



Surface Water Level  
Stream Gauging  
Flood Warning  
Hydropower  
Storm Water  
Lake & Reservoir  
Tide Monitoring  
Tsunami Warning  
Groudwater Level  
Aquifer Characterization  
Mining  
Hydro Fracturing  
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## 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 consists 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)
TEMPERATURE MEASUREMENT	Units	cm, m, ft, mbar, psi
	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 