

# ULTRA HIGH PRESSURE TRANSMITTER

## LIGHTNING PROTECTED HEAD STYLE



PX91  
**\$860**  
 Model Shown

**PX91 Series**  
**4-20 mA Output**  
**0-5,000 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 in-Hg = 760.2 mm-Hg = 1.014 bar

- ✓ Ranges up to 200,000 psi
- ✓ FM Approved Intrinsically Safe
- ✓ All Stainless Steel Case
- ✓ High Operating Temperature 121°C (250°F)
- ✓ Lightning Protected Amplifier Housing

OMEGA's PX91 Amplified Output Series is a rugged, high temperature/ultra high pressure transducer. It is hermetically sealed, has all stainless steel construction and is designed for the harshest environments encountered in very high pressure/high temperature test chambers. The PX91 is available in sealed gage pressures from 5,000 psi to 200,000 psi. Electrical connection is either a sealed Bendix connector or lightning protected amplifier housing. Pressure connection is via a high pressure ferrule connection. FM approved intrinsically safe is standard.



**Model PX91N5-50KSI**  
 Shown Smaller Than Actual Size

**SPECIFICATIONS:**  
**4-20 mA OUTPUT**  
**Electrical:**  
 Excitation: 10-40 Vdc  
 Output: 4-20 mA ±10% adj.

**Zero Balance:** 4 mA +10% -2% adj  
**Agency Approvals:**  
 FM Intrinsically Safe IS/I.II.III/1/CDEFG Standard  
**Linearity:** ±0.35% FSO <75K psi  
 ±0.50% FSO ≥75K psi  
**Hysteresis:** ±0.10% FSO  
**Repeatability:** ±0.10% FSO

<b>To Order (Specify Model Number)</b>			
RANGE (psi)	MODEL NO.	PRICE	COMPATIBLE METERS
<b>Protected Head Style, Sealed Gage Pressure, 4-20mA Output</b>			
0 to 5,000	PX91N5-5KSI	\$860	DP41-E, DP25-E, DP24-E
0 to 10,000	PX91N5-10KSI	860	DP41-E, DP25-E, DP24-E
0 to 15,000	PX91N5-15KSI	860	DP41-E, DP25-E*, DP24-E*
0 to 20,000	PX91N5-20KSI	860	DP41-E, DP25-E*, DP24-E*
0 to 30,000	PX91N5-30KSI	860	DP41-E, DP25-E*, DP24-E*
0 to 35,000	PX91N5-35KSI	860	DP41-E, DP25-E*, DP24-E*
0 to 50,000	PX91N5-50KSI	860	DP41-E, DP25-E*, DP24-E*
0 to 60,000	PX91N5-60KSI	860	DP41-E, DP25-E*, DP24-E*
0 to 80,000	PX91P5-80KSI	1500	DP41-E, DP25-E*, DP24-E*
0 to 100,000	PX91P5-100KSI	1500	DP41-E, DP25-E*, DP24-E*
0 to 120,000	PX91P5-120KSI	1580	DP41-E, DP25-E*, DP24-E*
0 to 150,000	PX91P5-150KSI	1800	DP41-E, DP25-E*, DP24-E*
0 to 200,000	PX91P5-200KSI	1900	DP41-E, DP25-E*, DP24-E*

