

ULTRA-HIGH-PRESSURE TRANSMITTER LIGHTNING-PROTECTED HEAD STYLE

4 to 20 mA Output
0-5000 to 0-200,000 psi
0-350 to 0-14,000 bar

1 bar = 14.5 psi
1 kg/cm² = 14.22 psi
1 atmosphere = 14.7 psi = 29.93 inHg = 760.2 mmHg = 1.014 bar

PX91 Series



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

OMEGA's PX91 amplified output series comprises rugged, high-temperature/ultra high-pressure transducers. They are hermetically sealed, with all stainless steel construction, and are designed for the harshest test chamber environments. The PX91 is available in sealed gage pressures from 5000 psi to 200,000 psi. The electrical connection is a lightning-protected amplifier housing. The pressure connection is via a high-pressure ferrule.



PX91N5-50KSI shown much smaller than actual size.

To Order Visit omega.com/px91-ic for Pricing and Details

RANGE	MODEL NO.	COMPATIBLE METERS**
PROTECTED HEAD STYLE, SEALED GAGE PRESSURE, 4 to 20 mA OUTPUT		
0 to 5000 psi	0 to 345 bar	PX91N5-5KSI DP41-E, DP25B-E, DP24-E
0 to 10,000 psi	0 to 689 bar	PX91N5-10KSI DP41-E, DP25B-E, DP24-E
0 to 15,000 psi	0 to 1034 bar	PX91N5-15KSI DP41-E, DP25B-E*, DP24-E*
0 to 20,000 psi	0 to 1379 bar	PX91N5-20KSI DP41-E, DP25B-E*, DP24-E*
0 to 30,000 psi	0 to 2068 bar	PX91N5-30KSI DP41-E, DP25B-E*, DP24-E*
0 to 35,000 psi	0 to 2413 bar	PX91N5-35KSI DP41-E, DP25B-E*, DP24-E*
0 to 50,000 psi	0 to 3447 bar	PX91N5-50KSI DP41-E, DP25B-E*, DP24-E*
0 to 60,000 psi	0 to 4137 bar	PX91N5-60KSI DP41-E, DP25B-E*, DP24-E*
0 to 80,000 psi	0 to 5516 bar	PX91P5-80KSI DP41-E, DP25B-E*, DP24-E*
0 to 100,000 psi	0 to 6895 bar	PX91P5-100KSI DP41-E, DP25B-E*, DP24-E*
0 to 120,000 psi	0 to 8274 bar	PX91P5-120KSI DP41-E, DP25B-E*, DP24-E*
0 to 150,000 psi	0 to 10,342 bar	PX91P5-150KSI DP41-E, DP25B-E*, DP24-E*
0 to 200,000 psi	0 to 13,790 bar	PX91P5-200KSI DP41-E, DP25B-E*, DP24-E*

Comes complete with 5-point NIST traceable calibration and operator's manual.
Metric ranges available – consult Engineering.

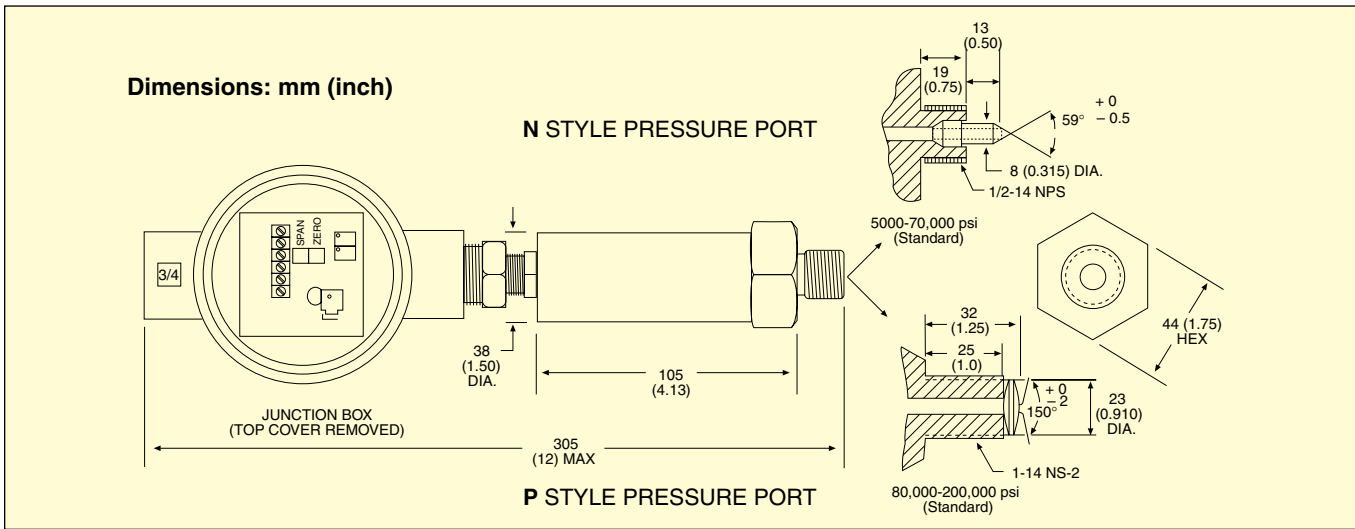
* 4-digit meter.

