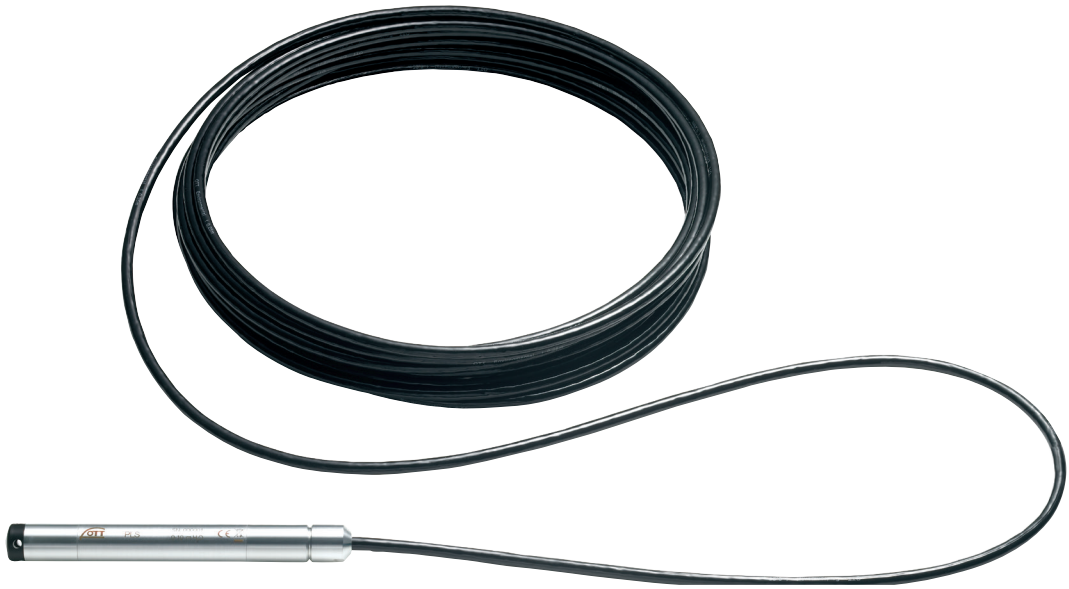
PLS



- Surface Water Level
- Stream Gauging
- Flood Warning
- Hydropower
- Storm Water
- Lake & Reservoir
- Tide Monitoring
- Tsunami Warning
- Groudwater Level
- Aquifer Characterization
- Mining
- Hydro Fracturing
- Drinking Water
- Recharge
- Dam Seepage

Ceramic capacitive pressure probe

Pressure probe / level probe with built-in temperature sensor

Relative pressure probe with air capillary used to compensate for changes in barometric pressure
High accuracy, ruggedness, and long-term stability
Built-in microcontroller – compensates for temperature effects and takes into account specific correction values, e.g. density
Robust probe lead with Kevlar core for length stabilization and internal compensating capillary
Rugged design: waterproof molded electronics (IP68 rated) and enclosure made of high-quality saltwater resistant steel
Optimized resolution is achieved by assigning the 4 ... 20 mA to that part of the measuring range that is actually required

Rugged and Precise

The OTT PLS is equipped with a rugged, ceramic capacitive measuring cell. The robust ceramic cell offers industry-leading accuracy and does not deform over time like membrane technology, providing long-term measurement stability.The probe housing consist of high-quality saltwater resistant steel for reliable use in harsh environments.

Simple Interfacing

Standard communication outputs (SDI-12 or 4 ... 20mA) for simple and flexible connection to external dataloggers.

Compensated

Built-in microcontroller compensates for temperature effects and applies correction values for gravitational acceleration and water density.
The vented pressure probe, automatically compensates for changes in barometric pressure.

Technical Specifications

	Feature	Value
WATER LEVEL MEASUREMENT (PRESSURE)	Measuring range	0 ... 4 m, 0 ... 10 m, 0 ... 20 m, 0 ... 40 m, 0 ...100 m water column
	Resolution (SDI-12)	0.001 m; 0.1 cm; 0.01 ft; 0.1 mbar; 0.001 psi
	Accuracy (linearity and hysteresis) SDI-12	±0.05 % FS; measuring range: 0 ... 4 m, 0 ... 10 m; water column: Accuracy for ≤ 10 ft. (3m): ±0.01 ft; meets USGS OSW requirements for accuracy
	Accuracy (linearity and hysteresis) 4 ... 20 mA	≤ ±0.1 % FS 10 ppm/°C at 20 °C
	Long-term stability (linearity and hysteresis)	≤ ±0,1 % / year FS
	Zero point drift	≤ ±0.1 % FS
	Temperature-compensated operating range	–5 °C ... +45 °C (ice-free)
	Units	cm, m, ft, mbar, psi
TEMPERATURE MEASUREMENT	Measuring range	–25 °C ... +70 °C
	Resolution	0.1 °C / 0.1 °F
	Accuracy	±0.5 °C / ±0.9 °F
	Units	°C, °F
	Pressure sensor (capacitive pressure sensor)	Ceramic Temperature compensated Overload safe for up to 5 times the measuring range without permanent mechanical damage
	Temperature sensor	NTC temperature sensor
INTERFACE	Available interfaces (use as required)	4 ... 20 mA, SDI-12, RS-485 (via SDI-12 protocol)
ELECTRICAL DATA	Supply voltage	+9.6 ... +28 V DC, typ. 12/24 V DC
	Power consumption (SDI-12) Sleep	< 600 µA
	Power consumption (SDI-12) Active	< 4 mA
	Reaction time	After power-on, the measured value is steady and ready for output <1s
DIMENSIONS AND WEIGHT	Dimensions L x Ø	195 mm x 22 mm
	Weight	approx. 0.3 kg
INTERFACE CABLE LENGTHS	SDI-12	1 ...100 m
	SDI-12 via RS-485	1 ...1000 m
	4 ... 20 mA	1 ...1000 m
ENVIRONMENTAL CONDITIONS	Operating temperature	– 25 °C ... +70 °C
	Storage temperature:	– 40 °C ... +85 °C
	Protection type	P68
MATERIALS	Housing	POM, Stainless steel 1.4539 (904L), resistant to sea water
	Seals	Viton
	Cable jacket	PUR
	Mechanical strength	Meets the mechanical shock tests of IEC 68-2-32
EMC/EMI AND NORMS	EMC limits	EN 61000-4-2/3/4/5/6 and EN 61000-6-3 Class B are adhered to CE

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