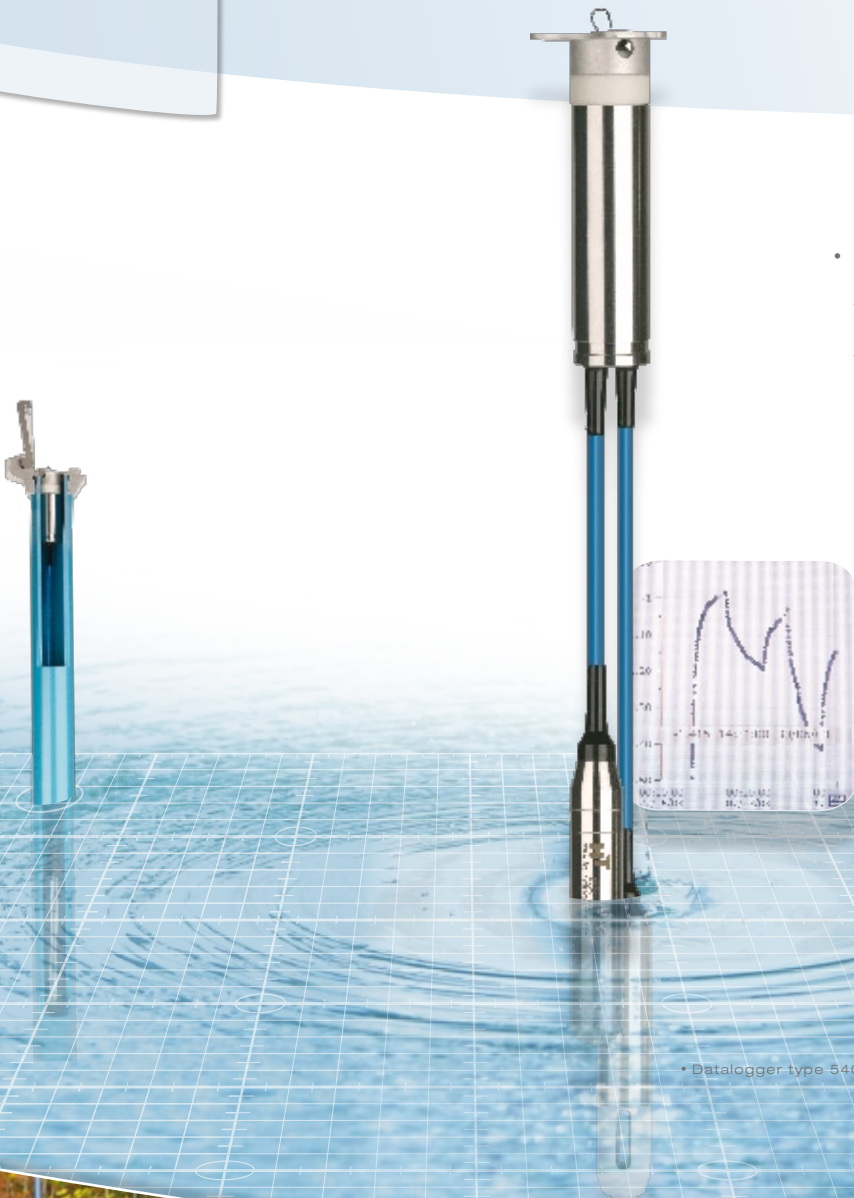


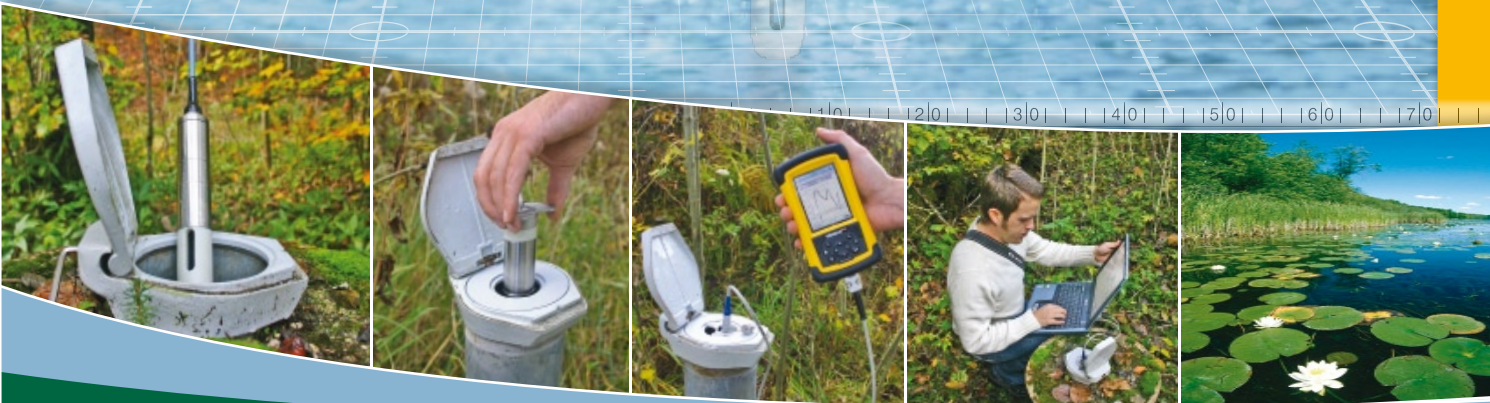
## Datalogger type 540

For **measuring** and **recording** of **water level** and **water temperature** on **long-term observations**

