Environmental Tester

PCE-WB 20SD

PCE-WB 20SD Environmental Meter
Multipurpose real-time or data-recording temperature and humidity measuring device

PCE-WB 20SD is a data-logging environmental meter used to measure indoor / outdoor wet bulb globe temperature (WBGT), black globe temperature (TG), wet bulb temperature (WB), dew point temperature, air temperature (TA) and relative humidity. Thus, this multipurpose data-recording device is an ideal tool for evaluating heat stress risks in different work environments. The device is also used by indoor air quality (IAQ) inspection professionals to assess the performance of heating, ventilation and air conditioning (HVAC) systems.

Featuring a large and easy-to-read LCD screen with green backlight, this data-recording heat index meter has a programmable WBGT alarm setting with audible and visual alerts to notify workers of unsafe conditions in the workplace or at the job site in real time. PCE-WB 20SD offers manual (push-button) or automatic (adjustable 1 ... 3600 sec) sampling and accommodates SD memory cards from 1 ... 16 GB.

- For real-time or long-term temperature and humidity measurement applications
- Temperature can be displayed in metric or imperial units, i.e., degrees Celsius (°C) or degrees Fahrenheit (°F)
- Maximum, minimum, data hold and automatic power off (can be disabled) functions
- Programmable WBGT alarm setting with audible and visual alerts
- Manual (push-button) or automatic (adjustable 1 ... 3600 sec) sampling
- SD card memory (1 ... 16 GB) allows for quick and easy data transfer to a PC

Technical specifications
Wet Bulb Globe Temperature (WBGT)

Measurement range	Indoors: 0 ... +59 °C (32 ... 138 °F) Outdoors: 0 ... +56 °C (32 ... 132 °F)
Accuracy indoors	± 1 °C (± 1.5 °F) from +15 ... +59 °C (59 ... 138 °F) ± 1.5 °C (± 2.7 °F) other temperature ranges
Accuracy outdoors	± 1.5 °C (± 2.7 °F) from +15 ... +56 °C (59 ... 132 °F) ± 2 °C (± 3.6 °F) other temperature ranges

Air Temperature (TA)

Measurement range	0 ... +50 °C
Resolution	0.1 °C
Accuracy	± 0.6 °C

Black-Globe Temperature

Measuring range	0 ... +80 °C
Resolution	0.1 °C
Accuracy	± 0.6 °C

Humidity

Measurement range	5 ... 95 % R.H.
Resolution	0.1 % R.H.
Accuracy	>70 % RH: ± (3 % read value + 1 % RH) < 70 % RH: ± 3 % RH

Dew Point Temperature

Measuring range	-25.3 ... +48.9 °C
Resolution	0.1 °C

Wet Bulb Temperature

Measuring range	-21.6 ... +50 °C
Resolution	0.1 °C

General Technical Specifications

WBGT formula	Inside /outdoors and no sun: WBGT= (0.7 x WB) + (0.3 x TG) Outdoors and sun: WBGT=(0.7 x WB) + (0.2 x TG) + (0.1 x TA)
Data storage intervals	Automatically: every 1 ... 3600 seconds Manually: with every key press
Memory Card	SD memory card 1 ... 16 GB
Interface	RS232 / USB
Display	LCD with background lights (52 x 38 mm)
Operation Temperature	0 ... +50 °C
Environmental Humidity	<85 % R.H.
Voltage Supply	6 x 1.5 V AA batteries or 9 V Adapter
Power Consumption	DC 14 mA at standard operation DC 37 mA with data storage and without Display lights on
Weight	489 g
Dimensions	Device: 177 x 68 x 445 mm Bulb: Ø 75 mm

Delivery content
1 x PCE-WB 20 SD environmental meter
1 x SD card memory
1 x SD card reader
1 x user manual
1 x carrying case

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