

# ULTRA HIGH-PRESSURE TRANSDUCER WITH HIGH OPERATING TEMPERATURE RANGE

## PX91 Series

mV/V Output

0-5000 to 0-200,000 psi

0-350 to 0-14,000 bar

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  
**\$845**



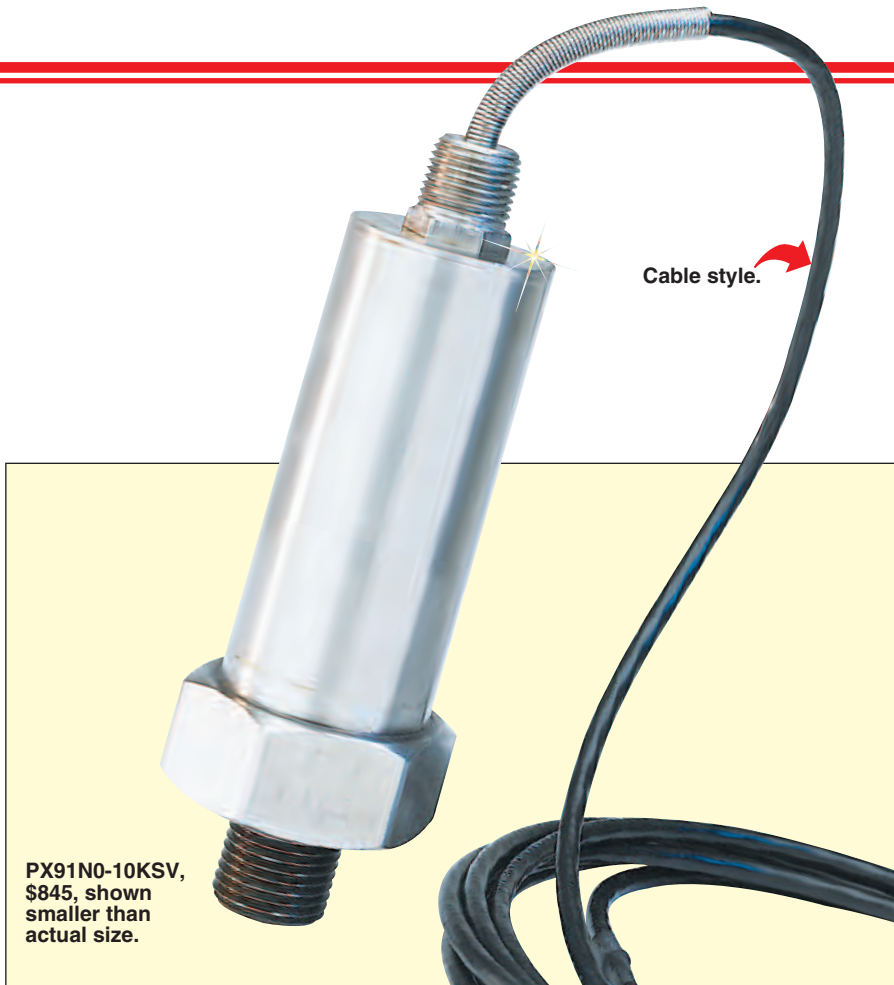
- ✓ FM Approved Intrinsicly Safe
- ✓ All Stainless Steel Construction
- ✓ High Operating Temperature, Up to 204°C (400°F)
- ✓ Hermetically Sealed for Harsh Environments

OMEGA's PX91 is a rugged, ultra-high pressure transducer series. Hermetically sealed, with all stainless steel construction, it is designed for use in test chambers. The PX91 is available in sealed gage pressures up to 200,000 psi. It has a high operating temperature up to 204°C (400°F). The pressure connection is via a high-pressure ferrule connection. An FM Approved Intrinsicly Safe rating is standard.

Recommended Reference Book:  
Principles and Practice of  
Automatic Process Control,  
**CM-4225, \$185.**



See Section Y for Additional Books.



PX91N0-10KSV,  
\$845, shown  
smaller than  
actual size.