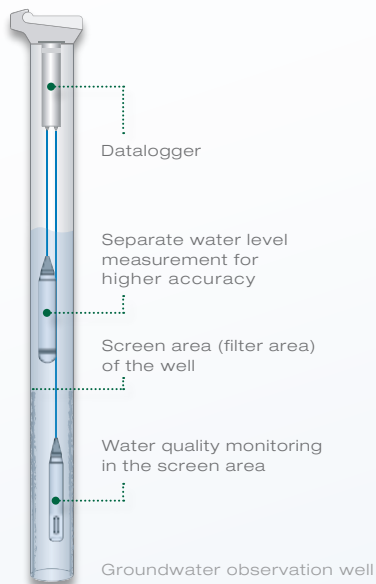
- In cause of the additional connection possibility for a flow meter the Datalogger is excellent suitable for pumping tests and aquifer testing



• Datalogger type 540



# Datalogger type 540



## Special features

- Power supply for up to 10 years of operation or 2,000,000 measurements
- Compensation of the barometric fluctuation for water level measurements is already integrated into the standard version
- No drying cartridge necessary
- Non-volatile Flash memory 4 Mb for up to about 520,000 measurements
- Usual, simple operation and installation
- Flexibility in connection of measuring probes is provided
- Maintenance-free

## Description

The Datalogger type 540 is suitable for use in groundwater wells, observation wells, in surface water such as lakes or rivers and tanks to measure the water level and the water quality. Alternatively, the Datalogger is also in a switch cabinet version with external power supply available. Thanks to its universal operation and the possibility of connecting several measuring probes, additionally with a flow meter, this unit is ideally suited for pumping tests.

For long-term analyses, the unit operates likewise with an integrated lithium battery, which is designed for a guaranteed operational period of ten years or 2,000,000 measurements.

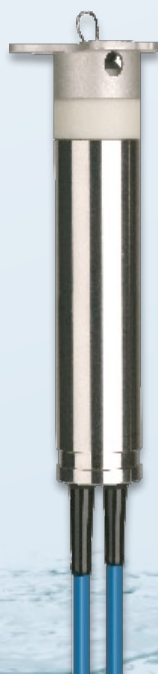


## Areas of application

- Suitable for pumping tests by the optional possibility of connecting a flow meter
- Universal applications
- Measuring of various horizontal layers due to the possibility of connecting several HT measuring probes

## Advantages

- Installation in boreholes from 1¼"
- Simple operation and handling
- Sophisticated unit in the standard version
- Universal use due to the possibility of exchanging measuring probes for a variety of applications

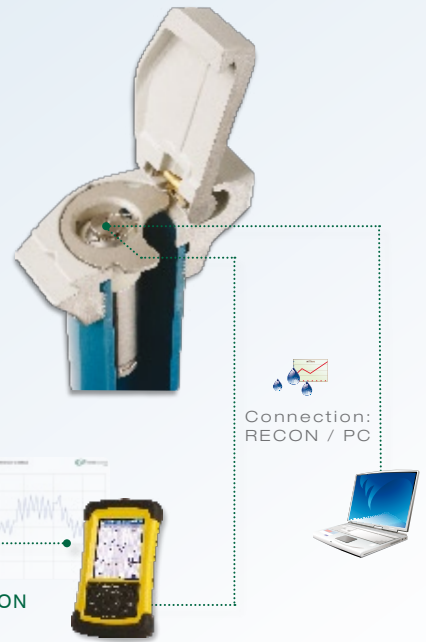






## ■ Operation

The parameterization and the data download from the instrument can be realized by every PC / Notebook or alternatively by the Pocket-PC RECON. The data are available as usual in an ASCII file, or optionally in Excel format. Special formats are configured by our software department.



Pocket-PC RECON

The ideal and mobile companion for all HT Dataloggers. It's able for the whole parametrization like easy data downloading and data handling.

