



## S-TMB-M0xx

### 12-Bit Temperature Smart Sensor

A 12-bit temperature Smart Sensor that 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  $0^{\circ} \text{C}$  to  $50^{\circ} \text{C}$  ( $32^{\circ}$  to  $122^{\circ} \text{F}$ ). The full measurement range is  $-40^{\circ}$  to  $100^{\circ} \text{C}$  ( $-40^{\circ}$  to  $212^{\circ} \text{F}$ ). 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.

Product Numbers:


S-TMB-M002  
S-TMB-M006  
S-TMB-M017

#### Key Advantages:

- Measurement range of  $-40^{\circ}$  to  $100^{\circ} \text{C}$  ( $-40^{\circ}$  to  $212^{\circ} \text{F}$ )
- Stainless-steel sensor tip
- Sensor and cable rated for immersion in water or soil up to  $50^{\circ} \text{C}$  for up to 1 year



## HOBO 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: 5.0 x 26 mm (0.2 x 1.0 inches)
Weight	2 meter: 94 g (3.3 oz) 6 meter: 147 g (5.2 oz) 17 meter: 318 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 Cable	0.5 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).

## Contact Us

Sales (8am to 5pm ET, Monday through Friday)

- ▶ Email [sales@onsetcomp.com](mailto:sales@onsetcomp.com)
- ▶ Call 1-508-759-9500
- ▶ In U.S. toll free 1-800-564-4377
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Technical Support (8am to 6pm ET, Monday through Friday)

- ▶ Contact Product Support [www.onsetcomp.com/support/contact](http://www.onsetcomp.com/support/contact)
- ▶ Call 1-508-759-9500
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