



With a float-operated Shaft Encoder Thalimedes, another breakthrough in water-level measuring technology has been achieved.

Thalimedes is used for the continuous monitoring and storage of ground- and surface water level.

Due to its easy handling and its impressive cost-effective ratio, the Thalimedes Shaft Encoder is the ideal device for modernisation of existing measuring locations.

The device can be easily combined with conventional mechanical chart recorders, independent of the installation conditions.

For groundwater-monitoring we offer an optionally installation set for 4" well-pipes and bigger (incl. flood-tide protection).

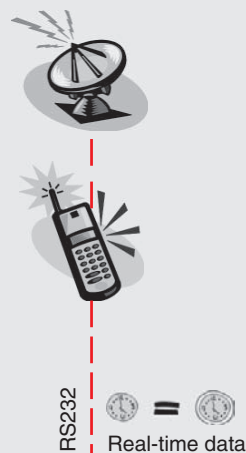
In-situ data logging of the measured values results in the reduction of the expenditure of both cost and time as well as in elimination of errors that are brought about when data is read out or transferred manually.

Continuous recording of water levels ensures the continuous and uninterrupted measurement of changes in the water level over long periods of time, which in turn yields a reliable basis for competent decisions.

State of the Art technology!

**Communication**

- **RS232 interface**
- **SDI 12 interface** for connecting the device to various data transmission options via:
  - serial modem / GSM
  - integral adjustable time switch for battery operated modems (on/off)
  - radio, satellite, dedicated line, etc.



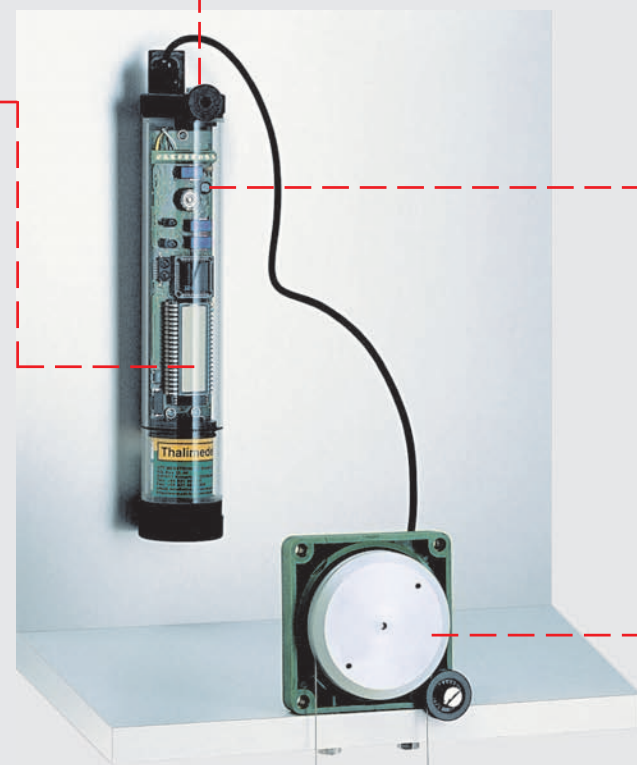
- **LCD-display** (Level-monitoring function) for the clear and easy-to-read indication of date, time, battery status and measured value (water level)

Clear data readout ensured even when the instrument is used in the sun

The display is activated for water-level monitoring purposes by an integrated motion sensor.

**Recording**

- **Ring-memory (EEPROM):** For storage up to 30,000 measured values.
  - The sampling and logging intervals can be preset (from 1 minute to 24 hours).
  - **1.5 V power supply:** (1 x 1.5 V C-type cell) for a system operation up to 15 months at hourly measuring-/ storage interval.
- Simple battery-change, no tools required.



