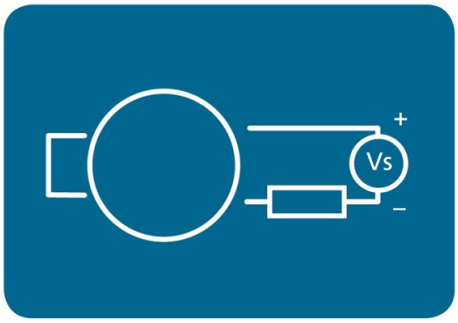
PTX20 MKII SUBMERSIBLE PRESSURE TRANSMITTER

- ANY MEASURING RANGE BETWEEN (0 to 0.5) mH2O to (0 to 250) mH2O
- HIGH TEMPERATURE STABILITY
- ATEX GAS & DUST APPROVED VERSIONS
- 2 WIRE (4 to 20) mA OUTPUT
- REVERSE POLARITY AND SHORT CIRUIT PROTECTION



INTRODUCTION

The PTX20 MKII is a high-quality level 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. A titanium housing is available on request for more aggressive process media. 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 open and closed versions to choose from, and a ballast weight can be specified too. Measurement ranges of any value between 1 mH2O to 250 mH2O can be ordered, making the PTX20 MKII a very versatile product, suitable for many applications.

FEATURE HIGHLIGHTS

TANK LINEARISATION (SEM1600VI)

When used with products like the Status Instruments SEM1600VI conditioning block (the SEM1600VI can also provide power for the PTX20 MKII), a user non-linear curve can be applied to the (4 to20) 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 PTX20 MKII in place.

OPEN OR CLOSED END

For added protection for use in environments where debris or solids may be present, a closed-end version is available to protect the sensor diaphragm.

ALARM RELAYS (SEM1636)

When the PTX20 MKII 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.

STATUS INSTRUMENTS

PTX20 MKII SUBMERSIBLE PRESSURE TRANSMITTER

ELECTRICAL INPUT		**SPECIFICATIONS @20°C**
Type/Range	**Notes**	**Error/stability**
Within (0 to 1) to (0 to 5) mH20 Within (-5 to 50) °C Within (50 to 80) °C Long term stability	Over pressure	3 bar
	(Typical/Maximum)	≤ ± (1.0/1.5) % FS[*1]
	(Typical/Maximum)	≤ ± (2.0/2.5) % FS[*1]
	1 year (Typical/Maximum)	< 0.5% FS/<4 mbar
Within (0 to 5) to (0 to 20) mH20 Within (-5 to 50) °C Within (50 to 80) °C Long term stability	Over pressure	3 x FS (≥ 3 bar)
	(Typical/Maximum)	≤ ± (0.7/1.0) % FS[*1]
	(Typical/Maximum)	≤ ± (1.0/1.5) % FS[*1]
	1 year (Typical/Maximum)	< 0.2% FS/<4 mbar
Within (0 to 20) to (0 to250) mH20 Within (-5 to 50) °C Within (50 to 80) °C Long term stability	Over pressure	3 x FS
	(Typical/Maximum)	≤ ± (0.7/1.0) % FS[*1]
	(Typical/Maximum)	≤ ± (1.0/1.5) % FS[*1]
	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] Total error including accuracy and temperature influences at maximum signal span (16 mA / 10 V DC)		

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 voltage, ATEX	(9 to 28) Vdc	
Supply influence		<0.05 % FS
Load resistance		Load = $\frac{(V\ supply - 9)}{0.02\ A}$
Load resistance influence		<0.05 % FS
Reverse polarity protection		Yes

AMBIENT	
Compensated temperature	(-5 to 50) °C[*1]
Process temperature	(-5 to 50) °C[*1]
Storage temperature	(-40 to 80) °C[*1]
[*1] For temperatures > 50 °C Teflon cable and extended temperature range option must be selected	

MECHANICAL	
Transducer and housing	Stainless Steel 316L/1.4435 and Stainless Steel 316L/1.4404
Seals	Viton
Weight and weighted option	210 g and 470 g
Cable	PUR, FEP (Teflon)

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

ATEX VERSION Ex-Approval gas/dust			
II 2 G Ex ia IIB T6 … T4 Ga II 1 D Ex ia IIIC T_{200} 160 °C Da I M1 Ex ia I Ma			
Temperature class	T6	T4	
Ambient temperature Ta	50 °C	85 °C	
Process temperature	50 °C	110 °C	

