

Submersible Capacitive Transmitters

For water level measurements

Series 46X

Series 46X-Ei

The Series 46X combines the ceramic measuring cell for low pressure ranges with the μ P-electronics of the digital Series 30 pressure transmitters. The signal values of the pressure- and temperature sensors are determined by a polynomial compensation¹⁾. The values can be shown and stored on a PC and can be reprogrammed. A reference tube integrated in the cable connects the referential chamber of the sensor with the ambient pressure.

Specifications

Pressure Ranges (FS)*	30	100	300	mbar
Overpressure	300	1000	1500	mbar

* Intermediate ranges for the analog output are realizable with no surcharge by spreading the standard ranges (note that the error band will then increase proportionally)

Type	2-Wire 8...28 VDC	3-Wire 13...
Supply (UB) 46X	10...30 VDC 4...20	28 VDC
Supply (UB) 46X-Ei	mA	15...30 VDC
Signal Output (scaleable)	<(UB-UB min.) / 20	0...10 V \geq
Load (k Ω)	mA	100 \pm 0,2
Error Band typ.**	\pm 0,1 %FS	%FS \pm 0,3
Error Band max.**	\pm 0,2 %FS	%FS

** Within the compensated temperature range

Stability	Operating	FS \geq 100 mbar: \pm 0,1 %FS	FS \leq 100 mbar: \pm 0,1 mbar
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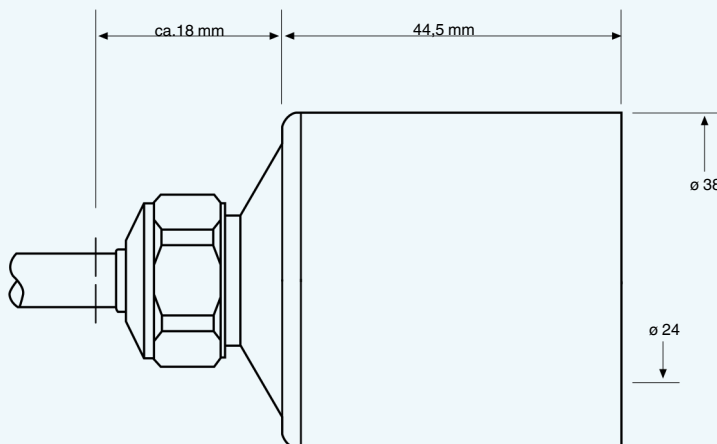
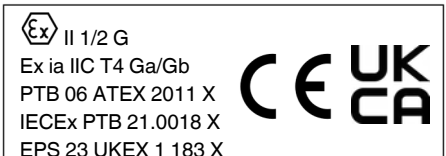
Temperature	0...80 °C (icing not permitted)
Compensated Range	10...50 °C

Electrical Connection	- Reference cable PE sheath \varnothing 5,8
Materials Contact with Media	- Cable length: Standard 5 m
	- Housing: Stainless steel (type AISI 316L)
	- Diaphragm: Ceramic, gold plated
	- Nitrile O-ring

Protection	IP68
Weight	\approx 400 g with 5 m cable
Options	Programmable, other versions

This pressure transmitter is also available as an intrinsically safe version (Series 41X-Ei) and can be used as a partition wall device at the border of Zone 0 and Zone 1. Pressure transmitters in the 41X-Ei series may only be used in conjunction with proven intrinsically safe equipment.

¹⁾ More information about the polynomial compensation and associated software you will find in the Series 41X datasheet.



Electrical Connections

	2-Wire	3-Wire
Black	+VCC	+VCC
White	OUT/GND	GND
Red		+OUT
Blue	RS 485 A	
Yellow	RS 485 B	