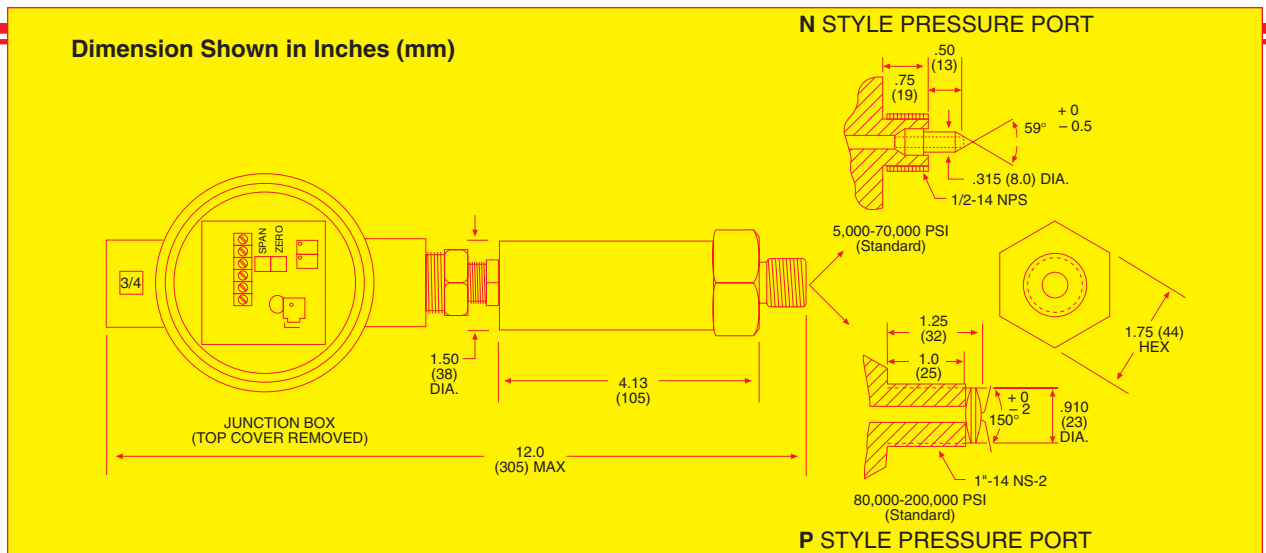
\* 4 Digit Meter

Metric Ranges Available - Consult Engineering

**Ordering Examples:**

- 1.) **PX91N5-60KSI** is a 60,000 psi sealed gage model with 4-20 mA output, a 1/2-14 NPS fitting and lightning protected amplifier housing, \$860.
- 2.) **PX91P5-80KSI** is an 80,000 psi sealed gage model with 4-20 mA output, a 1-14 NS fitting and lightning protected amplifier housing, \$1500.

SPECIALTY PRESSURE TRANSDUCERS **B**



**Operational Temp Range:**  
-46 to +121°C (-50 to +250°F)

**Compensated Temp Range:**  
+17 to +71°C (+60 to +160°F)

**Thermal Effects:**  
**Span:** 0.005% Rdg/°F  
**Zero:** 0.005% FSO/°F

**Proof Pressure:**  
5K to 50K psi: 120% of rated pressure  
60K to 200K psi: 110% of rated pressure

**Burst Pressure:**  
5K to 75K psi: 150% of rated pressure  
80K to 200K psi: 120% of rated pressure

**Wetted Parts:**  
5 to 75K: 17-4 PH Stainless Steel  
≥80K: 455 Stainless Steel

**Pressure Port:** 5K to 70K psi:  
½-14 NPS (use .315 dia. 59° ferrule)  
> 70K psi: 1-14 NS-2 (use .910 dia. 150° ferrule)

**Electrical Connection:**  
Terminal Strip inside Lightning

Protected Amplifier Housing  
**Optional:**  
Bendix PT1H-10-6P or equal  
**Mating Connector:**  
PT06F-10-6S (not included)

**CUSTOM CONFIGURATIONS:**

SERIES	PRESSURE PORT [ 1 ]	ELECTRICAL CONNECTION [ 2 ]	RANGE (PSI) [ 3 ]	UNITS [ 4 ]	OUTPUT [ 5 ]	OPTIONS [ 6 ]
PX91			5K 10K 15K 20K 30K 35K 50K 60K 80K 100K 120K 150K 200K	S = Sealed Gage  5 V 4-20mA \$860 \$860	V = mV/V 5T = 0-5Vdc I = 4-20 mA	• See section B for additional options.
<p><b>Ranges ≤ 70,000 psi</b> N = ½-14 NPS use with .315" dia 59° ferrule</p> <p><b>Ranges &gt; 70,000 psi</b> P = 1-14 NS-2 use with .910" dia. 150° ferrule</p>						
<p>0 = 10 ft (3m) Teflon Cable \$4.50/ft over 10 ft (3m)</p> <p>1 = PT1H-10-6P Connector or Equal (no charge). Mating Connector (not included) order <b>PT06F-10-6S \$26.50</b></p> <p>5 = Lightning Protected Amplifier Housing (no charge)</p>						
<p>Amplified Models Only</p>						
<p>Metric Ranges Available - Consult Engineering</p>						

**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

To order extra cable on Cable Style models, add suffix "-(length in feet)FT" and \$4.50/ft over the standard 10 ft (3m) length.

**Ordering Examples:**

- 1.) **PX91P5-100KSI** is a 100,000 psi Sealed Gage Pressure range model with, 4-20 mA output, 1-14 NS-2 fitting and a lightning protected amplifier housing, \$1500.
- 2.) **PX91P1-80KS5T** is an 80,000 psi Sealed Gage Pressure range model with 0 to 5 Vdc output, a 1-14 NS-2 fitting and an integral connector, \$1500. Mating Connector (not included) **PT06F-10-6S, \$26.50.**
- 3.) **PX91N0-50KSV-25FT** is a 50,000 psi Sealed Gage Pressure range model with mV/V output, ½-14 NPS fitting and 25ft (7.6m) cable, \$845+67.50 = **\$912.50.**
- 4.) **PX91P0-100KSI** is a 100,000 psi Sealed Gage Pressure range model with 4-20 mA output, 1-14 NS fitting and integral Bendix Connector \$1500. Mating Connector (not included) **PT06F-10-6S, \$26.50.**

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