

PTX23 SUBMERSIBLE PRESSURE TRANSMITTER

- > CHEMICAL RESISTANT

- > HIGH TEMPERATURE STABILITY

- > HIGH ACCURACY

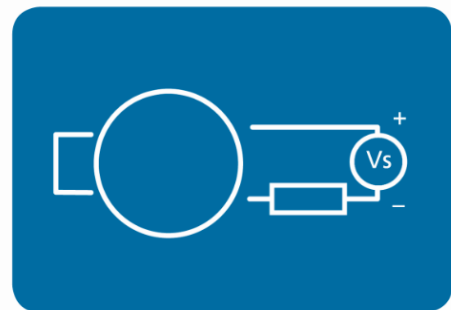
- > 2 WIRE (4 to 20) mA OUTPUT

- > LIGHTING PROTECTION OPTION

> INTRODUCTION

The PTX23 pressure transmitter is a high accuracy, robust, 2 wire (4 to 20) mA current output pressure sensing device designed to withstand immersion in most aggressive chemicals. It is an assembly containing a piezoresistive element, oil filled and sealed in a PVDF case with a choice of PUR or PTFE cable to any length required.

The PTX23 is ideal for applications measuring depth and levels in aggressive fluids, chemicals and waste water.



> FEATURE HIGHLIGHTS

TANK LINEARISATION (with SEM1600VI)

When used with products like the Status Instruments SEM1600VI conditioning block (the SEM1600VI can also provide power for the PTX23) a user non-linear curve can be applied to the (4 to 20) mA signal to allow for volume measurement in non-linear shaped tanks.

WEIGHTED OPTION

A weighted option is available for use in flowing or turbulent applications to help keep the PTX23 in place.

FOR USE IN AGGRESSIVE MEDIA

The PTX23 is constructed with a stainless-steel body, protected by a PVDF housing. For use in many applications where chemical resistance against submersion in aggressive liquids is required. Please check the suitability of PVDF for use with the intended media.

ALARM RELAYS (with SEM1636)

When the PTX23 is used with products like the Status Instruments SEM1636 (4 to 20) mA loop powered alarm, two independent alarm trips can be used. The SEM1636 can also be linearised for non-standard tanks

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ELECTRICAL INPUT		SPECIFICATIONS @20°C
Type/Range	Notes	Error/stability
Within (0 to 1) to (0 to 5) mH2O	Over pressure	3 bar
	Accuracy	≤ ± 2.0% FS ^{*1}
Thermal shift ±% FS/°C	Zero point	≤ 0.08
	Span	≤ 0.02
Long term stability	1 year (Typical/Maximum)	< 0.5% FS/<4 mbar
	Over pressure	3 x FS (≥ 3 bar)
Within (0 to 5) to (0 to 20) mH2O	Accuracy	≤ ± 1.0 % FS ^{*1}
	Zero point	≤ 0.04
Thermal shift ±% FS/°C	Span	≤ 0.02
	1 year (Typical/Maximum)	< 0.2% FS/<4 mbar
Within (0 to 20) to (0 to 250) mH2O	Over pressure	3 x FS
	Accuracy	≤ ± 0.5 % FS ^{*1}
Thermal shift ±% FS/°C	Zero point	≤ 0.02
	Span	≤ 0.02
Long term stability	1 year (Typical/Maximum)	< 0.1% FS/<0.2% FS
	Burst pressure	>200 bar
Response time	<1 ms	(10 to 90) % FS
FS = Full scale input range		
^{*1} Zero based accuracy according to DIN16086, incl. hysteresis and repeatability at ambient temperature		

OUTPUT		SPECIFICATIONS @20°C
Type/options	Range	Accuracy/stability/notes
(4 to 20) mA two wire		Accuracy included in input values
Supply voltage, normal	(9 to 33) Vdc	SELV
Supply influence		<0.05 % FS
Load resistance		Load = $\frac{V_{\text{supply}} - 9}{0.02 \text{ A}}$
Load resistance influence		<0.05 % FS
Reverse polarity protection		Yes

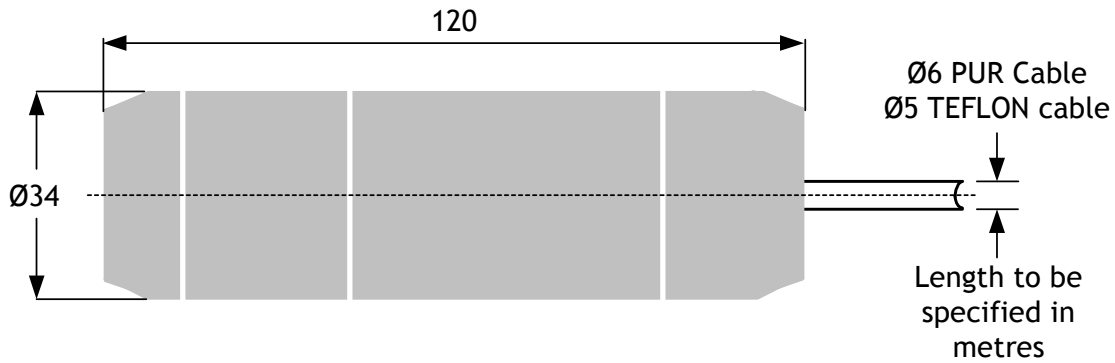
AMBIENT	
Operating temperature	Standard (-5 to 50) °C; extended (-5 to 80) °C ^{*1}
Process temperature	Standard (-5 to 50) °C; extended (-5 to 80) °C ^{*1}
Storage temperature	(-10 to 80) °C ^{*1}
^{*1} For temperatures > 50 °C Teflon cable must be used	

MECHANICAL	
Transducer	Stainless Steel 316L/1.4435, Teflon coated diaphragm
Housing	PVDF
Seals	Viton (options available)
Weight and weighted option	150 g
Cable	PUR, FEP (Teflon)

APPROVALS	
Generic immunity	EN 61000-4-2
Electrostatic discharge	EN 61000-4-3
Fast transients (burst)	EN 61000-4-4
Conducted RF	EN 61000-4-6

PTX23 SUBMERSIBLE PRESSURE TRANSMITTER

Mechanical



ORDER CODE PTX23						
PTX23						
G = Gauge	G					
Open end = 0	0					
Pressure range (low to high) mH ₂ O						
Standard temperature range (-5 to 50) °C = 0						
Extended temperature range (-5 to 80) °C = 1						
Lightening protection = 10						
Cable PUR = P (x length in m)						1 m supplied as standard
Cable PFE (Teflon) for temperatures over 50 °C = T (x length in m)						
Example: (0 to 5) mH ₂ O, standard temperature range, 8 m PUR cable						
Note: Pressure ranges can be quoted in other units if preferred						
PTX23	G	0	(0 to 5) mH ₂ O	0	P8	

To maintain full accuracy annual calibration is required.

The data in this document is subject to change. Status Instruments assumes no responsibility for errors

