

S-TMB-M0xx Sensor

12-Bit Temperature Smart Sensor

The 12-bit Temperature Smart Sensor provides $< \pm 0.2^{\circ}\text{C}$ total accuracy ($< \pm 0.36^{\circ}\text{F}$) and resolution of $< \pm 0.03^{\circ}\text{C}$ ($< \pm 0.054^{\circ}\text{F}$) over the range of from 0°C to 50°C (32°F to 122°F). The full measurement range is -40°C to 100°C (-40°F to 212°F). A selectable measurement-averaging feature further improves accuracy. Available in cable lengths of 2m, 6m and 17m.

Also available in a wireless model for use with the HOBOnet Field Monitoring System.

Supported Measurements:


Temperature and Water Temperature

Key Advantages:

- Measurement range of -40°C to 100°C (-40°F to 212°F)
- Stainless steel sensor tip
- Sensor and cable rated for immersion in water or soil up to 50°C for up to 1 year



S-TMB-M0xx Sensor Specifications

Measurement Range	-40° to 100°C (-40° to 212°F) – sensor tip
Accuracy	< ±0.2°C from 0° to 50°C (< ±0.36°F from 32° to 122°F)*
Resolution	<0.03°C from 0° to 50°C (<0.054°F from 32° to 122°F)
Drift	<0.1°C (0.18°F) per year**
Response Time (to 90% of change)	<2 minutes typical in 2 m/sec (4.5 mph) moving air flow <1 minute typical in stirred water bath
Environmental Operating Ranges	Smart sensor adapter: -40° to 75°C (-40°F to 167°F); weatherproof, IP67 Stainless-steel sensor tip and cable jacket: Waterproof over the range of -40° to 50°C (-40°F to 122°F) for 1 year; operation up to 100°C (212°F) in air
Housings	Stainless steel waterproof sensor tip; weatherproof polyamide housing for smart sensor adapter
Dimensions	Temperature probe: 5.1 x 33 mm (0.2 x 1.3 inches)
Weight	2 meter: 0.09 g (3.3 oz) 6 meter: 0.14 g (5.2 oz) 17 meter: 0.30 g (11.2 oz)
Bits per Sample	12
Number of Data Channels***	1
Measurement Averaging Option	Yes
Cable Lengths Available	2 m (6.6 ft) S-TMB-M002 6 m (19.7 ft) S-TMB-M006 17 m (55.8 ft) S-TMB-M017
Length of Smart Sensor Network Cable0.5 m (1.6 ft) for all models	
	The CE Marking identifies this product as complying with all relevant directives in the European Union (EU).

*Radiation Shield strongly recommended for use in sunlight (listed in Compatible Items)

**The drift specification of <0.1°C (0.18°F) per year may be exceeded when using the probe continuously in water >50°C (122°F).

***A single HOBO station can accommodate 15 data channels and up to 100 m (328 ft) of smart sensor cable (the digital communications portion of the sensor cables).



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