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 ±0,02 pH + 2 digits
Temperature compensation 3 points (pH 4, pH 7 y pH 10) automatic with additional temperature sensor (0 ... 60ºC) or manual (0 ... 100 ºC)
### Conductivity

| Measurement ranges | 0 ... 200,0 µS/cm  
|                   | 0,2 ... 2,000 mS/cm  
|                   | 2 ... 20,00 mS/cm  
|                   | 20 ... 200 mS/cm  
| Resolution        | 0,01 µS/cm  
|                   | 0,001 mS/cm  
|                   | 0,01 mS/cm  
|                   | 0,1 mS/cm  
| Accuracy          | ±2 % of the measurement range + 1 digit  
| Calibration       | 1413 mS/cm  
| Temperature compensation | automatic (0 ... 60 ºC)  

### 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         | ±2 % of the measurement range + 1 digit  
| Temperature compensation | automatic (0 ... 60 ºC)  

### Salt content

| Measurement range | 0 ... 12 % (of weight)  
| Resolution       | 0,01 %  
| Accuracy         | ±0,5 % of the measurement range  
| Temperature compensation | automatic (0 ... 60 ºC)  

### Oxygen

| Measurement range | 0 ... 20 mg/l (in water)  
|                  | 0 ... 100 % (in air)  
|                  | 0 ... 50 ºC  
| Resolution       | 0,1 mg/l  
|                  | 0,1 %  
|                  | 0,1 ºC  
| Accuracy         | ±0,4 mg/l  
|                  | ±0,7 %  
|                  | ±0,8 ºC  

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

**Temperature**

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

**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 ºC / <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