

TM-188D HEAT STRESS WBGT METER



- 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 (TM-188D).
- Sampling interval: Max 24 hours; Min 1 Second (TM-188D).

Require

Application

TM-188

TM-188D (with datalogger)

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.

Specification

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	0°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=(0.7xWET)+(0.3xTG)				
Outdoor with sunlight : WBGT=(0.7xWET)+(0.2xTG)+(0.1xTA)				

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	<4 sec

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		