

Tenmars TM-188D Heat Stress WBGT Meter with Datalogger



SKU: TENTM188DWH
Manufacture warranty period: 12 months

The HEAT STRESS WBGT METER is quick-response with accurate measurement for the effects of temperature, humidity, and direct or radiant sunlight.

This instrument is ideal for the athletic trainers, military, occupational (Industrial) hygienists, outdoor worker and the sports medicine specialists; and it's designed according to the regulations mentioned below.

In order to measure the WBGT index, you should refer to the following regulations:

ISO7243: Hot environments. Estimation of the heat stress on working man.

ISO7726: Ergonomics of the thermal environment-instruments for measuring physical quantities.

OSHA: Occupational Safety and Health Administration.

JISHA: Japan Industrial Safety and Health Association.

Product Description

- Quick-response capacitance sensor, accurate measurement for wet bulb globe temperature(WBGT), black globe temperature(TG), humidity(%RH), air temperature(TA), wet bulb(WET) and dew point(DEW).
- Max/Min and data hold.
- Low battery indication.
- LCD display with LED backlight.
- Viewing data records.
- Switch the temperature unit to °C or °F.
- Brass black ball in 50mm diameter.
- WBGT alarm setting.
- Auto power off with disable function.
- Data logging capacity: 12000 records, USB PC serial interface.
- Sampling interval: Max 24 hours; Min 1 Second.



Specifications

- Wet bulb globe temperature (WBGT):
 - indoor & Outdoor without sunlight: $WBGT = (0.7 \times WET) + (0.3 \times TG)$
 - Range: 0~59.0°C / 32.0~ 138.0°F
 - Resolution: 0.1°C / 0.1°F
 - Accuracy@15~40°C: $\pm 1.0^\circ\text{C}$ / $\pm 1.8^\circ\text{F}$
 - Outdoor With sunlight: $WBGT = (0.7 \times WET) + (0.2 \times TG) + (0.1 \times TA)$
 - Range: 0~56.0°C / 32.0~ 132.0°F
 - Resolution: 0.1°C / 0.1°F
 - Accuracy: $\pm 1.5^\circ\text{C}$ / $\pm 2.7^\circ\text{F}$
- Air temperature (TA):
 - Range: 0~50.0°C / 32.0~122.0°F
 - Resolution: 0.1°C / 0.1°F
 - Accuracy @15~40°C: $\pm 0.8^\circ\text{C}$ / $\pm 1.5^\circ\text{F}$
- Black globe temperature (TG):
 - Range: 0~80.0°C / 32.0~176.0°F
 - Resolution: 0.1°C / 0.1°F
 - Accuracy @15~40°C: $\pm 0.6^\circ\text{C}$ / $\pm 1.1^\circ\text{F}$
- Relative Humidity (%RH):
 - Range: 1%~99%
 - Resolution: 0.1%
 - Accuracy: $\pm 3.0\%\text{RH}$ (20~80%) / $\pm 5.0\%\text{RH}$ (80%)
- Dew point temperature (DEW):
 - Range: -35.3~48.9°C / -31.5~120.1°F
 - Resolution: 0.1°C / 0.1°F
 - The value is calculated from the RH and Air temperature.
- Wet bulb temperature (WET):
 - Range: -21.6~50.0°C / -6.9~122.0°F
 - Resolution: 0.1°C / 0.1°F
 - The value is calculated from the RH and air temperature.

- Dimension: 300 x 70 x 50mm (L x W x H)
- Weight: 220g. (Without batteries).
- Power supply: 9V battery or AC100~240V DC 9V/ 0.5A(9mm).
- Battery life: 200 hours.
- Operating Temperature & Humidity: 0°C to +50°C.
- Storage temperature & humidity: -10°C to +50°C .
- Data output: USB PC serial interface, 12000 records.
- LCD: 52mm(W)x36mm(L) monochrome LCD and backlight.



Package included:

- TM-188D Meter
- User's manual x 1
- USB cable x 1
- AC100~240V to DC9V/0.5A (9mm) x 1
- CD software disk x 1
- 9V battery x 1
- Carrying case x 1

Package Dimension:

- Size: 38 x 23 x 13 cm
- Weight: 1.6 KG