Thalimedes in solo-operation

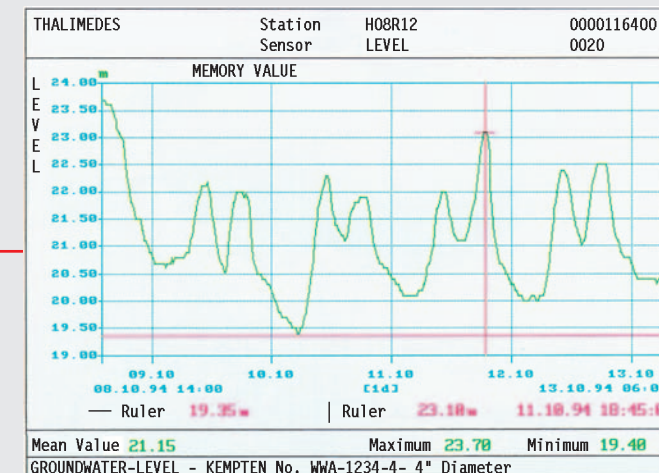
**Communication**

- **Contact free IrDA-interface (infrared technology) = cable free data transfer (locally);**
  - Non-sensitive to humidity and dust
  - High transfer rate (reading of approx. 11,000 measured values in only 4 seconds)
- **Bi-directional in-situ communication via**
  - notebook/PC
  - palmtop
  - VOTA (Multifunctional Unit) the OTT field rugged PC.
- **Remote data transmission via RS232 interface.** The measured values are stored as ASCII-files and are available for graphical or tabular evaluation in EXCEL, LOTUS, QUATTRO-PRO, HYDRAS II, etc..



**Measurement**

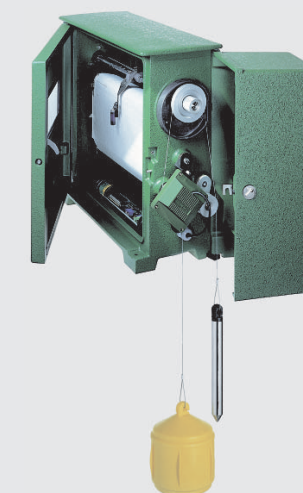
- **Shaft Encoder** In the case of changing water level, the smooth running float pulley is put into motion via the float and the float cable (default resolution in mm, others scalable).  
  
These signals are converted into electronic signals, transmitted to the Thalimedes Data Logger via the data cable and stored in the Data Logger in preset time intervals.  
  
The stored values can then be transmitted via RS232 interface or IrDA-interface for further processing.



The measured values are stored as ASCII-files and are available for graphical or tabular evaluation (HYDRAS II, EXCEL, LOTUS, QUATTRO-PRO, etc.)



Thalimedes in combination with a mechanical Water-Level Recorder Type X



Thalimedes / R 20 Strip-chart Recorder



Thalimedes / R 16 Vertical Recorder

## Technical data

### Data Logger

**Plastic housing** IP 68  
Dimensions: 244 x 47 mm dia.  
Weight: 320 gr (including battery)  
Temperature range: -20 °C ... + 70 °C

with an integrated

**RS232 interface**  
for direct connection of the Thalimedes to various data transmission systems, such as:  
- serial modem  
- GSM modem  
- satellite modem.

**IrDA-interface (infrared technology)**  
for cable free data transfer  
- PC standard  
- for older notebooks or PC's that are not equipped with standard IrDA-interface, plug-in adapters can be obtained from OTT MESSTECHNIK or from computer dealers.

### SDI 12 interface

**LCD-display**  
single-line, 4 ½ digits, character height: 12 mm.

**Ring memory (EEPROM)**  
Storage capacity of data over approximately 9 months at a storage interval of 1 hour.  
The sample- and storage intervals can be preset from 1 min. ... 24 hours.

**Measuring mode:** water level

### Shaft Encoder

**Material:** Plastic housing (IP 54)  
**Dimensions:** 82 x 82 x 34 mm  
**Weight:** 140 gr  
**Temperature range:** -20 °C ... + 70 °C

Absolute sensor system. With mounting bore holes and pulley for float cable.

