

## PX3 SERIES

### Differential Pressure/Air Velocity Transducer



PX3

The PX3 transducer can measure either air pressure or velocity with the flip of a switch. The PX3 is available in three installation configurations: duct, panel or universal. Duct and panel models have two pressure and velocity options: 0-1" WC / 0-3,000 ft/min or 1-10" WC / 3,000-6,000 ft/min with four field-selectable sub-ranges. The universal model comes in one pressure/velocity range: 0-10" WC / 0-7,000 ft/min with seven field-selectable sub-ranges for pressure and eight for velocity. All variants are available with and without display. The PX3 has an IP65/NEMA 4 environmental rating and a 5-year limited warranty.

### SPECIFICATIONS

#### GENERAL

Media Compatibility	Dry air or inert gas
Input Power	Three-wire Volt mode: 24 Vac or 12-30 Vdc* Two-wire mA mode: 12-30 Vdc*
Output Power	Field-selectable: 2-wire, loop-powered 4-20 mA** (DC only, clipped and capped), 24 Vac/dc or 3-wire 0-5V/0-10V***

#### PRESSURE RANGES

01 Pressure Range	Pressure Mode: Unidirectional: 0.1/0.25/0.5/1.0 in. WC FS, switch selectable Bidirectional: $\pm 0.1/\pm 0.25/\pm 0.5/\pm 1.0$ in. WC FS, switch selectable Unidirectional: 25 Pa/50 Pa/100 Pa/250 Pa, FS, switch selectable Bidirectional: $\pm 25$ Pa/ $\pm 50$ Pa/ $\pm 100$ Pa/ $\pm 250$ Pa, FS, switch selectable Velocity Mode: 500/1,000/2,000/3,000 ft/min 2.5/5/10/15 m/s
02 Pressure Range	Pressure Mode: Unidirectional: 1.0/2.5/5.0/10 in. WC FS, switch selectable Bidirectional: $\pm 1.0/\pm 2.5/\pm 5.0/\pm 10$ in. WC FS, switch selectable Unidirectional: 0.250 kPa/0.500 kPa/1.000 kPa/2.500 kPa, FS, switch selectable Bidirectional: $\pm 0.250$ kPa/ $\pm 0.500$ kPa/ $\pm 1.000$ kPa/ $\pm 2.500$ kPa, FS, switch selectable Velocity Mode: 3,000/4,000/5,000/6,000 ft/min 15/20/25/30 m/s

### Reduce field failures

Excellent tolerance to overpressure & vibration reduces field failures

### High accuracy

High accuracy digital sensor with seven selectable pressure and eight velocity sub-ranges, maintains calibration and reduces callbacks

### Maintenance free

High reliability sensor technology for long-term, maintenance-free operation

### Reduce setup

Selectable ranges and scales reduce setup time and number of models to stock

### Water-resistant housing

IP65/NEMA 4 housing allows for mounting in wash-down locations

### Circuit protection

Circuit protection avoids damage due to incorrect input wiring

### APPLICATIONS

- Duct static pressure (Pressure mode)
- Building or room pressure (Pressure mode)
- Filter status (Pressure mode)
- Air flow measurement (Velocity mode)

05 Pressure Range	Pressure Mode: Unidirectional: 0.1/0.25/0.5/1.0/2.5/5/10 in. WC FS, switch selectable Bidirectional: $\pm 0.1/\pm 0.25/\pm 0.5/\pm 1.0/\pm 2.5/\pm 5/\pm 10$ in. WC FS, switch selectable Unidirectional: 25Pa/50Pa/100Pa/250Pa/0.5kPa/1kPa/2.5kPa FS, switch selectable Bidirectional: $\pm 25$ Pa/ $\pm 50$ Pa/ $\pm 100$ Pa/ $\pm 250$ Pa/ $\pm 0.5$ kPa/ $\pm 1$ kPa/ $\pm 2.5$ kPa FS, switch selectable Velocity Mode: 500/1000/2000/3000/4000/5000/6000/7000 ft/min 2.5/5/10/15/20/25/30/35 m/s
<b>SENSOR</b>	
Response Time	Standard: T95 in 20 sec, Fast: T95 in 2 sec, DIP switch selectable
Mode	Unidirectional or bidirectional, DIP switch selectable
Display (option)	Pressure mode: Signed 3-1/2 digit LCD, indicates pressure, overrange indicator Velocity mode: Signed 4-1/2 digit LCD, indicates velocity, overrange indicator
Proof Pressure	3 psid (20.6 kPa)
Burst Pressure	5 psid (34.5 kPa)
Pressure Mode Accuracy	$\pm 1\%$ FS (combined linearity and hysteresis)
Velocity Mode Accuracy	$\pm 90$ ft/min ( $\pm 0.45$ m/s) plus 5% of measured value****
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.



