

PTX 7200 Series

Industrial Pressure Transmitters



- ±0.2% FS accuracy to ±0.1% FS available
- NACE compatible Hastelloy C276 and 316L SS
- RFI/EMI protected to CE Heavy Industrial Standard
- Intrinsically safe versions available
- Exceptionally rugged and lightweight
 - Operating temperature range -40° to 210°F

The PTX 7200 Series combines modular design with the latest advances in ASIC technology and surface mount electronics. This provides a lightweight, highly reliable and cost-effective solution for a range of industrial pressure measurement applications including factory automation, test cell monitoring, equipment monitoring and control, gas turbines, and any other application where high-reliability is important. The rugged design with exceptional RFI/EMI immunity gives the PTX 7200 the lowest "cost-of-ownership" in the industry.

At the heart of the transmitter is Druck's own piezoresistive silicon technology, extensively proven in aerospace, sub-sea, oil-field and many other applications where the highest levels of performance and long-term reliability are required.

The sensor features a Hastelloy C276 isolation diaphragm and is enclosed in an electron beam welded 316L stainless steel body. This rugged construction ensures full compatibility with a wide range of pressure media and operating conditions.

On-site trimming of the transmitter output is accomplished via non-interacting potentiometers located beneath the electrical connector. The PTX 7200 Series offers excellent RFI/EMI immunity, meeting the highest level of CE marking requirements for Heavy Industrial use.

Industrial Pressure Transmitters

STANDARD SPECIFICATION

Pressure Measurement

Operating Pressure Ranges

Any pressure unit and (zero-based) span available between 1 and 1000 psi gauge; between 1001 and 10,000 psi sealed gauge and between 5 and 10,000 psi absolute Compound ranges -15 to 15, -15 to 30, -15 to 100,

-5 to 5 psi g

Negative ranges refer to PTX 500/600 Alternate pressure units may be specified on order.

Proof Pressure

6X FS for ranges 725 psi and below 4X FS for ranges 30 psi and lower 3X FS (3000 psi max) for ranges 2000 psi and lower 2X FS (15,000 psi max) for ranges 10,000 psi and lower

Burst Pressure

8X FS for gauge ranges 725 psi and lower 6X FS for gauge ranges 30 psi and lower 4X FS (3500 psi max) for ranges 1000 psi and lower 3500 psi for absolute ranges 2000 psi and lower 15,000 psi for ranges above 2000 psi

Pressure Media Compatibility Fluids compatible with a welded assembly of Hastelloy C276 and 316L SS (NACE MR-01-75 compatible grades)

Supply Voltage 9 to 30 Vdc at the transmitter terminals (9-28 Vdc for IS units) Maximum load (Ω)=50x(V_{Supply}-9)

Warmup Time

500 ms max at power-up For pulse power applications refer to the PTX 500/600

Response Time

1 msec

Supply Sensitivity 0.005% FS/volt

Insulation Resistance >10MΩ @ 500 Vdc (@68°F)

Surge Protection (between connectors & case) Ranges up to 2000 psi withstands 2kV spike Ranges above 2000 psi withstands 1kV spike

Spike test conforms to EN61000-4-4, EN61000-4-5 Between electrical connectors and case.

Output

2-wire, 4-20mA

Performance

Accuracy

Combined non-linearity, hysteresis and repeatability ±0.2% FS BSL For improved performance, see Option A.

Zero Offset and Span Setting Factory set $\pm 0.05 \text{mA}.$ Further $\pm 5\%$ FS user adjustment available via non-interacting potentiometers

Long Term Stability ±0.1% FS/year

Operating Temperature Range -40 to 210°F for non-cabled models -40 to 175°F for PTX 7211 -40 to 250°F process media

Temperature Effects ±1% FS TEB over 14 to 122°F ±2% FS TEB over -5 to 175°F For improved performance, see Option A.

CE Conformity

EN50081.1, EN55022 EMC Emissions: EMC Immunity: EN61000-6-2 10V/m Heavy Industrial

Physical

Pressure Connection 1/4" NPT female

Optional adapters available

Electrical Connection

3 feet integral cable (longer lengths available) 6 pin bayonet connector DIN 43650A plug/socket For gauge ranges up to 1000 psig PTX 7211 and PTX 7217 require vented cable

Weight 7 oz. nominal

Acceleration Sensitivity 0.1%FS/g for 5 psi range decreasing to 0.005%FS/g for 150 psi range

Mechanical Shock

1000g half sine wave, pulse duration 1ms and 100g peak half sine wave, duration 11ms, both in each of 3 mutually perpendicular axes will not affect calibration

Vibration

Conforms to MIL-STD 810C, Method 514.2-2 Curve L

OPTIONS

Option A Improved Performance $\pm 0.1\%$ FS BSL $\pm 0.7\%$ FS TEB over 14 to 122°F

±1.5%FSTEB over -5 to 175°F

Intrinsic Safety Approval FM Class I, Div 1, Groups A,B,C,D

For CSA certifications refer to PTX 500/600

BAS 01 ATEX 1254 EEx ia IICT4 (-40°C < T_{amb} < 80°C)

Pressure Port Adapters

 1/4"
 NPT male
 PN182-141-01

 1/4"
 NPT male
 PN182-141-01

 1/4"
 NPT male to 1/2"
 NPT female
 PN182-143-01

 1/4"
 NPT male to 7/16"-20UNF (1/4 AN)
 PN182-142-01
All adapters 316 SS construction

Calibration Certificate

ORDERING INFORMATION

(1) Select	: model nu	ımber
Code	Model	
PTX 721	Base model	
	Code	Electrical connection
	1 6 7	Integral cable 6-pin bayonet DIN 43650A plug/socket

PTX 721 1 Typical model number

(2) Pressure range/units required

(3) Options (if required)

Continuing development sometimes necessitates specification changes without notice.

Druck is an ISO 9001 registered company.





GE Druck





Representative

