

# PRESSURE TRANSMITTER

## PTX19 SERIES

- Measuring Range (0.1 to 1000) bar
- Atex Gas & Dust Approved Version
- 2 wire (4 to 20) mA output
- High Temperature Stability
- Choice of Process Connection
- Compact and Robust
- Reverse Polarity and Short Circuit Protection



### INTRODUCTION

The PTX19 is a high quality 2 wire pressure transmitter providing a 2 wire (4 to 20) mA output over a wide pressure range. The piezoresistive element provides excellent accuracy and stability in an all welded stainless steel housing. The body of the product is oil filled and coupled with high accuracy electronics, this enables the product to maintain a very high level of accuracy and temperature stability when used with high temperature processes. There are a number of process connections to choose from, and measurement ranges of any value between 100 mbar to 1000 bar can be ordered making the PTX19 a very versatile product suitable for many applications.

### SPECIFICATION @ 20 °C

<b>Type</b>	Gauge or Absolute		<sup>*2</sup> Zero based non-conformity according to DIN16086, including hysteresis and repeatability by ambient temperature
<b>Pressure Range</b>	(0 to 1000) bar		
<b>Overpressure</b>			
(0.1 to 0.5) bar	3 bar		<b>Medium Temperature</b> (-40 to 150) °C
(>0.5 to 2) bar	3 x FS (min. 3 bar )		<b>Ambient Temperature</b> (-40 to 125) °C
(>2 to 600) bar	3 x FS (Max. 850 bar)		<b>Storage Temperature</b> (-40 to 125) °C
(>600 to 1000) bar	1500 bar		
<b>Burst Pressure</b>			<b>Response Time</b> <1ms / (10 to 90) % FS
(0.1 to 2) bar	=>200 bar		<b>Long Term Stability</b>
(>2 to 600) bar	=>850 bar		(0.1 to 0.5) bar
(>600 to 1000) bar	=>1500		(Typical) <0.5 %FS
			(Maximum) <4 mbar
<b>Total Error Band</b> (± % FS) <sup>*1</sup>			(>0.5 to 2) bar
<b>(0.1 to 0.5) bar</b>			(Typical) <0.2 %FS
(0 to 70) °C	Typical/Maximum	1.0/1.5	(Maximum) <4 mbar
(-25 to 100) °C	Typical/Maximum	2.0/2.5	(>2 to 1000) bar
<b>(&gt;0.5 to 1000) bar</b>			(Typical) <0.1 %FS
(0 to 70) °C	Typical/Maximum	0.7/1.0	(Maximum) <0.2 %FS
(-25 to 100) °C	Typical/Maximum	1.0/1.5	
<b>Accuracy</b> <sup>*2</sup>	Standard	<= ± 0.25 % FS	<b>Output</b> (4 to 20) mA two wire
	Optional	<= ± 0.1 % FS	<b>Supply Voltage</b> (9 to 33) V DC
			Atex Version (9 to 30) V DC
			<b>Supply Voltage Influence</b> Typically <0.05 % FS
			<b>Load Resistance</b> $RI = \frac{(V_{supply} - 9)}{0.02 A}$
			<b>Load Resistance Influence</b> <0.05 %FS

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

# PRESSURE TRANSMITTER

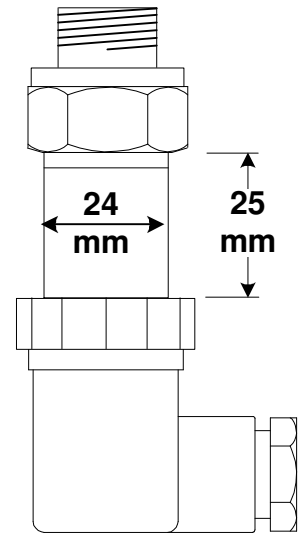
**Material** Diaphragm, Process Connection & Housing  
Stainless Steel 1.4435

## 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	(-40 to 50)°C	(-40 to 85)°C	(-40 to 125)°C
Process Temperature	(-40 to 50)°C	(-40 to 110)°C	(-40 to 150)°C



## ORDER CODE

PTX19

Intrinsic safety X

Pressure Type: Gauge G  
Absolute (vacuum) A

Pressure Connection:  
 1/4" BSP FEMALE Pressure fitting 1  
 1/2" BSP MALE Flush Diaphragm 2  
 1/4" BSP MALE Pressure fitting 5  
 1/2" BSP MALE Pressure fitting 7  
 1/2" NPT Male Pressure Fitting 8  
 1/4" NPT Male Pressure Fitting 9

Pressure Range:  
Low / High

OPTIONS

Extended Temperature Range (-25 to 100) °C compensated (allowed medium temperature (-40 to 125) °C	1a
Extended Temperature Range (-40 to 100) °C compensated (allowed medium temperature (-40 to 125) °C	1b
Compound Range Negative / Plus or Offset Zero	5
± 0.1 % FS Accuracy	6
Range below 100 mbar [Span (50 to 100) mbar]	7
Cooling Extension (-25 to 100) °C compensated (allowed medium temperature (-40 to 150) °C	8

EXAMPLE: PTX19/G/5/100/500/1a6  
Pressure Transmitter/Non IS/Gauge/1/4" BSP MALE Pressure fitting/  
Extended Temperature Range (-25 to 100) °C  
with ± 0.1 % FS Accuracy

