



Pressure sensor for longterm measurement of conductivity, temperature and water level

- **Application**
Surface water, Groundwater
- **Measurement technology**
Vented pressure cell and 4-electrode graphite conductivity cell
- **Parameters measured**
Waterlevel, Temperature, Conductivity
- **Product Highlights**
Measures and stores water level, temperature, and conductivity data
- **Measurement range**
Water level: 0 ... 4, 10, 20, 40, and 100 m Conductivity: 0.001...2.000 mS/cm, 0.10...100.00 mS/cm
- **Accuracy**
 $\pm 0,05$ % FS
- **Internal data logger**
Yes

The OTT CTD is an integrated sensor and datalogger for measurement of water level, temperature, and conductivity in groundwater and surface water applications. It features a robust ceramic measuring cell for long term accuracy and has outputs for

salinity and total dissolved solids (TDS). Its built in datalogger manages and stores all measurements at user-programmable intervals.

Lifetime (@ 1 h interval)	
with Lithium-batteries	≥5 years
with Alkaline-batteries	≥1.5 years
Interface	Infrared (IrDA)

Datalogger

Memory	4 MB
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Amount of values	approx. 500,000
Measurement interval	5 sec ... 24 h
Storage interval	5 sec ... 24 h

Installation	≥ 1"
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Material	ABS, POM, stainless steel 1.4539 (904 L)
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Weight	
Com unit (incl. bat)	approx. 0.410 kg
Sonde	approx. 0.430 kg

Dimensions	
Com unit L x Ø	400 mm x 22 mm
Sonde L x Ø	317 mm x 22 mm

Max system length	1.5 ... 200 m ±1 % ±5 cm
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Storage temperature	-40 ... +85 °C
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Protection class	
Com unit	IP67 (water column max. 2 m, duration max. 24 h)
Sonde	IP68

Water level measurement	
Measurement range:	0 ... 4 m, 10 m, 20 m, 40 m, 100 m
Resolution:	0.001 m / 0.1 cm / 0.01 ft / 0.1 inch / 0.0001 bar / 0.001 psi
Accuracy:	± 0.05 % FS
Units:	m, cm, ft, inch, bar, psi
Temperature compensated operating range	-5 ... +45 °C (icefree)

Temperature measurement	
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Measurement range:	$-25 \dots +70 \text{ }^{\circ}\text{C}$
Resolution:	0.01 $^{\circ}\text{C}$
Accuracy:	$\pm 0.1 \text{ }^{\circ}\text{C}$

Conductivity measurement Measurement range selectable

Measurement range 1:	0.001 ... 2.000 mS/cm
Resolution:	0.001 mS/cm
Accuracy:	$\pm 0.5 \%$ of measurement value; (min $\pm 0.001 \text{ mS/cm}$)
Units:	mS/cm / $\mu\text{S/cm}$

Measurement range 2:	0.1 ... 100 mS/cm
Resolution:	0.01 mS/cm
Accuracy:	$\pm 1.5 \%$ of measurement value; (min $\pm 0.01 \text{ mS/cm}$)
Units:	mS/cm

Electrical data	
Power supply	Lithium or Alkaline batteries 3 x 1.5 V battery (LR6-AA, FR6-AA)