

# TRIPLE-RANGE INDUSTRIAL WET/WET DIFFERENTIAL PRESSURE TRANSDUCER

## PX83 Series

0 to 5 Vdc Output

0-25 to 0-5000 psid

0-2 to 0-345 bar

Differential Pressure

1 bar = 14.5 psi

1 kg/cm<sup>2</sup> = 14.22 psi

1 atmosphere = 14.7 psi = 29.93

inHg = 760.2 mmHg = 1.014 bar

Starts at  
**\$1300**



- ✓ Low Differential Pressure at High Line Pressure—Up to 5000 psi
- ✓ FM Intrinsically Safe
- ✓ All Stainless Steel Construction
- ✓ Hermetically Sealed for Harsh Environments
- ✓ High Overpressure Capability

OMEGA's PX83 Series is a heavy-duty, wet/wet, differential pressure transducer available in ranges from 25 to 5000 psid. The triple-range 0 to 5 V output is suitable for applications in which the pressure may vary from operation to operation and high accuracy and resolution are required. An extremely high overpressure capacity of 1500 psi or 150% (whichever is greater) makes the PX83 a very durable transducer. An FM Approved Intrinsically Safe rating is standard.

### SPECIFICATIONS

#### Triple Range

(Specifications Apply to All Ranges)

#### Electrical:

Excitation: 24 to 32 Vdc

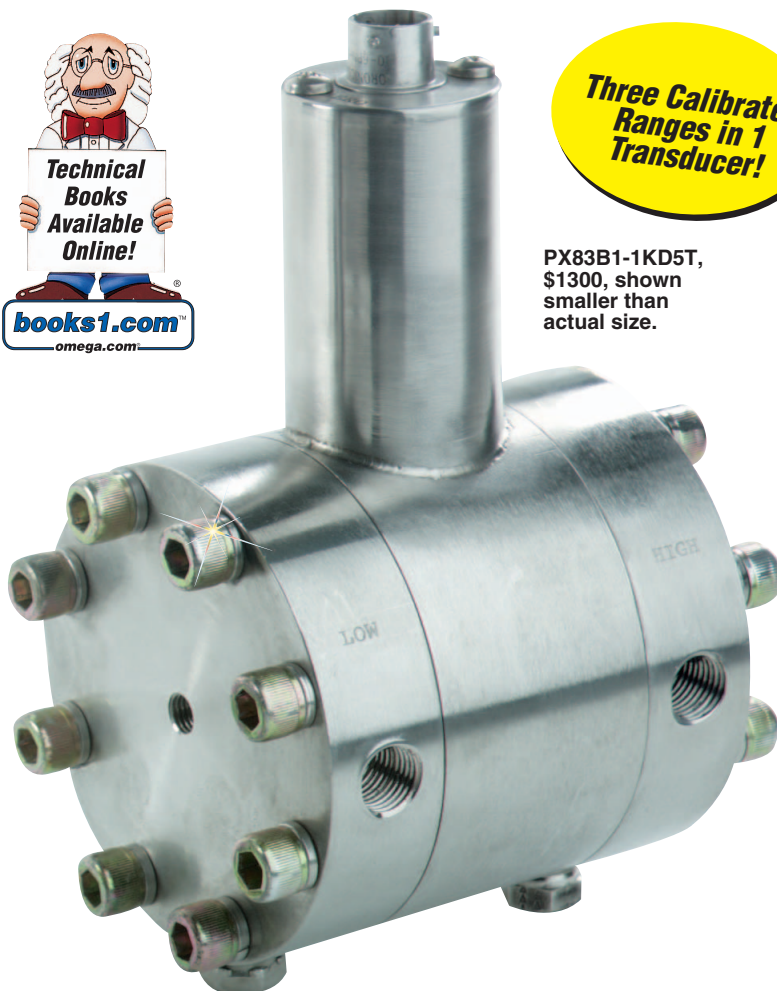
Output: 0 to 5 Vdc ±10% adj

Zero Balance: 0 V ±10% adj



Three Calibrated Ranges in 1 Transducer!