Mechanical

Fig. 1: Closed version

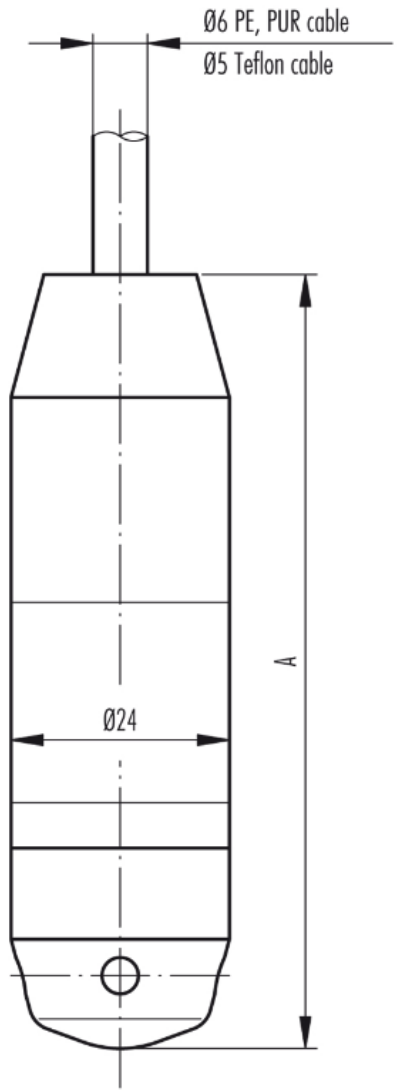


Fig. 2: Open version

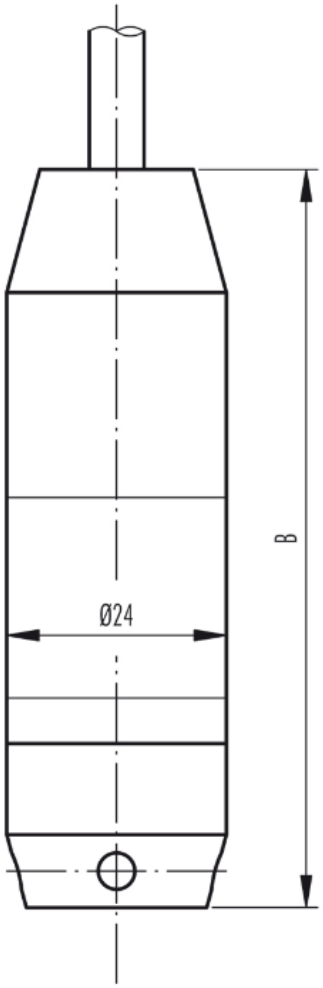
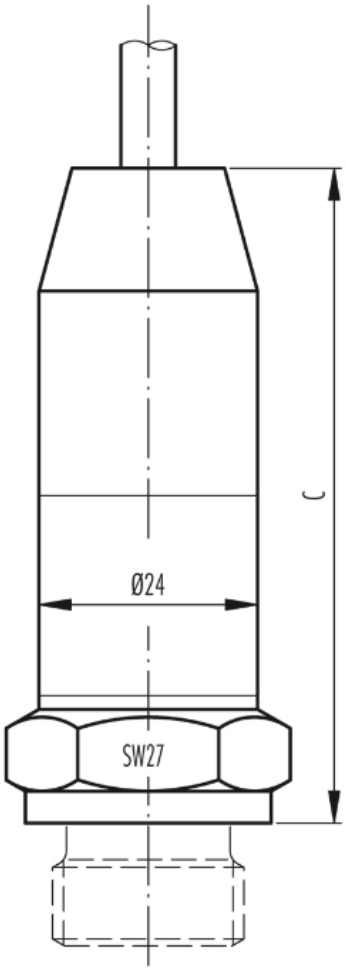


Fig. 3: with process connection



PART NUMBERS

PTX20 MKII/*/* (base price)	Submersible pressure transmitter 100 mBar to 25 Bar Gauge or ABS (Pricing valid for order weight under 2kg)
PTX20X MKII/*/* Exia (base price)	Ex Approval gas & dust
Pressure Connection	Closed
Pressure Connection	Open
Pressure Connection	1/4" BSP
Pressure Connection	1/2" BSP
Option 1b (add to base price)	Extended process temp range (-5 to 80) º C (standard (-5 to 50) º C)
Option 1e (add to base price)	Range 50 mBar to <100mBar
Option 1f (add to base price)	Special oil filling (Food drinking water applications)
Option 1h (add to base price)	Seals NBR (Food drinking water applications) (FKM Standard) SAFE AREA VERSION ONLY
Option 1i (add to base price)	Kalrez seal (FKM Standard) must have FEP cable
Option 1j (add to base price)	EDPM seal (FKM Standard)
Option 1k (add to base price)	Titanium body and process connection
Option T (add to base price)	FEP cable per metre (Chemical resistant - check application)
Option P (add to base price)	PUR cable per metre (Max operating 50 º C low chemical resistance - check application)
Option W (add to base price)	Ballast Weighted Option

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