

Heat Stress WBGT Meter

TM-188 / TM-188D(Datalogger)

Features

- ◆ WBGT (Wet Bulb Globe Temperature) meter measures heat stress in the field.
- ◆ Dual LCD display with the maximum reading of 9999.
- ◆ Accurate measurement for Wet Bulb Globe Temperature (WBGT), black globe temperature (TG), humidity (%RH), air temperature (TA), wet bulb (WET) and dew point (DEW) with fast response time.
- ◆ Max /Min and data hold.
- ◆ Selectable units of °C or °F.
- ◆ Auto power off with disable function.
- ◆ Data logging capacity:12000 records (TM-188D).
- ◆ Sampling interval: Max 24 hours; Min 1 second (TM-188D).
- ◆ WBGT alarm setting.
- ◆ LCD display with LED backlit.
- ◆ Brass black ball in 50 mm diameter.
- ◆ USB PC serial interface(TM-188D).
- ◆ Manual data memory:50 records.
- ◆ Low battery indication.
- ◆ Power :006P 9V battery
External AC 100V~240V to DC 9V/0.5A (TM-188D)
- ◆ Tripod threads.

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

- ◆ ISO 7243:hot environments. Estimation of the heat stress on working man
- ◆ ISO 7726:ergonomics of the thermal environment-instruments for measuring physical quantities
- ◆ OSHA: Occupational Safety and Health Administration
- ◆ JISHA: Japan Industrial Safety and Health Association

Specifications

Wet Bulb Globe Temperature (WBGT)

Unit	Range	Resolution	Accuracy @15~40°C
indoor&Outdoor without sunlight	°C 0~59.0	0.1	±1.0
	°F 32.0~138.0	0.1	±1.8
Outdoor With sunlight	°C 0~56.0	0.1	±1.5
	°F 32.0~132.0	0.1	±2.7

※ indoor & outdoor without sunlight:WBGT = (0.7×WET)+(0.3×TG)
Outdoor with sunlight:WBGT=(0.7×WET)+(0.2×TG)+(0.1×TA)

Air Temperature (TA)

Unit	Range	Resolution	Accuracy @15~40°C
°C	0 ~ 50.0	0.1	±0.8
°F	32.0 ~ 122.0	0.1	±1.5

Black Globe Temperature (TG)

Unit	Range	Resolution	Accuracy @15~40°C
°C	0 ~ 80.0	0.1	±0.6
°F	32.0~176.0	0.1	±1.1

Humidity (%RH)

Measurement Range	1%~99%
Accuracy	±3.0%RH(20~80%)@25°C ±5.0%RH(<20 , >80%)@25°C
Resolution	0.1

Dew point temperature (DEW)

Unit	Range	Resolution
°C	-35.3~48.9	0.1
°F	-31.5~120.1	0.1

The value is calculated from the RH and Air temperature

Wet bulb temperature (WET)

Unit	Range	Resolution
°C	-21.6~50.0	0.1
°F	-6.9~122.0	0.1

The value is calculated from the RH and Air temptemperature