PX83B1-1KD5T, \$1300, shown smaller than actual size.



**BUILT TO ORDER**

### To Order (Specify Model Number)

Models with 0 to 5 V Triple-Range Output and Integral Connector

RANGE psid	RANGE bar	MODEL NO.	PRICE	COMPATIBLE METERS*
025/050/075	1.7/3.4/5.2	PX83D1-075D5T	\$1300	DP41-E, DP25B-E
050/100/150	3.4/6.9/10.3	PX83D1-150D5T	1300	DP41-E, DP25B-E
100/200/300	6.9/13.8/20.7	PX83D1-300D5T	1300	DP41-E, DP25B-E
200/400/600	13.8/27.6/41.4	PX83D1-600D5T	1300	DP41-E, DP25B-E
500/750/1K	34.5/51.7/68.9	PX83B1-1KD5T	1300	DP41-E, DP25B-E
750/1.5K/2K	51.7/103/138	PX83B1-2KD5T	1300	DP41-E, DP25B-E
1K/2K/3K	68.9/138/207	PX83B1-3KD5T	1300	DP41-E, DP25B-E
1.5K/3.5K/5K	103/241/345	PX83B1-5KD5T	1300	DP41-E, DP25B-E

Comes with 5-point calibration.

Metric ranges available – consult Engineering.

\* See section D for compatible meters.

**Ordering Examples:** PX83B1-600D5T, triple-range 200, 400, and 600 psid range differential transducer with 0 to 5 Vdc output, ¼-18 NPT pressure fittings and Bendix style electrical connector, \$1300. PT06F-10-6S, mating connector (not included), \$26.50.

### ACCESSORY

MODEL NO.	PRICE	DESCRIPTION
EE-2582	\$120	Reference Book: Mechanical Variables Measurement

# TRIPLE-RANGE DIFFERENTIAL PRESSURE TRANSDUCER

**Performance:**

- Accuracy:** 0.25%
- Linearity:** ±0.25% FSO
- Hysteresis:** ±0.10% FSO
- Repeatability:** ±0.1% FSO

**Agency Approvals:**

FM Intrinsically Safe  
IS/I.II.III/1/CDEFG standard

**Environmental:**

- Operating Temp Range:**  
-46 to 107°C (-50 to 225°F)
- Compensated Temp Range:**  
17 to 71°C (60 to 160°F)

**Thermal Effects:**

- Zero:** 0.009% FSO/°C  
(0.005% FSO/°F)
- Span:** 0.009% FSO/°C  
(0.005% FSO/°F)

