



## PTX 7500 Series

### Industrial Pressure Transmitters

- Standard ranges or custom scaled
- Gauge and absolute configurations
- Hastelloy and stainless steel wetted parts
- RFI protected to CE Heavy Industrial standard
- Intrinsically Safe versions available
- Compact, rugged and lightweight



The PTX 7500 series combines modular design with the latest advances in ASIC technology and surface mounted electronics. This provides a lightweight and cost effective solution for a range of industrial pressure measurement applications.

At the heart of the transmitter is Druck's own piezo-resistive silicon sensor. This technology is extensively qualified and proven, for example in aerospace and subsea programmes which demand the highest levels of performance and long term reliability.

The sensor features a Hastelloy isolation diaphragm and is enclosed in an electron beam welded 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 via non-interactive potentiometers readily located within the electrical connector. The PTX 7500 series also offers excellent RFI immunity, meeting the highest level of CE marking requirements for heavy industrial use.

# PTX 7500 Series



## Industrial Pressure Transmitters

### STANDARD SPECIFICATIONS

#### Pressure Measurement

##### Operating Pressure Ranges

0 to 250mbar, 500mbar, 1, 2, 3.5, 7, 10, 20, 35, 70 bar gauge and absolute.

0 to 140, 200, 350, 700 bar sealed gauge and absolute. *Note: Any pressure unit and span can be specified between 250mbar and 700 bar F.S.*

##### Overpressure

The operating pressure range can be exceeded by the following values without degrading performance:

- 6 x for 250 and 500mbar ranges
- 4 x for 1 and 2 bar ranges
- 3 x for 3.5 to 140 bar ranges (200 bar max)
- 2 x for 140 to 700 bar ranges

##### Pressure Containment

Gauge ranges:

- 8 x for 250 and 500mbar ranges
- 6 x for 1 and 2 bar ranges
- 4 x for 3.5 to 70 bar ranges (250 bar max.)

Absolute and Sealed Gauge ranges:

- 250 bar for ranges 250 mbar to 140 bar
- 1000 bar for ranges 200 bar to 700 bar

##### Pressure Media

Fluids compatible with a welded assembly of 316L stainless steel and Hastelloy C276. (NACE compatible grades).

##### Supply Voltage

9 to 30V at the transmitter terminals. (9 to 28V for IS units).

Maximum load ( $\Omega$ ) = 50 x (Supply Voltage -9).

##### Supply Sensitivity

0.005% F.S./mV.

##### Insulation Resistance

>10M $\Omega$  @ 500 Vd.c. (@ 20°C).

##### Surge Protection

Ranges up to 140 bar: withstands 2kV spike.  
Ranges above 140 bar: withstands 1kV spike.  
Spike test conforms to EN61000-4-5.

#### Output Current

4 - 20mA (2-wire) proportional for zero to full scale pressure.

#### Performance

##### Accuracy

Combined Non-linearity, Hysteresis and Repeatability.

Terminal definition: the output will not deviate from a straight line connecting zero and full scale output by more than 0.3% F.S. (typically 0.15% F.S.).  
Best Straight Line definition:  $\pm 0.2\%$  F.S. (typically  $\pm 0.1\%$  F.S.).

##### Zero Offset and Span Setting

Factory set  $\pm 0.05$ mA. Further nominal  $\pm 5\%$  site adjustment via non-interacting potentiometers.

##### Long Term Stability

At standard reference conditions the calibration will not change by more than 0.1% F.S. per year.

##### Operating Temperature Range

-40 to 100°C (80°C max. for PTX 7511).

##### Temperature Effects

For ranges of 500mbar and above the output will not deviate from room temperature calibration by more than:-  
1% F.S. over -10° to 50°C  
2% F.S. over -20° to 80°C  
Typically these values will be:-  
0.7% F.S. over -10° to 50°C  
1.5% F.S. over -20° to 80°C  
*For ranges below 500mbar, these values will increase pro-rata with span.*

#### Physical

##### Pressure Connection

G $1/4$  female. *Optional adaptors available.*

##### Electrical Connection

1m integral cable (longer lengths available) or 6 pin bayonet plug or DIN 43650A plug/socket.  
*For gauge ranges up to 70 bar PTX 7511/7517 require vented 6mm cable (P/N 192-004).*

#### Weight

200 grams nominal.

#### CE Conformity

EMC Emissions: EN50081-1, EN55022

EMC Immunity: EN61000-6-2: 1999 (10V/m Heavy Industrial).

### OPTIONS

#### (A) Intrinsic Safety Approval

Certification (Ex 99E2162) for use with IS barrier systems to EEx ia IIC T4 (Ta = 80°C) and Cenelec EN50020.  
300m max integral cable length (PTX 7511).  
Extra cable may be added during installation in accordance with the system certificate (Ex 99E2163).

#### (B) Screw-in male/male adaptors with bonded seal

- G $1/4$  male (P/N 190-040).
- $1/4$  NPT male (P/N 190-038).
- $7/16$  UNF male to MS 33656 (P/N 190-042).
- M14 x 1.5 male (P/N 190-036).
- G $1/2$  (pressure gauge)(P/N 190-039).
- All adaptors 316 stainless steel construction.

### ORDERING INFORMATION

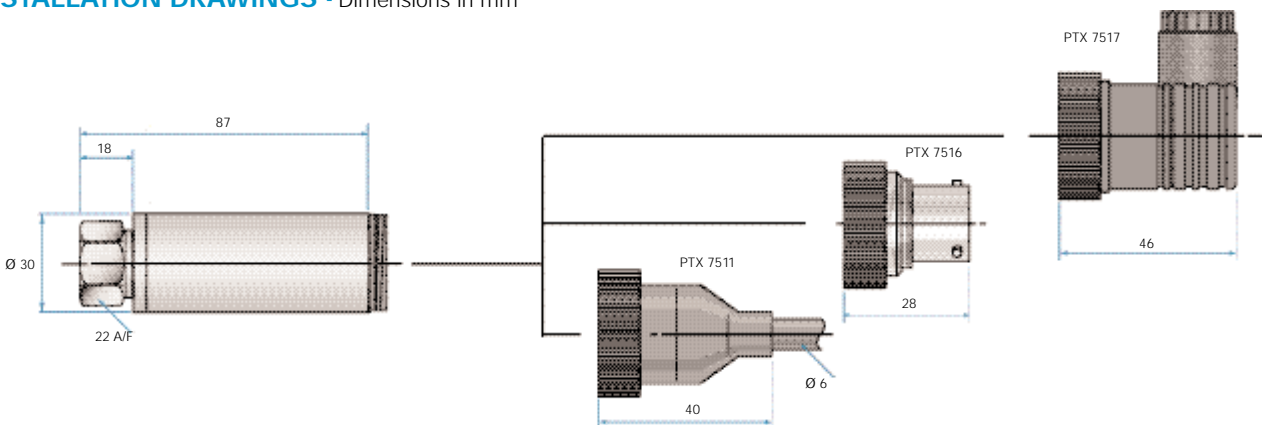
(1) Select model number:

Code	Model	Code	Electrical Connection
PTX 751	Base Model	1	Integral Cable (IP 65)
		6	6 Pin Bayonet (IP 65)
		7	DIN 43650A Plug/Socket (IP 65)
PTX 751	1		Typical Model Number

- (2) Pressure range/units required.  
(3) Options (if required).

**Continuing development sometimes necessitates specification changes without notice.**

### INSTALLATION DRAWINGS - Dimensions in mm



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