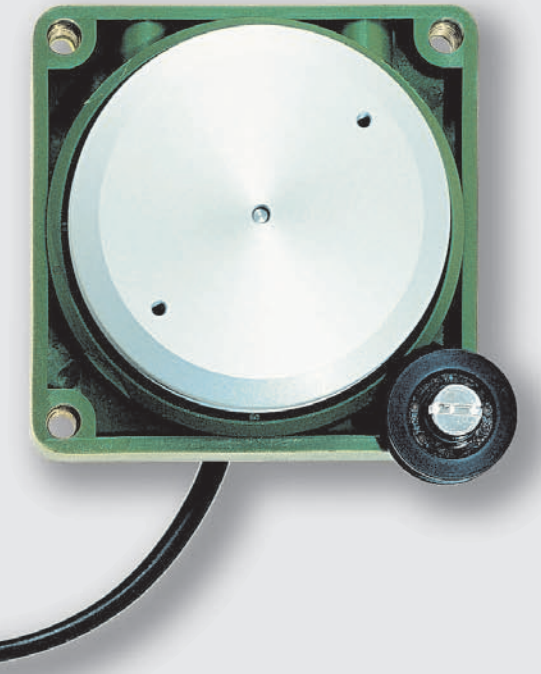
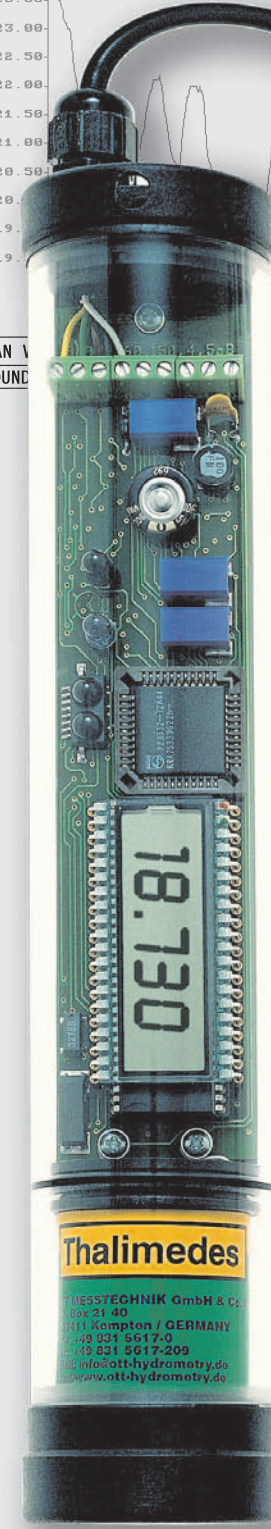
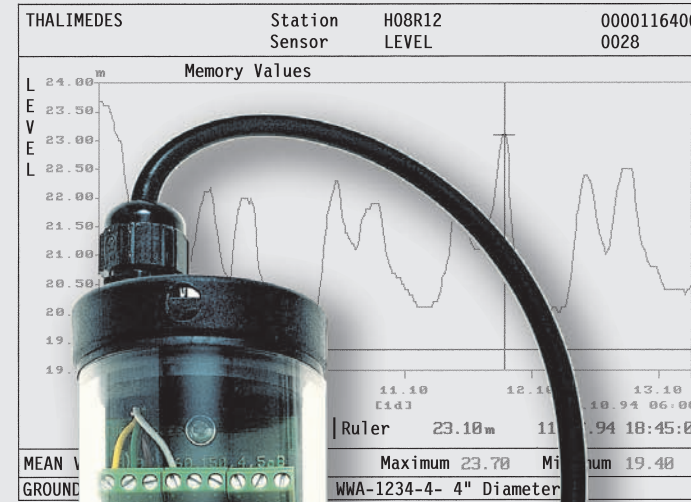
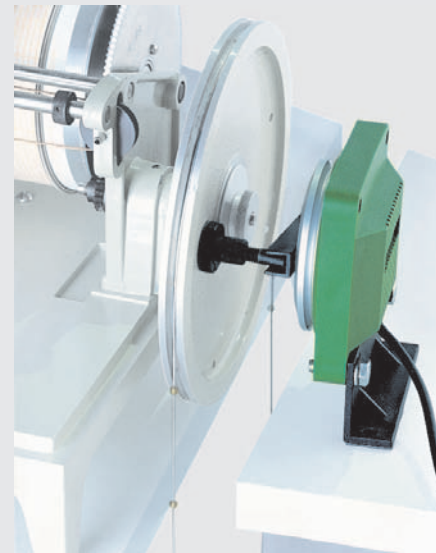
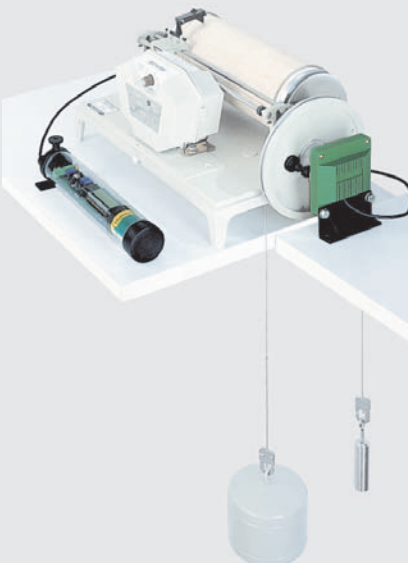
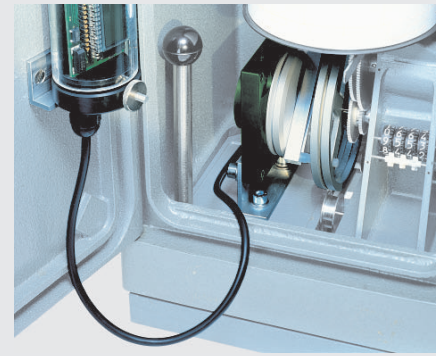
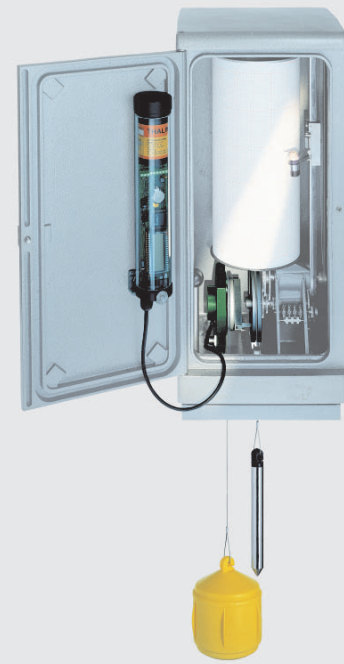
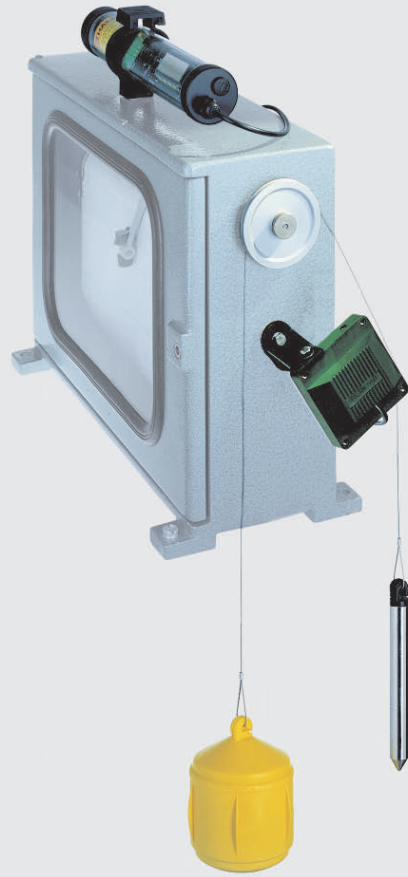
**Resolution:** 1 mm (cm, ft.) - scalable -  
**Measuring range:** ± 19.999 m (mm)  
± 199.99 m (cm)