**MOST POPULAR MODELS HIGHLIGHTED!**

### To Order (Specify Model Number)

RANGE		MODEL NO.	PRICE	COMPATIBLE METERS**
<b>CABLE STYLE, SEALED GAGE PRESSURE</b>				
0 to 5000 psi	0 to 345 bar	<b>PX91N0-5KSV</b>	<b>\$845</b>	DP41-S, DP25B-S
0 to 10,000 psi	0 to 689 bar	<b>PX91N0-10KSV</b>	<b>845</b>	DP41-S, DP25B-S
0 to 15,000 psi	0 to 1034 bar	<b>PX91N0-15KSV</b>	<b>845</b>	DP41-S, DP25B-S*
0 to 20,000 psi	0 to 1379 bar	<b>PX91N0-20KSV</b>	<b>845</b>	DP41-S, DP25B-S*
0 to 30,000 psi	0 to 2068 bar	<b>PX91N0-30KSV</b>	<b>845</b>	DP41-S, DP25B-S*
0 to 35,000 psi	0 to 2413 bar	<b>PX91N0-35KSV</b>	<b>845</b>	DP41-S, DP25B-S*
0 to 50,000 psi	0 to 3447 bar	<b>PX91N0-50KSV</b>	<b>845</b>	DP41-S, DP25B-S*
0 to 60,000 psi	0 to 4137 bar	<b>PX91N0-60KSV</b>	<b>845</b>	DP41-S, DP25B-S*
0 to 80,000 psi	0 to 5516 bar	<b>PX91P0-80KSV</b>	<b>1250</b>	DP41-S, DP25B-S*
0 to 100,000 psi	0 to 6895 bar	<b>PX91P0-100KSV</b>	<b>1250</b>	DP41-S, DP25B-S*
0 to 120,000 psi	0 to 8274 bar	<b>PX91P0-120KSV</b>	<b>1450</b>	DP41-S, DP25B-S*
0 to 150,000 psi	0 to 10,342 bar	<b>PX91P0-150KSV</b>	<b>1600</b>	DP41-S, DP25B-S*
0 to 200,000 psi	0 to 13,790 bar	<b>PX91P0-200KSV</b>	<b>1800</b>	DP41-S, DP25B-S*

Comes complete with 5-point NIST traceable calibration.

Metric ranges available – consult Engineering.

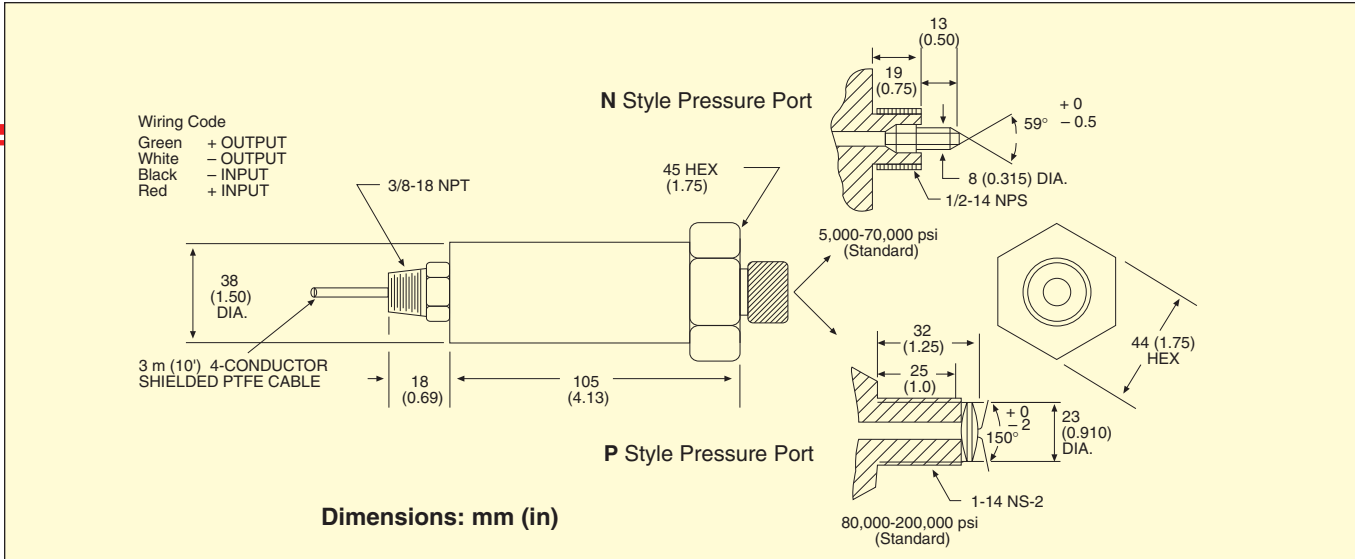
\* 4-digit meter. \*\* See section D for compatible meters.

**Ordering Examples:** PX91P0-100KSV, 100,000 psi sealed gage model with 1-14 NS fitting and 3 m (10') cable, \$1250.

PX91N0-15KSV, 15,000 psi sealed gage model with 1/2-14 NPSM fitting and 3 m (10') cable, \$845.

