

Black Globe Temperature (BG10 Series)

Features

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

Applications

- Feedlot Monitoring
- General meteorology
- Irrigation scheduling
- Pollution control
- Ecology
- Pest Control

The BG10 sensors consist of electronic sensors designed to measure the temperature inside a black globe.

Improved design provides for faster and more accurate temperature sensing. Temperature stability of the new design allows realistic temperature measurement accuracies of $\pm 0.2^{\circ}\text{C}$ over the range.

The sensing element consists of a semi-conductor 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.



Envirodata Environmental Monitoring & Management

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Sensor 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: -20°C to +60°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.

Supply Voltage:

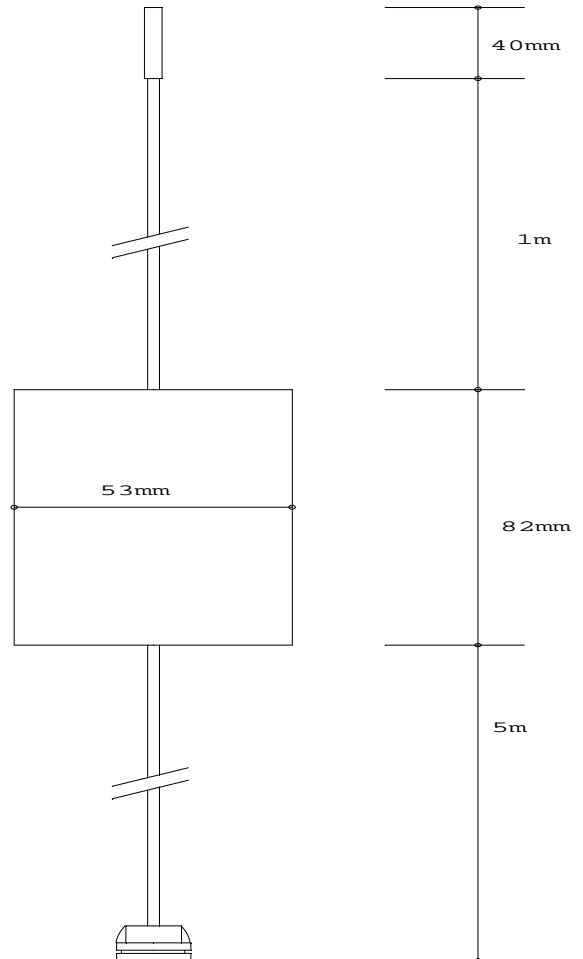
5.5 to 7 Volts DC

Current Drain < 2.5mA.

Output:

+5 Volt pulse

Dimensions (mm)

**Configurations:**

Model	BG10	BG11
Output (-20°)	0	0
Output (+60°)	40	320
Cable Type	3 core shielded	3 core shielded
Cable Length	5m 1m Tip	5m 1m Tip

Ordering:

BG Model

-10

-11

Shipping Weight: 0.75kg

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