

# PTX 20 SUBMERSIBLE PRESSURE TRANSMITTERS (INSTALLATION GUIDE)



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Stock code 52-214-2497-01

## 1.0 RECEIVING & UNPACKING

### THIS PACKAGE CONTAINS DELICATE MEASUREMENT EQUIPMENT THAT REQUIRES CAREFUL HANDLING

Pressure transmitters are packed individually using suitable packing material which affords excellent protection for normal handling.

- The external condition of the carton should be noted, with particular attention for signs of damage from impact or puncture.
- When the goods are opened for inspection, ensure that the Operating Instructions and Calibration Certificate (if requested) are not accidentally lost or destroyed.
- If the product has been specified for service with a critical media requiring special cleaning, the outer protection should not be removed unless under conditions of controlled cleanliness.
- Do not touch, blow down or press against the measurement diaphragm as this can cause irreparable damage.

## 2.0 SPECIFICATION

Type Gauge or Absolute

Burst Pressure =>200 bar

Total Error Band (± % FS)<sup>1</sup>  
(0.1 to 0.5) bar

(-5 to 50) °C	Typical/Maximum	1.0/1.5
(-5 to 80) °C	Typical/Maximum	2.0/2.5

(>0.5 to 25) bar	(-5 to 50) °C	Typical/Maximum	0.7/1.0
	(-5 to 80) °C	Typical/Maximum	1.0/1.5
Accuracy <sup>*2</sup>	Standard	<= ± 0.25 % FS	
	Optional	<= ± 0.1 % FS	

<sup>\*1</sup>Total Error Band including - accuracy, temperature influences, temperature error zero and span, hysteresis and repeatability by maximum signal span (16 mA)

<sup>\*2</sup>Zero based non-conformity according to DIN16086, including hysteresis and repeatability by ambient temperature

Medium Temperature	(-5 to 80) °C
Storage Temperature	(-10 to 80) °C

Response Time <1 ms / (10 to 90) % FS

Long Term Stability	(0.1 to 0.5) bar
(Typical)	<0.5 %FS
(Maximum)	<4 mbar

(>0.5 to 2) bar	(Typical)	<0.2 %FS
	(Maximum)	<4 mbar
(>2 to 25) bar	(Typical)	<0.1 %FS
	(Maximum)	<0.2 %FS

Output (4 to 20) mA two wire

Supply Voltage (9 to 33) V DC  
Atex Version (9 to 30) V DC

Supply Voltage Influence Typically <0.05 % FS

Load Resistance  $RI = \frac{(V_{supply} - 9)}{0.02 A}$

Load Resistance Influence <0.05 %FS

Material	Diaphragm & Housing
	Stainless Steel 1.4435
Option	Titanium

Approvals	
Vibration	EN 60068-2-6
Shock	EN 60068-2-27
Emission, Class B	EN55022
Generic Immunity	EN 61000-4-2
Electrostatic discharge	EN 61000-4-3
Fast Transients (burst)	EN 61000-4-4
Surge	EN 61000-4-5
Conducted radio-Frequency	EN 61000-4-6
Ex-Approval gas / dust	
II 1G Ex ia IIB / IIC T3...T6	
II 1D Ex iaD 20 IP6x T145...T70 °C	

Temperature class	T6	T4	T3
Ambient Temperature Ta	(-5 to 50) °C	(-5 to 80) °C	(-5 to 80) °C
Process Temperature	(-5 to 50) °C	(-5 to 80) °C	(-5 to 80) °C

## 3.0 INSTALLATION

The installation should be undertaken in accordance with BS6739 - British Standard Code of practice for "Instrumentation in Process Control Systems: Installation Design and Practice."

All PTX transmitters are designed to withstand conditions normally found in process applications, however for maximum life and ease of maintenance the following guidelines should be observed.

- Prior to installation, ensure the pressure source is not under pressure.
- Avoid installing the pressure sensor in close proximity to motors, pumps, valves and heat sources. Excessive vibration or pressure peaks may falsify the sensor readings or even damage the sensor.
- Use screened vented cable (if required) with the screen connected to earth at one end only.
- Maximum supply voltage should not exceed 33 VDC

## 5.0 CALIBRATION

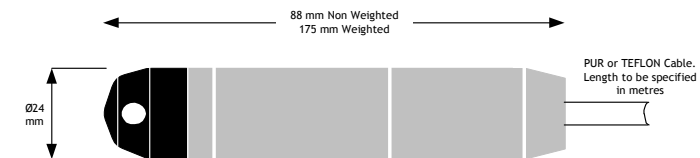
The unit can not be calibrated outside of the Factory – Please return for Re-Calibration.

## 6.0 WIRING

Colour	2-wire	3-wire
White	+Vin	+Vin
Yellow	Pout	GND
Brown		Pout
Grey	EP (only Ex)	

## 7.0 MECHANICAL

### Closed Version



### Open Version