# HIGH-TEMPERATURE/HIGH-PRESSURE TRANSDUCER

SPECIALTY  
PRESSURE TRANSDUCERS  
**B**



## SPECIFICATIONS

### mV/V Output

**Excitation:** 10 Vac/Vdc (15V max)

**Output:** 1 mV/V ±0.5%

**Bridge Resistance:** 350 Ω nominal

**Zero Balance:** ±2.5%

### Agency Approvals:

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

### Linearity:

≤70K psi: ±0.35% FSO

>70K psi: ±0.50% FSO

**Hysteresis:** ±0.10% FSO

**Repeatability:** ±0.10% FSO

### Operating Temp Range:

-56 to 204°C (-70 to 400°F)

### Compensated Temp Range:

21 to 218°C (70 to 425°F)

### Thermal Effects:

**Span:** 0.01% rdg/°F

**Zero:** 0.01% FSO/°F

### Proof Pressure:

≤70K psi: 120% of rated pressure

>70K psi: 110% of rated pressure

### Burst Pressure:

≤70K psi: 150% of rated pressure

>70K psi: 120% of rated pressure

### Wetted Parts:

≤70K psi: 17-4 PH stainless steel

>70K psi: 455 stainless steel

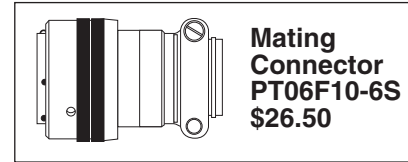
### Pressure Port:

≤70K psi: 1/2-14 NPSM  
(use with 0.315" dia. 59° ferrule)

>70K psi: 1-14 NS-2  
(use with 0.910" dia 150° ferrule)

### Electrical Connection:

3 m (10') 4-conductor shielded cable



## CUSTOM CONFIGURATIONS

PX91 SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (psi) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
<b>Ranges ≤70,000 psi</b> N = 1/2-14 NPSM (use with 0.315" dia. 59° ferrule) <b>Ranges &gt;70,000 psi</b> P = 1-14 NS-2 (use with 0.910" dia. 150° ferrule)			5K	S = Sealed gage	V = mV/V 5T = 0 to 5 Vdc I = 4 to 20 mA	
		10K				
			15K	mV/V    5 V    4 to 20 mA	\$845    \$860    \$860	
			20K			
			30K			
			35K			
			50K			
			60K			
			80K			
			100K			
			120K			
			150K			
			200K			
				\$1250	\$158	\$1500
				\$1450	\$1580	\$1580
				\$1600	\$1800	\$1800
				\$1800	\$1900	\$1900
<b>Amplified Models Only</b> 0 = 3 m (10') PTFE cable 1 = PTIH-10-6P connector (or equal, no charge). Mating connector (sold separately), order <b>PT06F10-6S \$26.50</b> 5 = Lightning-protected amplifier housing (no charge)						
<b>To order a custom configuration:</b> 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.

To order extra cable on cable style models, add suffix “-(length in feet) FT” and \$4.50/ft beyond the standard 3 m (10') length.

**Ordering Examples:** PX91P5-100KSI, 100,000 psi sealed gage pressure range model with 4 to 20 mA output, 1-14 NS-2 fitting and lightning-protected amplifier housing, \$1500.

PX91P1-80KS5T, 80,000 psi sealed gage pressure range model with 0 to 5 Vdc output, 1-14 NS-2 fitting and integral connector, \$1500.

PT06F10-6S, mating connector (sold separately), \$26.50.

PX91N0-50KSV-25FT, 50,000 psi sealed gage pressure range model with mV/V output, 1/2-14 NPSM fitting and 7.6 m (25') cable, \$845 + 67.50 = \$912.50.

PX91P0-100KSI, 100,000 psi sealed gage pressure range model with 4 to 20 mA output, 1-14 NS fitting and twist-lock connector, \$1500.

PT06F10-6S, mating connector (sold separately), \$26.50.



#### UNITED STATES

[www.omega.com](http://www.omega.com)  
1-800-TC-OMEGA  
Stamford, CT.

#### CANADA

[www.omega.ca](http://www.omega.ca)  
Laval(Quebec)  
1-800-TC-OMEGA

#### GERMANY

[www.omega.de](http://www.omega.de)  
Deckenpfronn, Germany  
0800-8266342

#### UNITED KINGDOM

[www.omega.co.uk](http://www.omega.co.uk)  
Manchester, England  
0800-488-488

#### FRANCE

[www.omega.fr](http://www.omega.fr)  
Guyancourt, France  
088-466-342

#### CZECH REPUBLIC

[www.omegaeng.cz](http://www.omegaeng.cz)  
Karviná, Czech Republic  
596-311-899

#### BENELUX

[www.omega.nl](http://www.omega.nl)  
Amstelveen, NL  
0800-099-33-44



## More than 100,000 Products Available!

### • Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Glass Bulb Thermometers, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders Relative Humidity Measurement Instruments, RTD Probes, Elements and Assemblies, 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, Wire

### • 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

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 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, Strain Gages, 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