

S-THC-M002

Temperature/Relative Humidity (2m cable) Smart Sensor

A temp/RH sensor with 2 m cable, designed to work with all HOBO data loggers that accept Smart Sensors; no programming, calibration, or extensive user setup required.



Supported Measurements

Dew Point, Evapotranspiration, Relative Humidity, Temperature

Features

- Smart Sensor
- Works with all loggers that accept Smart Sensor inputs
- Automatically communicates configuration data to the logger

Contact Us

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

- Email sales@onsetcomp.com
- Call 1-508-759-9500
- In U.S. toll free 1-800-564-4377
- Fax 1-508-759-9100

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

- Contact Product Support www.onsetcomp.com/support/contact
- Call 1-508-759-9500
- In U.S. toll free 1-877-564-4377

Onset Computer Corporation
470 MacArthur Boulevard
Bourne, MA 02532

Temperature/Relative Humidity (2m cable) Smart Sensor (S-THC-M002) Specifications

Measurement Range

Temp -40°C to 75°C (-40°F to 167°F)

RH 0-100%* RH at -40° to 75°C (-40° to 167°F); exposure to conditions below -20°C (-4°F) or above 95% RH may temporarily increase the maximum RH sensor error by an additional 1%

Accuracy

Temp ±0.25°C from -40° to 0°C (±0.45°F from -40° to 32°F); ±0.20°C from 0° to 70°C (±0.36°F from 32° to 158°F); ±0.25°C from 70° to 75°C (±0.45°F from 158° to 167°F)

RH ±2.5% from 10% to 90% RH (typical), to a maximum of ±3.5% including hysteresis at 25°C (77°F); below 10% and above 90% ±5% typical

Resolution

Temp 0.02°C

RH 0.01% RH

Bits Per Sample

Temp 16

RH 16

Drift

Temp < 0.01°C (0.18°F) per year

RH < 1% per year typical

Response Time (typical, to 90% of change)

Temp Without solar radiation shield: 3 minutes, 45 seconds in air moving 1 m/s; With RS3-B solar radiation shield: 6 minutes, 30 seconds in air moving 1 m/s

RH Without solar radiation shield: 15 seconds in air moving 1 m/s; With RS3-B solar radiation shield: 30 seconds in air moving 1 m/s

Sensor

Operating temperature range	-40°C to 75°C (-40°F to 167°F)
Environmental rating	Weatherproof: 0 to 100% RH intermittent condensing environments. For best results, protect the Temp/RH sensor from sunlight and direct splashing by mounting it inside a protective enclosure, such as a solar radiation shield.
Housing	PVC cable jacket with ASA styrene polymer RH sensor cap; modified hydrophobic polyethersulfone membrane
Sensor dimensions	45.97 x 11.43 x 10.16 mm (1.81 x 0.45 x 0.40 inches)
Weight	110 g (3.88 oz)
Number of data channels**	2
Measurement averaging option	No
Cable lengths available	2.5 m (8.2 ft)
Length of Smart Sensor network cable	0.5 m (1.6 ft)

Notices

* Maximum 100 % RH readings are only logged with RX3000 stations. The maximum readings for this sensor with U30 and H21 stations are approximately 99.99 %.

** 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).

