

Wet and Dry Humidity (WT20)

Features

- Semi-conductor sensing element
- Waterproof, aluminium sheathed tip
- Robust PVC housing
- Fully weatherproof

Description

The TA10 series temperature sensors are electronic sensors designed to measure air temperature. Two sensors can be used to measure air temperature and relative humidity using the wet and dry bulb method. Improved design provides for faster and more accurate temperature sensing. Temperature stability of the new design allows realistic temperature measurement accuracy's of $\pm 0.2^{\circ}\text{C}$ over the range.

The sensing element consists of a semiconductor integrated circuit which provides an output voltage proportional to the ambient temperature. The relationship between temperature and output voltage is extremely linear due to the high internal gain of the integrated circuit. For air temperature and/or humidity readings using the wet/dry bulb method, we recommend that the wet and dry bulb sensors are located inside a mini-temperature screen this screen is preferably located underneath the logger shelf on our portable instrument stand.

Envirodata supplies a water tank assembly suitable for wet/dry humidity.



Two Temperature sensor as shown,
One Wet & one Dry make up the
Wet & Dry Humidity



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Specifications

Sensing Element:

Semiconductor I.C.

Measurement Units:

Degrees Celsius (°C)

Operating range:

20°C to +60°C

Resolution:

0.1°C

Accuracy:

±0.3°C over operating range

Drift:

<0.2°C per year

Calibration Accuracy:

< ±0.2°C at 0°C and 30°C

Response time:

<5 mins in air; 30 secs in liquid

Calibration Method:

Two point calibration (gain and offset controls). Final calibration in ice-water.

Reliability:

Typically five (5) years operation possible before overhaul.

Housing:Black:

High impact PVC

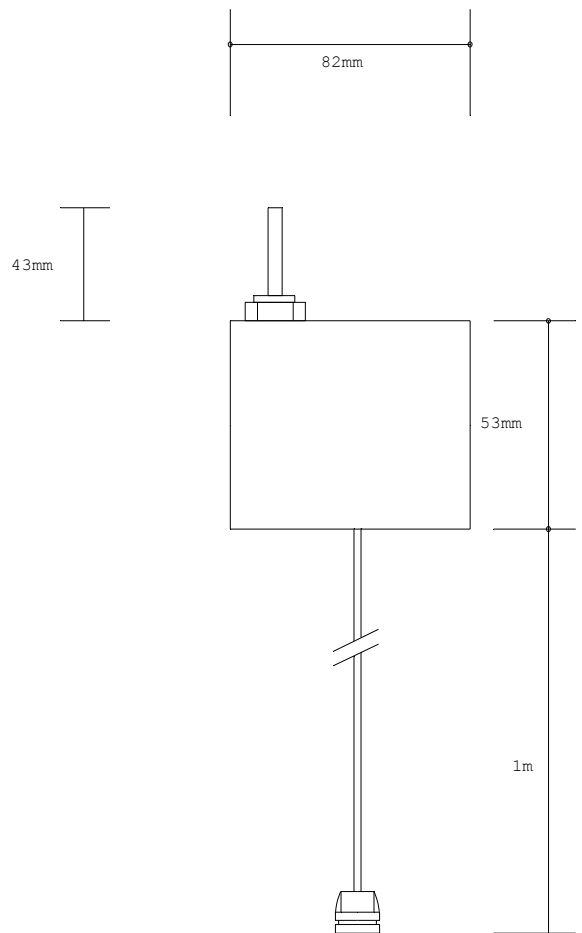
Operating Conditions:

Temperature: -10°C to +50°C

Humidity: 0% to 100%

Weather Exposure:

Constant water pressure should be avoided on the body housing the electronic circuit. The tip is fully moisture sealed.



Dimensions (mm)

Supply Voltage:

5.5 to 7 Volts DC

Current Drain:<2.5 mA.

Output:

+5 Volt pulse

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