

PIEZOMETRIC WATER LEVEL Sensor

t042 TLP



High accuracy

Temperature compensation of the measurement

Available with different measurement ranges

Description

TLP sensor represents a reliable solution for what concerns the high-precision water level monitoring technologies.

A stainless steel structure makes the sensor watertight up to depth of 300 meters, guaranteeing a strong level of electrical and physical insulation. The transducer and all the electrical components are contained in a case which allows a temperature compensation of the output signal to occur, ensuring high accuracy up to 0,02 % FS.

The measurement principle is based on a piezoresistive sensing element. It works by converting the hydrostatic pressure into an electrical signal corresponding to the exact water level.

TLP shall be submerged and installed deeper than the minimum water column provided for, and it shall be fixed to a vertical or sloping wall, or even on the bottom.

The sensor is supplied with different lengths of power and signal cable.



Main features

- **High accuracy**
- **Temperature compensation of the measurement**
- **IP68 protection**
- **Protection against overvoltages**

Technical Specifications*

Measurement performance

Water level [m]

Transducer	Piezoresistive
Measurement range	0 ÷ 10, 0 ÷ 18, 0 ÷ 28, 0 ÷ 45, 0 ÷ 65
Resolution	0.002 % FS
Accuracy	± 0,02 % FS

Operating conditions

Temperature	-20°C ÷ +80°C
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Outputs

RS485-Modbus	Pressure [bar]
Current	4-20 mA ↔ measurement range

Power supply and consumption

	RS485-Modbus	4-20 mA
Voltage supply	8 ÷ 32 Vdc	8 ÷ 32 Vdc
Power consumption (mA)	< 8 mA	3,2 ÷ 20

Mechanical specifications

Protective body	Stainless steel
Cable	Polyethylene
Weight	150 g
Dimension	Ø = 22 mm; Length = 90 mm

Ordering codes

Range 0 ÷ 10 m, 10 m cable	t042a-TLP10
Range 0 ÷ 18 m, 20 m cable	t042e-TLP20
Range 0 ÷ 28 m, 30 m cable	t042f-TLP30
Range 0 ÷ 45 m, 50 m cable	t042g-TLP50
Range 0 ÷ 65 m, 70 m cable	t042h-TLP70

*Changes on technical performances can be applied upon request of specific calibration