

# S-PT 8010

## SMART LINE Series

### Submersible pressure transmitter Hydrostatic level transmitter



#### Applications

- Level and depth measurement
- Wells, surface and groundwater
- Waste water treatment
- Hydraulic and distribution systems
- Drinking water
- Dams and reservoirs
- Liquid storage tanks

#### Features and benefits

- Pressure range 0-1 bar and 0-20 bar
- Small diameter, 24 mm
- Excellent repeatability and stability over time
- Cable with integrated air tube for atmospheric reference



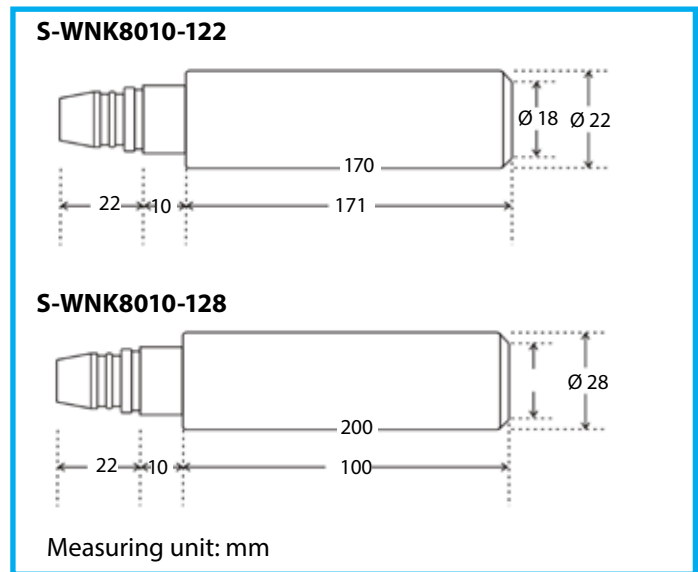
## PRINCIPLE OF OPERATION

S-PT 8010 is a high cost effective submersible level sensor suitable for liquid level or pressure and depth measurement. The sensor measures the level of liquids based on the simple relationship between the height of the liquid column and the resulting hydrostatic pressure.

The pressure measurement is performed on the separating membrane of the immersed sensor and is compared to the atmospheric pressure through a capillary inserted in the cable.

The sensitive element is a piezoresistive silicon sensor, isolated from the measured fluid to by a separation diaphragm.

The sensor works in combination with an electronic amplifier that provides a standardized signal 4 ÷ 20 mA, 0 ÷ 10V, 0 ÷ 5V, 1 ÷ 5V, mV.



## MECHANICAL CONSTRUCTION

The proven encapsulation technology and the assembly procedure insure the quality and performance of this series: high stability, SS316 or SS304 housing, leakage proof, moist proof and frost proof.

The level transmitter S-8010 (standard immersion type) is used for petroleum, metallurgy, hydraulics, city water supply, hygrometry, etc.

Simple process integration and seamless addition into existing control systems can be achieved thanks to the analogue output signal and the two-wire technology. The immersion probe can be perfectly adapted to the measuring point using a wide range of mechanical accessories.

## SELECTION GUIDE

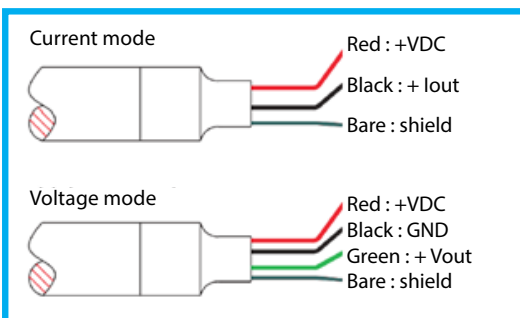
The order code consists of the product root followed by the positions of the selected options (S-WNK8010-...)

S-PT 8010-122- S-PT 8010-128-	
Probe material	<b>S1:</b> SS 304 (standard option) <b>S2:</b> SS 316L
Cable material	<b>C1:</b> Polyethylene <b>C2:</b> PTFE (for corrosive fluids)
Cable length	Polyethylene to specify PTFE to specify
Output signal	<b>D1:</b> 0-5 V <b>D2:</b> 0-10 mA <b>D3:</b> 4-20 mA <b>D4:</b> 1-5 V <b>D5:</b> mV

## TECHNICAL DATA

Measuring range	0... 0.5 ... 200 mH <sub>2</sub> O
Overload pressure	150% of measuring range
Accuracy	±0.5%, ±0.25% of full scale/year
Measured medium	Liquids, water
Stability	±0.25% of full scale/year
Power supply	24 VDC
Output signal	4-20 mA (2-wire) 0-10 VDC, 0-5 VDC, 1-5 VDC (3-wire) on customer specification
Operating temperature	-10...80 °C
Protection degree	IP68
Sensor material	Stainless steel, diffusion silicon
Cable material	PVDF, PTFE
Connector	Vented cable, submersion type
Housing material	Stainless steel

## ELECTRICAL CONNECTION



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