**Line Pressure:** 1500 psi or 150% of rated pressure, whichever is greater

**Burst Pressure:** 6000 psi minimum

**Mechanical:**

**Wetted Parts:** 17-4 PH stainless steel

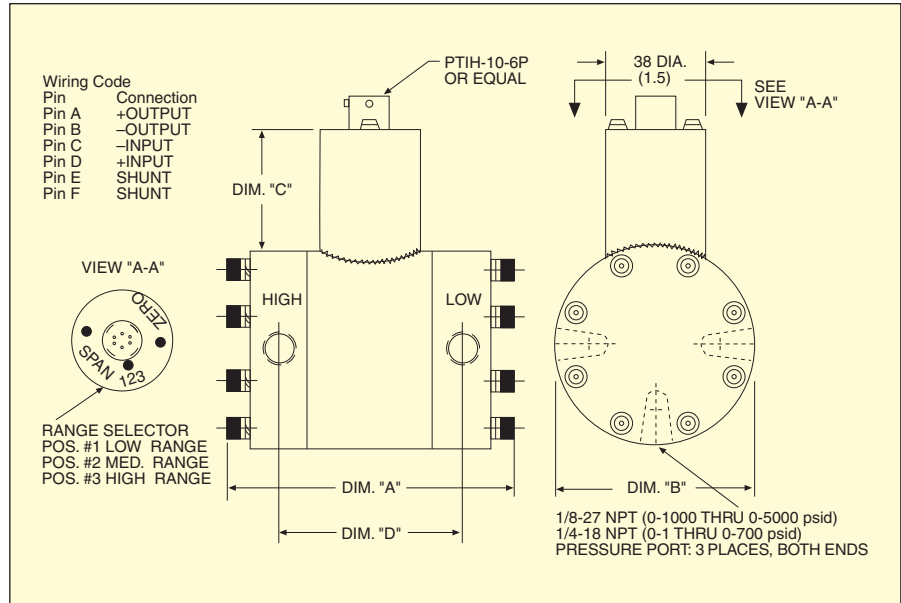
**Pressure Port:**

¼-18 NPTF for ranges 0-25 to 0-700 psi  
⅜-27 NPTF for ranges ≥ 0-1000 psi

**Electrical Connection:** Cable or PTIH-10-6P (or equal)

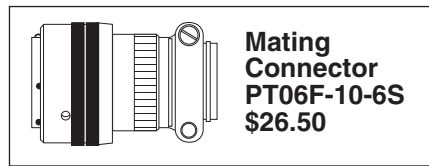
**Mating Connector:**

PT06F-10-6S (not included)



**Dimensions: mm (in)**

Capacity (highest)	A	B	C	D
25 to 700 psid	111 (4.38)	76 (3.0)	62 (2.44)	75 (2.94)
1000 to 5000 psid	76 (3.0)	51 (2.0)	76 (3.0)	51 (2.0)



**Custom Configurations**

SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psid) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
PX83	[ 1 ]	[ 2 ]	[ 3 ]	[ 4 ]	[ 5 ]	[ 6 ]
	B = ⅜-27 NPT female (ranges >700 psid) D = ¼-18 NPT female (ranges ≤700 psid)		075/050/025 150/100/050 300/200/100 600/400/200 1K/750/500 2K/1.5K/750 3K/2K/1K 5K/3.5K/1.5K	D = Differential pressure	5T = 0 to 5 Vdc triple range	<b>High Line Pressure</b> LP2K = 2000 psi LP3K = 3000 psi LP5K = 5000 psi
	1 = PTIH-10-6P connector (or equal, no charge). Mating connector (not included) order <b>PT06F-10-6S \$26.50</b>		<b>\$1300</b>			

**To order a custom configuration:**

1. Select a pressure port
2. Select electrical connection
3. Select a pressure range
4. Select pressure units
5. Select output
6. Select agency approvals

*Metric ranges available – consult Engineering.*

**Ordering Example:** PX83B1-600D5T, triple-range 200, 400 and 600 psid range differential transducer with 5 Vdc output, ¼-18 NPT pressure fittings and Bendix style electrical connector, **\$1300**. PT06F-10-6S, mating connector (not included), **\$26.50**.

# omega.co.uk<sup>®</sup>

Your One-Stop Source for Process Measurement and Control!

Freephone 0800 488 488 | International +44(0) 161 777 6622 | Fax +44(0) 161 777 6622 | Sales@omega.co.uk

[www.omega.co.uk](http://www.omega.co.uk)



#### UNITED STATES

[www.omega.com](http://www.omega.com)

1-800-TC-OMEGA  
Stamford, CT.

#### UNITED KINGDOM

[www.omega.co.uk](http://www.omega.co.uk)

Manchester, England  
0800-488-488  
+44-(0)161-777-6611

#### CANADA

[www.omega.ca](http://www.omega.ca)

Laval(Quebec)  
1-800-TC-OMEGA

#### FRANCE

[www.omega.fr](http://www.omega.fr)

0800-466-342

#### GERMANY

[www.omega.de](http://www.omega.de)

Deckenfronn, Germany  
0800-8266342

#### BENELUX

[www.omega.nl](http://www.omega.nl)

0800-099-33-44



## More than 100,000 Products Available!

### • Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders, Relative Humidity Measurement Instruments, PT100 Probes, PT100 Elements, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples, Thermowells and Head and Well Assemblies, Transmitters, Thermocouple Wire, RTD Probes

### • Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

### • pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

### • Data Acquisition

Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485, Ethernet and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

### • Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Pressure Transmitters, Strain Gauges, Torque Transducers, Valves

### • Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters