
HEAT INDEX WBGT METER

Model: WBGT-2009

ISO-9001, CE, IEC1010

Soft carrying case CA-20. included

The Art of Measurement
HEAT INDEX WBGT METER

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FEATURES

- Introduction : WBGT (wet-bulb globe temperature) was developed as a monitoring basis at US military training camps and became widespread for the use in workplaces and sports situations. It is suggested in the international standard ISO 7243, OSHA (US Occupation Safety), Japaan Society for Occupational Health and the SMA (Sports Medicine Australia) in establishing the permissible heat exposure limits in health, sports and other physical activities.

- Measurement : WBGT value (Indoor/Outdoor Wet bulb globe temperature), Black globe temperature, Humidity, Air temperature, Wet bulb temperature, Dew point Temp.

- Adjustable WBGT alarm setting, if the WBGT value over the alarm threshold, the buzzer will sound along with the flashing Display.

- Using to control and monitor of physical activity in hot environment to limit the danger of heat related injuries.

- Globe temperature measurement use the Pt sensor, high accuracy.

- Fast humidity measuring response time.

- Direct measurement of the radiation effect with a brass black ball in 75 mm dia.

- Sensor protecting mechanism.

- Setting * Auto power OFF management (Outdoor and full sun) (90)

- Included * Soft carrying case, CA-20,...........1 PC

- Accessories * Black brass ball (with sensor)..........1 PC

- Optional * AC to DC 9V adapter.

- Accessories * USB cable, USB-01.

- Data acquisition software, SW-UB01-WIN.

- Excel data acquisition software, SW-E802.

- * Hard carrying case, CA-08, Size : 370 x 310 x 115 mm.

ELECTRICAL SPECIFICATIONS (23± 5℃)

- Wet bulb temperature (WBGT) Range C Indoor : ± 1℃ (15 to 59 ℃)

- °F Indoor : ± 1.8°F (59 to 138 ℉)

- Black globe (TG) Range C Indoor : ± 1.5 ℃ (15 to 56 ℃)

- °F Indoor : ± 2.7°F (59 to 132 ℉)

- Black brass ball (WBGT) Range C Indoor : ± 1℃ (15 to 59 ℃)

- °F Indoor : ± 1.8°F (59 to 138 ℉)

- * Connect the optional USB cable USB-01 will get the USB plug.

- * Connect the optional RS232 cable @ 15 to 40 Kbps ECPB-02 will get the RS232 plug.

- Data Hold Freeze the display reading.

- Memory Recall Maximum & Minimum value.

- Sampling Time of Display Approx. 1 second.

- Data Output RS 232/USB PC computer interface.

- Connect the optional RS232 cable UPCB-02 will get the RS232 plug.

- Connect the optional USB cable USB-01 will get the USB plug.

- Operating Temperature Less than 85% R.H.

- Operating Humidity ±0.6 ℃

- @ 23 to 40 ℃

- ±1.1 ℉

- Power Supply * Alkaline or heavy duty DC 1.5 V battery (UM3, AA) x 6 PCs, or equivalent.

- * DC 9V adapter input. (AC/DC power adapter is optional).

- Humidity Range ± 95 % R.H.

- Power Current * if LCD Backlight is off, the power consumption will be approx. 5 mA.

- * if LCD Backlight is on, the power consumption will be approx. 11 mA.

- Weight 899 ± 0.58 lb

- Dimension Meter 177 x 68 x 45 mm

- Black brass (7.0 x 2.7 x 1.9 inch)

- ball Round, 75 mm dia

- Standard Accessories * Instruction manual.....................1 PC

- Black brass ball (with sensor)...........1 PC

- Included * Soft carrying case, CA-20,..................1 PC

Wet bulb Temp.

- ◦C Range 21.6 ◦C to 50.0 ◦C

- Resolution 0.1 ◦C

- ◦F Range 6.9 ◦F to 122.0 ◦F

- Resolution 0.1 ◦F

Recommended to heat exposure level for working and physical activity. (Permissible heat exposure threshold limit)

- Work/rest regimen

- Light Moderate Heavy

- Continuous work 30℃ 26.7℃ 25℃

- 75% work, 25% rest 30.6℃ 28℃ 25.9℃

- 50% work, 50% rest 31.4℃ 29.4℃ 27.9℃

- 25% work, 75% rest 31.2℃ 31.1℃ 30℃

- Source : AGGIH 1992 (The American Conference of Governmental Industrial Hygienists)

WBGT INDEX and PHYSICAL EXERCISE

- WBGT Flag Activity Intensity

- < 26.7℃ Normal activity.

- 26.7℃ to 29.4℃ Light Caution should be taken.

- 29.5℃ to 32℃ Moderate Intense activity for new and unacclimatized persons should be curtailed.

- > 32℃ Red Intense exercise must be curtailed for those with less than 12 weeks training in hot weather. Be on high alert

- 80 to 84.9℃ Green Descretion is required.

- 85 to 87.9℃ Yellow Intense activity is required.

- ≥ 88.0℃ Red Intense exercise must be curtailed for those with less than 12 weeks training in hot weather. Be on high alert

- WBGT INDEX and PHYSICAL EXERCISE

Dew Point Temp.

- ◦C Range 25.3 ◦C to 48.9 ◦C

- Resolution 0.1 ◦C

- ◦F Range 13.5 ◦F to 120.1 ◦F

- Resolution 0.1 ◦F

* Appearance and specifications listed in this brochure are subject to change without notice.

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