## SPECIFICATIONS (CONT.)

Zero Adjust	Pushbutton auto-zero and digital input (2-pos terminal block)
Operating Environment	0 to 60 °C (32 to 140 °F)
Altitude of Operation	0 to 3000 m
Pollution Deg.	2
Humidity Range	100% RH, non-condensing
Mounting Location	For indoor use only.
Fittings	Brass barb; 0.24" (6.1 mm) o.d.
Environmental Rating	IP65, NEMA 4
Flammability Rating	UL 94 5VA fire retardant ABS, plenum rated

## WARRANTY

Limited Warranty	5 years
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## AGENCY APPROVALS



EMC Conformance: EN 61000-6-3 and A1 Class B, EN 61000-6-1.

\* Class 2/II power source.

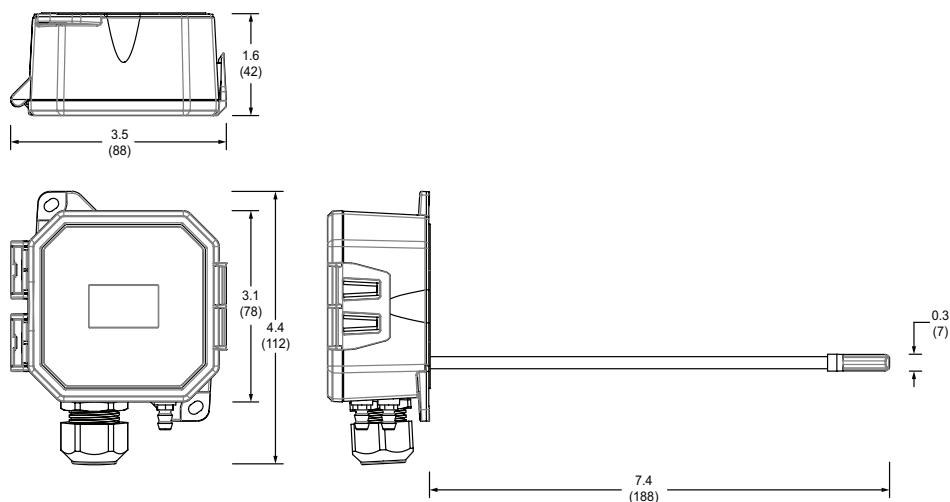
\*\* Minimum input voltage for 4 to 20 mA operation: 250 Ω loop = 12 Vdc; 500 Ω loop = 19 Vdc.

\*\*\* Minimum load resistance for Volt operation: 5 kΩ.

\*\*\*\* For measured values between 200 and 7000 ft/min (1 and 35 m/s).

## DIMENSIONAL DRAWING

in. (mm)

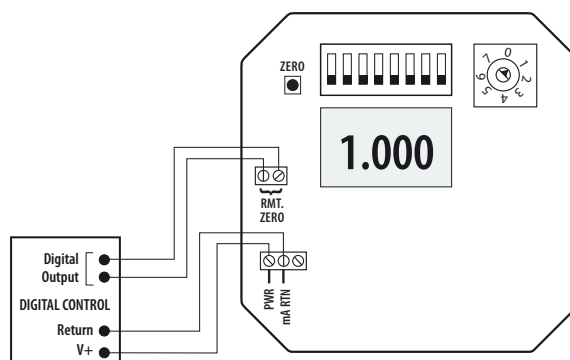


## ORDERING INFORMATION

Enclosure	Local Display	NIST Certificate	Range
PX3			
D = Duct P = Panel	L = LCD Display X = No Display	N = NIST X = None	01 = Pressure: 0 to 1 in. WC / 0 to 250 Pa Velocity: 0 to 3000 ft/min / 0 to 15 m/s 02 = Pressure: 0 to 10 in. WC / 0 to 2500 Pa Velocity: 0 to 6000 ft/min / 0 to 30 m/s
Example:			
PX3	D	L	X 01

## WIRING DIAGRAM

2-wire, 4-20 mA Current Loop Output



## WIRING DIAGRAM

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

