

Level and conductivity
measurement
OTT CTD – groundwater data logger
with conductivity measuring cell



## OTT CTD

### Groundwater Data Logger

The OTT CTD is a professional data logger for the measurement of water level, temperature and conductivity. Furthermore, it can also output salinity and TDS (total dissolved solids). The CTD saves all measurements in the integrated, non-volatile 4 MB ring buffer (approx. 500,000 values).

In addition to the proven product characteristics of high-quality pressure probes from OTT, the OTT CTD provides a conductivity measuring cell that meets all the demands of hydrological data collection. Overall, the OTT CTD has proved to be reliable and indestructible. This is ensured by the robust and reliable measuring cells, the saltwater resistant stainless-steel housing, the kevlar-strengthened probe cable with integrated compensating capillary and an ingenious design.

The infrared interface allows the data to be conveniently read out or transferred from the device with a notebook. A well structured, intuitive operating program with all the necessary functions for data output and export, configuration and calibration is supplied. And if remote data transmission is needed: with the OTT ITC, the CTD can easily be equipped for data transmission using GSM/SMS or GPRS.

# Quantitative Hydrology



#### Conductivity measurement

Thanks to the 4-electrode-design and the high-grade graphite electrodes, the conductivity measuring cell is inured to polarization effects and contamination. This guarantees reliable measuring data even in harsh environments.

#### Technical data

**Parameters** 

Water level measurement

Range

Resolution

Accuracy (linearity + hysteresis)

Pressure sensor

Overload protection\* pressure sensor

\*no lasting mechanical damage

Temperature compensated range

Temperature measurement

Range Resolution

Accuracy

Units

Conductivity measurement

Range

Resolution

Accuracy

Units

General data

Power supply

Operating life

(1 h polling interval, 50 m cable)

Interface

Data memory

Polling- / storage interval

Dimensions communication unit

Dimensions pressure probe

Material of pressure probe housing

EMV limits

water level/pressure, temperature, specific conductivity, salinity, TDS

0 ... 4 m, 0 ... 10 m, 0 ... 20 m,

0 ... 40 m, 0 ... 100 m

0.001 m, 1 cm, 0.01 ft, 0.1 ft, 0.1 in, 1 in

±0.05 % FS

m, cm, ft, inch, bar, psi

ceramic; temperature compensated

>4 x measurement range

-5 °C ... +45 °C (ice-free)

-25 °C ... +70 °C

0.01 °C

±0.1 °C

°C, °F

0.001 ... 2.000 mS/cm 0.10 ...100.00 mS/cm

0.001 mS/cm

0.01 mS/cm

±0.5% of meas. value ±1.5% of meas. value (min. ±0.001 mS/cm) (min. ±0.01 mS/cm)

mS/cm, µS/cm

mS/cm

3 x 1.5 V battery (LR6, AA, FR6 AA)

alkaline or lithium

≥5 years (lithium); ≥1.5 years (alkaline)

Infrared (IrDA)

4 MB / approx. 500.000 values

5 seconds ... 24 hours

400 mm x 22 mm (L x Ø)

317 mm x 22 mm (L x Ø)

stainless steel DIN 1.4539 (904 L)

complies with EN 61000/ EN 55011 Class B



#### **Applications**

Control measurements in areas of potential pollution, e.a.:

- Environmental checks of groundwater and surface waters
- Monitoring of bank filtration wells
- Monitoring of saltwater intrusion
- Determination of geogenic groundwater salinization
- Renaturation of former sand and gravel pits or of wetlands
- Recultivation of contaminated sites and devastated open-cast mining areas
- Aguifer storage and recovering
- Areas used intensively for agriculture

#### Benefits

- 4-electrode conductivity measuring cell minimizes polarization effects
- Robust, ceramic capacitive pressure cell with long-term stability
- Corrosion and saltwater resistant housing material
- Large memory capacity
- Operating software with simple user guidance
- Can be used immediately due to precalibration
- Simple battery changes: the probe remains in the water
- Minimal maintenance
- Easily equipped for data communication using GSM/GPRS

#### OTT - Your Partner for:

- Water level measurement in groundand surface water
- Discharge measurement
- Precipitation measurement
- Water quality measurement
- Data management and communication
- Installation, maintenance and training

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