Water Level Measurement
OTT Orpheus Mini – Pressure probe
with integrated temperature sensor
and data logger

OTT Orpheus Mini

Ground water data logger

The ground water data logger OTT Orpheus Mini has been designed for the reliable monitoring and storage of water level and temperature. The main application of OTT Orpheus Mini is the installation in ground water pipes and wells. In addition, the application in open waters and tanks is possible.

OTT Orpheus Mini is equipped with a rugged, ceramic-capacitive measuring cell and a precise temperature sensor. A data logger, which can be configured individually, stores and manages the monitored measured values in a 4 MB non-volatile memory (corresponds to approx. 500,000 measured values). The power supply of the OTT Orpheus Mini as well as the connexion for downloading data and start-up are provided by the communication unit.

The infrared interface allows the data to be conveniently read out or transferred from the device with a notebook or a Pocket PC. 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 Orpheus Mini can easily be equipped for data transmission using GSM/SMS or GPRS.

Quantitative
Hydrology

Reliable, rugged und easy-to-use
OTT Orpheus Mini

Highly durable ceramic measuring cell

The groundwater data logger OTT Orpheus Mini features a ceramic capacitive measuring cell. Rugged and long-term stable: Crucial advantages compared to piezo-resistive standard measuring metal membrane sensors.

Simple operating concept with Pocket PC or notebook

— Downloading data and parametrization conveniently via infrared interface (IrDA)
— Set operating parameters at a glance: Carry out the complete set-up of a ground water measuring site in just one screen window

Features & Benefits

— Easy installation in observation wells of 1" diameter and larger by adapter plates or suspension bracket
— Power supply can optionally be provided by Lithium or Alkaline batteries
— The batteries can easily be changed on-site
— Longitudinally stable pressure probe cable by Cevlar core
— Potted, hermetically sealed pressure probe
— Saltwater resistant casing material
— Easily equipped for data transmission using GSM/GPRS/SMS

Technical data

Measuring ranges, pressure
0 … 4 m, 0 … 10 m, 0 … 20 m, 0 … 40 m, 0 … 100 m water column

Resolution, pressure
0.01 % FS

Accuracy, pressure
±0.05 % FS

Longterm stability
±0.1 % / year FS

Temperature-compensated working range
- 5 °C … + 45 °C (ice-free)

Measuring range, temperature
- 25 °C … + 70 °C (ice-free)

Resolution, temperature
0.1 °C

Accuracy, temperature
±0.5 °C; optional 0.1 °C

Power supply
3 x 1.5 V LR6/FR6-cells, Alkaline or Lithium type

Lifetime (at 1 h sample interval)
- With Lithium batteries min. 5 years
- With Alkaline batteries min. 1.5 years

Interface
Infrared (IrDA)

Storage temperature
- 40 °C … + 85 °C

Memory
4 MB

Number of measured values
Approx. 500,000

Sample / Storage interval
1 second … 24 hours

Installable in observation wells
- With adapter plates for OTT top caps 1", 2", 4", 6"
- With suspension bracket ≥ 1"

Dimensions L x Ø
- Communication unit 400 mm x 22 mm
- Pressure probe 195 mm x 22 mm

System length
(cable length incl. communication unit/pressure probe)
1.5 … 200 m ± 0.25 m

Weight
- Communication unit (incl. batteries) approx. 0.410 kg
- Pressure probe approx. 0.300 kg

Material of casing
ABS, stainless steel (DIN 1.4539, 904L)

Type of protection
- Communication unit IP 67 (immersion depth max. 2 m, duration of immersion max. 24 h)
- Pressure probe IP 68

EMV limits
IEC61326/EN61326 are complied with