** See omega.com for compatible meters.

Ordering Examples: **PX91N5-60KSI**, 60,000 psi sealed gage model with 4 to 20 mA output, 1/2-14 NPSM fitting and lightning-protected amplifier housing.

PX91P5-80KSI, 80,000 psi sealed gage model with 4 to 20 mA output, 1-14 NS fitting and lightning-protected amplifier housing.

ULTRA-HIGH-PRESSURE TRANSMITTER



SPECIFICATIONS

4 to 20 mA Output

ELECTRICAL

Excitation: 12 to 40 Vdc

Output: 4 to 20 mA $\pm 10\%$ adj

Zero Balance: 4 mA $+10\%$ -2% adj

Linearity:

$\leq 70K$ psi: $\pm 0.35\%$ FSO

$> 70K$ psi: $\pm 0.50\%$ FSO

Hysteresis: $\pm 0.10\%$ FSO

Repeatability: $\pm 0.10\%$ FSO

Operating 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/ $^\circ\text{F}$

Zero: 0.005% FSO/ $^\circ\text{F}$

Proof Pressure:

$\leq 70K$ psi: 120% of rated pressure

$> 70K$ psi: 110% of rated pressure

Burst Pressure:

$\leq 70K$ psi: 150% of rated pressure

$> 70K$ psi: 120% of rated pressure

Wetted Parts:

$\leq 70K$ psi: $17-4$ PH stainless steel

$> 70K$ psi: 455 stainless steel

Pressure Port:

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

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

Electrical Connection: Terminal strip inside lightning-protected amplifier housing

Optional: PTIH-10-6P or equal

Mating Connector: PT06F10-6S (sold separately)

CUSTOM CONFIGURATIONS

PX91 SERIES	PRESSURE PORT [1]	ELECTRICAL CONNECTION [2]	RANGE (psi) [3]	UNITS [4]	OUTPUT [5]	OPTIONS [6]
Ranges $\leq 70,000$ psi N = $1/2-14$ NPSM (use with 0.315 " dia 59° ferrule) Ranges $> 70,000$ psi P = $1-14$ NS-2 (use with 0.910 " dia. 150° ferrule)			5K	S = Sealed gage	I = 4 to 20 mA	See omega.com for additional options.
		10K				
			15K			
			20K			
			30K			
			35K			
			50K			
			60K			
			80K			
			100K			
			120K			
			150K			
			200K			
Amplified Models Only	0 = 3 m (10') PTFE cable + add cost/ft over 3 m (10') 1 = PTIH-10-6P connector (or equal, no charge) Mating connector (sold separately), order PT06F10-6S 5 = Lightning-protected amplifier housing (no charge)					
	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					

Metric ranges available – consult Engineering.

To order extra cable on cable style models, add suffix “-(length in feet) FT” for additional cost per foot 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.

PX91P1-100KSI, 100,000 psi sealed gage pressure range model with 4 to 20 mA output, 1-14 NS fitting and integral twist-lock connector.

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