



### 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 |
|--------|------|

|                      |                 |
|----------------------|-----------------|
| Amount of values     | approx. 500,000 |
| Measurement interval | 5 sec ... 24 h  |
| Storage interval     | 5 sec ... 24 h  |

|              |      |
|--------------|------|
| Installation | ≥ 1" |
|--------------|------|

|          |                                          |
|----------|------------------------------------------|
| Material | ABS, POM, stainless steel 1.4539 (904 L) |
|----------|------------------------------------------|

|                      |                  |
|----------------------|------------------|
| 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 |
|-------------------|--------------------------|

|                     |                |
|---------------------|----------------|
| Storage temperature | -40 ... +85 °C |
|---------------------|----------------|

|                  |                                                  |
|------------------|--------------------------------------------------|
| 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<br>/ 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 |  |
|-------------------------|--|

|                    |                                          |
|--------------------|------------------------------------------|
| 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<br>3 x 1.5 V battery (LR6-AA, FR6-AA) |