



## HOBO MX TidbiT Ext Temp Logger

### Model:

- MX2205 Ext Temp

### Items included:

- Protective boot

### Required Items:

- HOBObconnect app
- Mobile device with Bluetooth and iOS, iPadOS®, or Android™, or a Windows computer with a native BLE adapter or supported BLE dongle

HOBO MX TidbiT Ext Temp logger measures temperature in streams, lakes, coastal habitats, and soil environments. Housed in a protective boot, this rugged logger is designed for extended deployments in fresh water at depths up to 30.5m (100 ft). The logger uses Bluetooth® Low Energy (BLE) for wireless communication with a phone, tablet, or computer. Using the HOBObconnect® app, you can easily configure the logger, download logged data to your mobile device or computer, or automatically upload the data to HOBOLink® for further analysis. You can also configure the logger to calculate statistics, set up alarms to trip at specific thresholds, or enable burst logging in which data is logged at a faster interval when sensor readings are above or below certain limits.

## Specifications

### Temperature Sensors

<b>Range</b>	<b>Probe:</b> -40 to 100°C (-40 to 212°F), with tip and cable immersion in fresh water up to 50°C (122°F) for one year <b>Logger:</b> -20° to 70°C (-4° to 158°F) in air; -20° to 50°C (-4° to 122°F) in water, maximum sustained temperature in water 30°C (86°F)
<b>Accuracy</b>	<b>Probe:</b> ±0.25°C from -40 to 0°C (±0.45 from -40 to 32°F) ±0.2°C from 0 to 70°C (±0.36 from 32 to 158°F) ±0.25°C from 70 to 100°C (±0.45 from 158 to 212°F) <b>Logger:</b> ±0.25°C from -20° to 0°C (±.45°F from -4° to 32°F) ±0.2°C from 0° to 70°C (±0.36°F from 32° to 158°F)
<b>Resolution</b>	0.01°C (0.018°F)
<b>Drift</b>	<0.1°C (0.18°F) per year
<b>Response Time</b> (typical, to 90% of change)	<b>Probe:</b> 3 minutes in air moving 1 m/sec; 20 seconds in stirred water <b>Logger:</b> 15 minutes typical to 90% in air moving 1 m/s, unmounted; 4 minutes typical to 90% in stirred water, unmounted
<b>Logger</b>	
<b>Logger Operating Range</b>	-20° to 70°C (-4° to 158°F)
<b>Buoyancy (Fresh Water)</b>	14.26 g (0.50 oz) negative
<b>Waterproof</b>	To 30.5 m (100 ft)
<b>Radio Power</b>	1 mW (0 dBm)
<b>Transmission Range</b>	Approximately 30.5 m (100 ft) line-of-sight
<b>Wireless Data Standard</b>	Bluetooth Low Energy (Bluetooth Smart)
<b>Logging Rate</b>	1 second to 18 hours
<b>Time Accuracy</b>	±1 minute per month at 25°C (77°F)
<b>Battery</b>	CR2477 3V lithium, non-replaceable
<b>Battery Life</b>	3 years, typical at 25°C (77°F) with logging interval of 1 minute and Bluetooth Always Off disabled in software. 5 years, typical at 25°C (77°F) with logging interval of 1 minute and Bluetooth Always Off enabled in the app. Faster logging intervals and statistics sampling intervals, burst logging, remaining connected with the app, excessive downloads, and paging may affect battery life.
<b>Memory</b>	96,000 measurements
<b>Full Memory Download Time</b>	Approximately 45 seconds; may take longer the farther the device is from the logger.
<b>Wetted Materials</b>	Epoxy case, Santoprene (TPE) boot
<b>Dimensions</b>	Logger housing: 4.06 x 6.99 x 3.51 cm (1.6 x 2.75 x 1.38 inches) External temperature sensor diameter: 0.53 cm (0.21 in.) External sensor cable length: 2 m (6.56 ft.)
<b>Weight</b>	70.0 g (2.47 oz.)
<b>Environmental Rating</b>	IP68



## METRICS

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