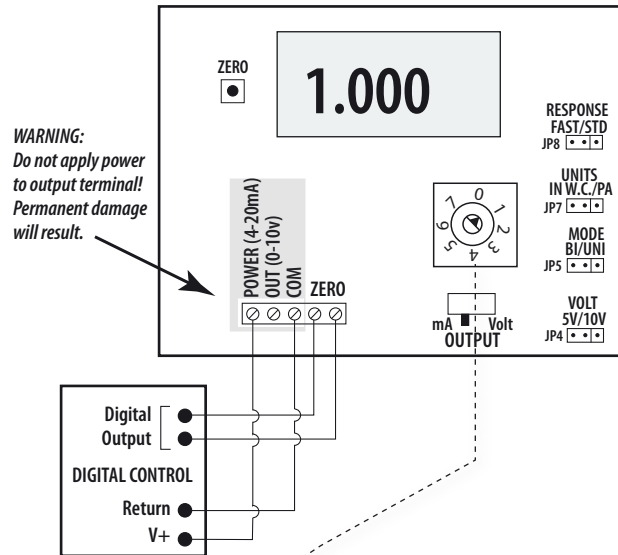
* Minimum input voltage for 4-20mA operation: 250 Ω loop = 13VDC; 500Ω loop = 19VDC

APPLICATION/WIRING DIAGRAMS

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

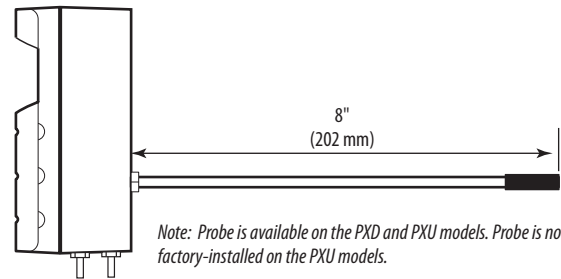
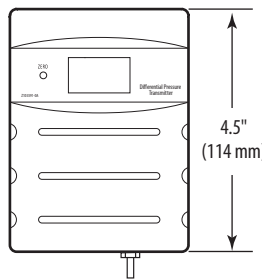
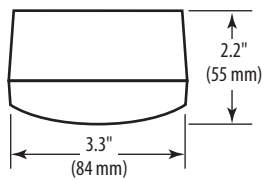
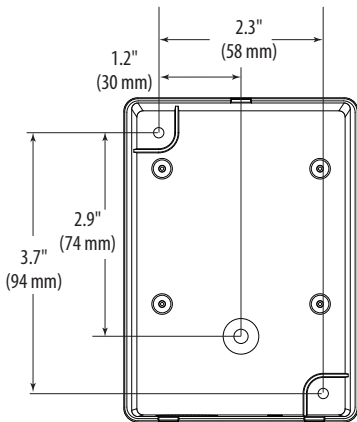


2-wire, 4-20mA



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



Enclosure	Local Display	NIST	Range	Response
PX <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D = Duct P = Panel	L = LCD Display X = No Display	N = NIST X = None	01 = 0-1"wc/0-250Pa 02 = 0-10"wc/0-2.500kPa	S = Selectable

Local Display	NIST	Range	Response
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L = LCD Display X = No Display	N = NIST X = None	05 = 0-10"wc/0-2.500kPa	S = Selectable

Example:

PX

Example:

PXU

ACCESSORIES

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

