RXW-TMB-x-xxx

HOBOnet Wireless Temperature Sensor



The HOBOnet Wireless Temperature Sensor provides a cost-effective and scalable solution for web-enabled monitoring of air temperature. HOBOnet wireless sensors communicate data directly to a HOBO RX Station or pass data through other wireless sensors back to the central station. They are preconfigured and ready to deploy, and data is accessed through HOBOlink, Onset's innovative cloud-based software platform.

Product Numbers:
RXW-TMB-1-900
RXW-TMB-1-868
RXW-TMB-1-922
RXW-TMB-1-921
RXW-TMB-6-900
RXW-TMB-6-868
RXW-TMB-6-922
RXW-TMB-6-921

Key Advantages:

Sensor Features

- Measurement range of -40° to 100°C (-40° to 212°F)
- High accuracy: ± 0.2°C (± 0.36°F)
- Stainless-steel sensor tip

Wireless Features

- 900 MHz wireless mesh self-healing technology
- 450 to 600 meter (1,500 to 2,000 feet) wireless range and up to five hops
- Up to 50 wireless sensors or 336 data channels per HOBO RX station
- Simple button-push to join the HOBOnet wireless network
- Onboard memory to ensure no data loss
- Powered by rechargeable AA batteries and built-in solar panel

HOBO RXW-TMB-x-xxx Sensor Specifications

Sensor	
Measurement Range	-40° to 100°C (-40° to 212°F)
Accuracy	±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 100°C (±0.45°F from 158° to 212°F)
Resolution	0.02°C (0.036°F)
Drift	<0.01°C (0.018°F) per year
Response Time (typical, to 90% of change)	2 minutes, 30 seconds in air moving 1 m/sec
Wireless Mote	
Operating Temperature Range	-40° to 70°C (-40° to 158°F)
Radio Power	12.6 mW (+11 dBm) non-adjustable
Transmission Range	Reliable connection to 457.2 m (1,500 ft) line of sight at 1.8 m (6 ft) high Reliable connection to 609.6 m (2,000 ft) line of sight at 3 m (10 ft) high
Wireless Data Standard	IEEE 802.15.4
Radio Operating Frequencies	RXW-TMB-x-900: 904–924 MHz RXW-TMB-x-868: 866.5 MHz RXW-TMB-x-921: 921 MHz RXW-TMB-x-922: 916–924 MHz
Modulation Employed	OQPSK (Offset Quadrature Phase Shift Keying)
Data Rate	Up to 250 kbps, non-adjustable
Duty Cycle	<1%
Maximum Number of Motes	Up to 50 wireless sensors or 336 data channels per one HOBO RX station
Logging Rate	1 minute to 18 hours
Number of Data Channels	2
Battery Type	Two AA 1.5 V lithium batteries
Battery Life	1 year, typical use
Memory	16 MB
Dimensions	Sensor: 5.3 x 33 mm (0.2 x 1.3 inches) Cable length: 0.3 m (1 ft), RXW-TMB-1-xxx; 1.8 m (6 ft), RXW-TMB-6-xxx Mote: 16.2 x 8.59 x 4.14 cm (6.38 x 3.38 x 1.63 inches)
Weight	Sensor and cable: 7.6 g (0.27 oz), RXW-TMB-1-xxx; 35.2 g (1.24 oz), RXW-TMB-6-xxx Mote: 223 g (7.87 oz)
Materials	Sensor: Stainless steel waterproof tip Mote: PCPBT, silicone rubber seal
Environmental Rating	Sensor and cable: Immersion in water up to 50°C (122°F) for 1 year Mote: IP67, NEMA 6
Compliance Marks	RXW-TMB-1-900 and RXW-TMB-6-900
	RXW-TMB-1-868 and RXW-TMB-6-868
	RXW-TMB-1-921 and RXW-TMB-6-921
	RXW-TMB-1-922 and RXW-TMB-6-922

Contact Us

Sales (8am to 5pm ET, Monday through Friday)
- Email sales@onsetcomp.com
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- 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
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