**Float pulley** (circumference 200 mm)  
for float cable with a diameter of 1 mm (default)  
other cable diameters can be scaled

**1.5 V power supply** (1 x 1.5 V C-type cell)  
for a system operation up to 15 months at hourly measuring-/storage interval.  
(reference temperature + 20 °C)  
- simple battery-change without operation.

**Option:** Installation-Set for 4" well-pipes and bigger, incl. flood-tide protection.

Easy installation or attachment to conventional Water-Level Recorders of various manufacturers.



**Float operated  
Shaft Encoder with  
integral Data Logger  
for level measurement**

# Thalimedes

- Proven OTT- quality at an unrivalled cost-effective ratio!
- LCD-display (time, date, battery-status, measured values)
- For solo-operation or in combination with conventional chart recorders (different makes)
- RS232 interface for bi-directional data transfer via serial modem / GSM, radio, satellite, etc.
- Optical IrDA-interface (infrared technology)  
- Cable free data transfer, not sensitive to humidity or dust
- 1.5 V DC power supply ensures a system-operation for up to 15 months



Small design details may be changed without notice.

**Delivery program, e.g.:**  
Pressure Probes  
Data Loggers  
Data Transmission Units  
Water Level Recorders  
Current Meters  
  
**Please ask for free information!**



OTT MESSTECHNIK GmbH & Co. KG  
Postfach 21 40 · D-87411 Kempten  
Ludwigstraße 16 · D-87437 Kempten  
Tel. ++49 (0)831 / 5617-0 · GERMANY  
Fax ++49 (0)831 / 5617-209  
eMail: info@ott-hydrometry.de  
http://www.ott-hydrometry.de

55.430.000.P.E

