

TM-188 TM-188D (DATALOGGER)

HEAT STRESS WBGT METER

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.
- LCD display with LED backlit.
- Selectable units of °C and °F.
- Brass black ball in 50mm diameter.
- Auto power off with disable function.
- USB PC serial interface. (TM-188D)
- Data logging capacity : 12000 records. (TM-188D)
- Sampling interval : Max 24 hours; Min 1 Second. (TM-188D)
- Low battery indication "E+".
- Manual Data Memory : 50 records.
- WBGT alarm setting.
- Power : 006P 9V battery.
- External : AC100V~240V to DC 9V/0.5A.
- Tripod Threads.

In order to measure the WBGT index, please 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.

Specifications: (23±5°C)

Wet Bulb Globe Temperature (WBGT)				
Unit		Range	Resolution	Accuracy@15~40°C
Indoor & Outdoor without sunlight	°C	0°C~59.0°C	0.1°C	±1.0°C
	°F	32.0°F~138.0°F	0.1°F	±1.8°F
Outdoor With sunlight	°C	00°C~56.0°C	0.1°C	±1.5°C
	°F	32.0°F~132.0°F	0.1°F	±2.7°F

※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°C~50.0°C	0.1°C	±0.8°C
°F	31°F~122.0°F	0.1°F	±1.5°F

Black Globe Temperature (TG)			
Unit	Range	Resolution	Accuracy@15~40°C
°C	0°C~80.0°C	0.1°C	±0.6°C
°F	32°F~176.0°F	0.1°F	±1.1°F

Relative Humidity (%RH)	
Range	1%-99%
Accuracy	±3.0%RH(20%~80%) ±5.0%RH(<20%, >80%)
Resolution	0.1%
Response time	<4sec

Dew Point Temperature (DEW)		
Unit	Range	Resolution
°C	-35.3°C~48.9°C	0.1°C
°F	-31.5°F~120.1°F	0.1°F

The value is calculated from the RH and Air Temp.

Wet Bulb Temperature (WET)		
Unit	Range	Resolution
°C	-21.6°C~50.0°C	0.1°C
°F	-6.9°F~122.0°F	0.1°F

The value is calculated from the RH and Air Temp.

