

## Technical Data Logger PCE-PHD 1

### PCE-PHD 1 Data Logger

#### Includes a pH electrode and a conductivity electrode

The PCE-PHD 1 Data Logger is a portable, easy-to-use measuring device with multiple capabilities for inspecting water quality. Offering extraordinary precision at an affordable price, the PCE-PHD 1 Data Logger is used for laboratory and in situ testing of the pH value, redox, conductivity, salt content, oxygen level and temperature of water. Three-point calibration and automatic temperature compensation guarantee a high level of accuracy even with variable temperature measurements. The PCE-PHD 1 Data Logger comes with both a pH electrode and a conductivity electrode. Additional electrodes are available for purchase separately, as is an optional mains adapter for power and a software kit with an RS-232 cable.

The PCE-PHD 1 Data Logger acts as a real-time data logger. All values can be stored directly on the included SD card in Microsoft Excel format or transferred to a PC by means of the RS-232 port. Thus, no additional software is required for evaluation of the data.

#### Features

- Automatic calibration
- Low battery indication
- Adjustable measurement rate
- Manual or automatic temperature compensation
- Compatibility with SD cards up to 16 GB
- Electrodes for pH and conductivity
- BNC connector

#### pH measurement

Measurement ranges

Resolution 0,00 ... 14,00 pH

Accuracy 0,01 pH

Calibration  $\pm 0,02$  pH + 2 digits

Temperature compensation 3 points (pH 4, pH 7 y pH 10)

automatic with additional temperature sensor (0 ... 60°C) o  
manual (0 ... 100 °C)

## Conductivity

Measurement ranges	0 ... 200,0 $\mu$ S/cm 0,2 ... 2,000 mS/cm 2 ... 20,00 mS/cm 20 ... 200 mS/cm
Resolution	0,01 $\mu$ S/cm 0,001 mS/cm 0,01 mS/cm 0,1 mS/cm
Accuracy	$\pm 2$ % of the measurement range + 1 digit
Calibration	1413 mS/cm
Temperature compensation	automatic (0 ... 60 °C)

## TDS

Measurement range	0 ... 132 ppm 132 ... 1320 ppm 1320 ... 13200 ppm 13200 ... 132000 ppm
Resolution	0,1 ppm 1 ppm 10 ppm 100 ppm
Accuracy	$\pm 2$ % of the measurement range + 1 digit
Temperature compensation	automatic (0 ... 60 °C)

## Salt content

Measurement range	0 ... 12 % (of weight)
Resolution	0,01 %
Accuracy	$\pm 0,5$ % of the measurement range
Temperature compensation	automatic (0 ... 60 °C)

## Oxygen

Measurement range	0 ... 20 mg/l (in water) 0 ... 100 % (in air) 0 ... 50 °C
Resolution	0,1 mg/l 0,1 % 0,1 °C
Accuracy	$\pm 0,4$ mg/l $\pm 0,7$ % $\pm 0,8$ °C

Calibration	in the air
Temperature compensation	automatic (0 ... 50 °C)

### Temperature

Measurement range	0 ... 60 °C
Resolution	0,1 °C
Accuracy	±0,8 °C
Temperature compensation	automatic (0 ... 60 °C)

### Technical specifications

Measurement rate	1 second up to 9 hours
Display	LCD
Memory	SD card (up to 16 GB) a 2 GB card included in the delivery
Interface	RS-232
Software	optional
Power supply	6 x 1,5 V AA batteries (optional mains adapter)
Operating conditions	0 ... +50 °C / <85 % H.r.
Dimensions	177 x 68 x 45 mm
Weight	490 g

### Delivery contents

- 1 x PCE-PHD 1 Data Logger
- 1 x pH electrode
- 1 x conductivity electrode
- 1 x SD memory card
- 6 x 1.5 V AA batteries
- 1 x user manual