## ■ Connectable Probes

### Type V550W

Pressure Probe for: ✓ **Water level**  
✓ **Water temperature**



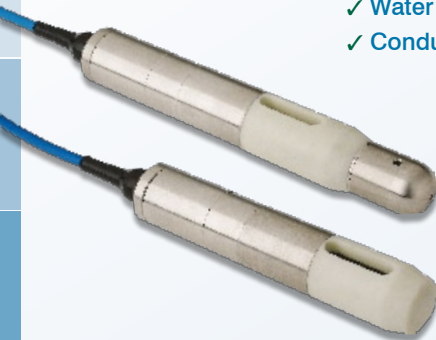
- Digital transmission to the Datalogger
- Made of stainless steel 316 Ti
- Ø 24 mm, length 120 mm (special version: 22 mm)
- Selectable measurement range up to 300 m water column
- Compensation of the barometric fluctuation
- Temperature compensated area of the probe is between 0 – 50 °C
- Accuracy: 0.1 % FS

#### Optional temperature measurement:

- Measurement range: 0...50 °C / optional range extension from 0 to +70 °C
- Accuracy: 0.1 °C

### Type V550MP

Pressure Probe for: ✓ **Water level**  
✓ **Water temperature**  
✓ **Conductivity and salinity**

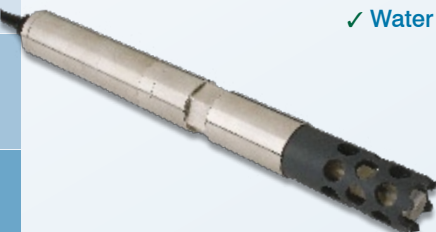


- Conductivity sensor is integrated in the probe housing
- Ø 30 mm, length 175 mm
- 4-electrode principle
- The technical data for the measurement of water level and temperature are the same as above
- Measuring range: 0 - 200 mS/cm
- Automatic switch of measurement ranges
- Accuracy: 1% of current value
- The user can configure the compensation of the conductivity value to the reference temperature of 25 °C

..... Type **V550L** (equal type V550MP, without water level measurement)

### Type V550P

Probe for: ✓ **pH**  
✓ **Water temperature**



- Dimensions: Ø 29.5 mm, length 250 mm
- Measuring range pH: 2-14 pH
- Accuracy pH: 0.02 pH
- Measuring range water temperature: 0 to 50 °C
- Accuracy of water temperature: 0.1 °C
- Electronic part includes a 16 bit AD-converter
- max. water column above the sensor: 100 m = 10 bar

## Vented cable for pressure probes

6 mm diameter; UV-resistant PUR coating, with internal air tubing for the compensation of barometric fluctuations; Kevlar strengthen against dilation of length; including braided shielding for the highest possible protection against interference, for example by parallel operation of pumps.



By using HT well caps and intermediate rings, the Datalogger is unable falling down in the borehole



## Technical Data

■ Dimensions	
Diameter	Ø 34 mm
Length	235 mm
■ Data storage	
Data storage	4 MB for approx. 520,000 measurements
Memory type	non-volatile Flash memory for highest possible data security; („non-volatile“ = no loss of data during voltage drop or power failure)
■ Interface (Output to Notebook / PC)	
Serial interface RS 232; connected via waterproofed and secure plug connection	
■ Operating conditions	
Operating temperature	-25 °C... +60 °C
Storage temperature	+5 °C... +30 °C (recommended for increased battery life)
Power supply	Integrated lithium battery for 2,000,000 measurements or 10 years of operation * (* not when connected connected to a flow meter)
■ Fixing at the borehole	
From 1¼" via HT Well Cap; from 2" with possibility of check measurements- taken by a Water Meter- without removal of the Datalogger; from 3 inch using an intermediate ring	
■ Optional fixing	
Using a logger hook of stainless steel; applicable when no well cap for closure of the observation well is available, or could be installed on a temporary basis, example during pumping tests	

## Protection class

IP 68; permanently safe from flooding up to 3 m column of water

## Materials

High-grade stainless steel 316 Ti; POM

## Interfaces (Input for measuring probes / IDM etc.)

Standard version	1 x RS 485 / mod-bus for connection of a measuring probe
or optionally	1 x analogue input 4..20 milliamps, and meter for the connection of a flow meter
Max. configuration	2 x RS 485 / mod-bus and additionally 1 x analogue input 4..20 milliamps and counter

## Plug

Alternatively, a waterproof connector for disconnecting the probes including the cable is available

## Data format

The stored measured values are downloaded in the ASCII and Excel format. Special formats for the compatibility to already existing databases are also available, or can be accommodated, as required

## Compensation of the barometric fluctuation

By means of a special breathable filter with short reaction terms of < 1 second, the instrument is protected against the infiltration of moisture and flooding until 3 m water column

Changes in performance features and technical data are permitted.

## Additional operating convenience by easy software control

- Pre-selection of up to 10 different measuring intervals
- Report und logbook function
- Incident measuring / hysteresis
- Averaging

