



# HOBO MX2204 Bluetooth Waterproof (1500 Metres) Temperature Data Logger

## Product Images



## Short Description

The HOBO MX2204 TidbiT waterproof temperature logger is ideal for long-term deployments in streams,

lakes, and oceans (up to 5,000 foot depths).

This rugged waterproof logger leverages the power of Bluetooth Low Energy (BLE) to deliver high-accuracy temperature measurements straight to your iOS or Android mobile device.

## Description

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The HOBO MX2204 TidbiT waterproof temperature logger leverages the power of Bluetooth Low Energy (BLE) to deliver high-accuracy temperature measurements straight to your mobile device with Onset's free HOBObconnect app. Designed for durability, this rugged waterproof logger is ideal for long-term deployments in streams, lakes, and oceans. The HOBO MX2204 also provides the additional feature to detect and record the presence of water which is ideal for monitoring intermittent water applications. Data collection in the field has never been easier!

For remote cloud-based access to your data and alerts via email/SMS text message, simply add the optional [MX Gateway](#) (indoor deployments).

## Key Features

- Convenient wireless setup and download via Bluetooth Low Energy (BLE)
- Large memory stores 96,000 measurements
- Waterproof to 1500 metres (5000 feet)
- Water detection feature records when logger is in and out of the water
- Waterproof boot protects the logger during deployment
- LED alarm notifies you when temperature exceeds set threshold
- Battery life extension feature
- Works with Onset's free HOBObconnect app
- $\pm 0.2^{\circ}\text{C}$  ( $\pm 0.36^{\circ}\text{F}$ ) accuracy.

This data logger operates in indoor, outdoor and underwater environments.

The MX2204 data logger supports the following measurements: Soil Temperature, Temperature and Water Temperature.

## Additional Information

Country of Manufacture	United States
Explanation	<p><b>Temperature Sensor (MX2204)</b></p> <p><b>Range</b> MX2204: -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)</p> <p><b>Accuracy</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)</p> <p><b>Resolution</b> 0.01°C (0.018°F)</p> <p><b>Drift</b> &lt;0.1°C (0.18°F) per year</p> <p><b>Response Time</b> MX2204: 15 minutes typical to 90% in air moving 1 m/s, unmounted; 4 minutes typical to 90% in stirred water, unmounted</p>
	<p><b>Logger</b></p> <p><b>Radio Power</b> 1 mW (0 dBm)</p> <p><b>Transmission Range</b> Approximately 30.5 m (100 ft) line-of-sight</p> <p><b>Wireless Data Standard</b> Bluetooth Smart (Bluetooth Low Energy, Bluetooth 4.0)</p> <p><b>Logger Operating Range</b> -20° to 70°C (-4° to 158°F)</p> <p><b>Logging Rate</b> 1 second to 18 hours</p> <p><b>Buoyancy (Fresh Water)</b> MX2204: 7.6 g (0.27 oz) negative</p> <p><b>Waterproof</b> MX2204: To 1,524 m (5,000 ft)</p> <p><b>Water Detection</b> Water conductivity level of 100 µS/cm or greater necessary for reliable detection of water. Deionized water or water below 100 µS/cm may not be detected. The water conductivity circuit may not reliably detect water that has frozen around the electrodes, i.e. below 0°C (32°F).</p> <p><b>Memory Battery</b> 96,000 measurements CR2477 3V lithium, non-replaceable in MX2204</p> <p><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 or Bluetooth Off Water Detect enabled in software. Faster logging intervals and statistics sampling intervals, burst logging, remaining connected with the app, excessive downloads, and paging may impact battery life.</p> <p><b>Time Accuracy</b> ± 1 minute per month at 25°C (77°F)</p> <p><b>Full Memory Download</b> Approximately 45 seconds; may take longer the farther the device is from the logger</p> <p><b>Wetted Materials</b> MX2204: Epoxy case, Santoprene (TPE) boot</p> <p><b>Dimensions</b> MX2204: 4.06 x 6.99 x 3.51 cm (1.6 x 2.75 x 1.38 inches)</p> <p><b>Weight</b> MX2204: 32.8 g (1.16 oz)</p> <p>The CE Marking identifies this product as complying with all relevant directives in the European Union (EU). This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.</p>
Contents	Data Logger, Protective Boot
Ideal For	Professional, Education
Brand	Onset HOBO
Onset Product Series	TidbiT
Typical applications	Environmental (Outdoor), Field Research, Food Safety, Water Quality
Measurements	Temperature, Water Temperature

## Additional Options

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### Optional Remote Cloud Access to Your Data

MX Gateway for HOBO MX Data Loggers (SKU: MXGTW1)

HOBOLink Service Plan (One Year Subscription (SKU: SP-620)) - one required per MX Gateway

### Temperature Calibration Certificate

2 Point Temperature Calibration (0°C / 60°C)

2 Point Temperature Calibration (please specify temperature points)

1 Point Temperature Calibration (0°C)