HYGROMETER

PCE-THD 50



- **Measuring range -20 ... 60 °C / -4 ... 140 °F**
- **Temperature, humidity, dew point**
- **Backlit LC display**
- **Micro USB interface**
- **Rechargeable battery**
- **Data memory for 32,000 readings**
- **Wet bulb temperature**
- **Optionally with ISO calibration certificate**

The hygrometer is the ideal measuring device to check the climatic conditions in, for example, warehouses, production halls or greenhouses. The hygrometer can measure the ambient temperature and humidity. Temperatures between -20 ... 60 °C (-4 ... 140 °F) can be measured reliably and quickly by the hygrometer. In addition, the dew point and wet bulb temperature is calculated and displayed by the hygrometer. In addition, any type K thermocouple can be connected to the hygrometer in a temperature range of -100 ... 1372 °C (-148 ... 2501 °F). As soon as the connected thermocouple has been recognized, the temperature display automatically switches from the hygrometer to the thermocouple.

Measured values can be recorded with the data logger function of the hygrometer. The large memory of 32,000 measuring points in the hygrometer allows recording of measured values over a long period of time. After data logging, all logged measuring points can be read out and analyzed via the micro-USB interface of the hygrometer and the free software. The data logged by the hygrometer can be exported in CSV file format for further processing.

A 3.7 V Li-ion battery is installed in the hygrometer to enable mobile use. This battery can be recharged via the micro-USB interface on the hygrometer.

Specification

Wet bulb temperature	
Measuring range	-20 ... +60 °C
Resolution	0,1 °C
Accuracy	±0.5°C @ 0 ... 45°C / ±1.0°C in other ranges
Wet bulb temperature	
Measuring range	-4 ... +140 °F
Resolution	0,018 °F
Accuracy	±1.0°F @ 32 ... 113°F, ±2.0°F in other ranges
Type K temperature	
Measuring range	-100 ... +1372 °C
Resolution	0,01 °C
Accuracy	±(1% ±1°C / ±1.8°F)
Type K temperature	
Measuring range	-148 ... +2501 °F
Resolution	0,018 °F
Accuracy	±(1% ±1.8°F)
Dew point	
Measuring range	-50 ... +60 °C
Resolution	0,1 °C
Accuracy	±(1% ±1°C / 1.8°F)
Dew point	
Measuring range	58 ... 140 °F
Resolution	0,18 °F
Accuracy	1.8°F
Relative humidity	
Measuring range	0 ... 100 %
Resolution	0,1 %
Accuracy	±2.2 per cent relative humidity (10 to 90 per cent relative humidity) / ±3.2 per cent relative humidity (<10, >90 per cent relative humidity) @ 23°C (73.4 °F)
Temperature	
Measuring range	-20 ... +60 °C
Resolution	0,01 °C
Accuracy	±0.5°C @ 0 ... 45°C / ±1.0°C in other ranges
Temperature	
Measuring range	-4 ... +140 °F
Resolution	0,018 °F
Accuracy	±1.0°F @ 32 ... 113°F / ±2.0°F in other ranges

General technical data	
Measuring functions	MIN, MAX, HOLD
Display type	LCD with backlight
Measuring rate	3 Hz
Storage medium	Internal memory
Storage capacity	32000 Measurements
Memory capacity (additional information)	99 measurement points can only be read on the measuring device, 32,000 measurement points can be read on a PC
Interface	Micro-USB
Response time	10 s
Automatic power-off	10 min
Menu language	English, English (GB)
Protection class (device)	IP20
Power supply	5 V DC
(Rechargeable) battery	1 x 3,7 V internal , Lithium-ion polymer battery
Capacity	2500 mAh
Operating conditions	0 ... 40 °C , 0 ... 80 % RH
Storage conditions	-10 ... 60 °C , 0 ... 80 % RH
Dimensions (L x W x H)	162 x 88 x 32 mm
Weight	248 g

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