



# HOBO MX2202 Bluetooth Waterproof (30 Metres) Temperature / Light Data Logger

## Product Images



## Short Description

Delivers accurate temperature and relative light-level measurements straight to your iOS or Android mobile device, and is ideal for measuring temperature in streams, lakes, oceans, and soil environments.

## Description

The HOBO MX2202 waterproof temperature/light level logger leverages the power of Bluetooth Low Energy (BLE) to deliver accurate temperature and light-level measurements straight to your mobile device with Onset's free HOBOconnect app. Designed for durability, this compact waterproof logger is ideal for

measuring temperature in streams, lakes, oceans, and soil environments. 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](#) (The MX Gateway needs to be placed indoors, but the logger(s) can be placed outdoors within 30 metres (100 feet) of the MX Gateway).

## Key Features

- New light sensor offering more accurate light intensity readings for light in the visible light spectrum
- Convenient wireless setup and download via Bluetooth Low Energy (BLE)
- Large memory stores 96,000 measurements
- Waterproof to 30 metres (100 feet)
- User-replaceable battery
- Mounting tabs for fast, easy deployment
- LED alarm notifies you when temperature exceeds set threshold
- Works with Onset's free HOBOnnect app
- $\pm 0.5^{\circ}\text{C}$  ( $\pm 0.9^{\circ}\text{F}$ ) temperature accuracy and  $\pm 10\%$  light accuracy typical for direct sunlight.

Operates in indoor, outdoor and underwater environments.

The MX2202 data logger supports the following measurements: Light Intensity, Soil Temperature, Temperature and Water Temperature.

Additional Information

Country of Manufacture	United States
Brand	Onset HOBO
Measurements	Light Intensity, Temperature, Water Temperature
Typical applications	Building Monitoring, Environmental (Indoor), Environmental (Outdoor), Field Research, Food Safety, Water Quality
Onset Product Series	Pendant (UA)
Explanation	<div><div>Temperature Sensor</div><div><div>Range</div><div>Accuracy</div><div>Resolution</div><div>Drift</div><div>Response Time</div></div><div><div>-20° to 70°C (-4° to 158°F) in air</div><div>-20° to 50°C (-4° to 122°F) in water</div><div>±0.5°C from -20° to 70°C (-4° to 158°F)</div><div>0.04°C (0.072°F)</div><div>&lt;0.1°C (0.18°F) per year</div><div>17 minutes typical to 90% in air moving 1 m/s, unmounted</div><div>7 minutes typical to 90% in stirred water, unmounted</div></div></div>
	<div><div>Light Sensor</div><div><div>Range</div><div>Accuracy</div></div><div><div>0 to 167,731 lux (15,582 lum/ft2)</div><div>±10% typical for direct sunlight (see Light Measurement on page 2 in the manual for more details)</div></div></div>
	<div><div>Logger</div><div><div>Radio Power</div><div>Transmission Range</div><div>Wireless Data Standard</div></div><div><div>1 mW (0 dBm)</div><div>Approximately 30.5 m (100 ft) line-of-sight</div><div>Bluetooth Smart (Bluetooth Low Energy, Bluetooth 4.0)</div></div></div>
	<div><div>Logger Operating Range</div><div>Logging Rate</div><div>Buoyancy (Fresh Water)</div><div>Waterproof</div><div>Memory</div><div>Battery</div><div>Battery Life</div></div> <div><div>-20° to 70°C (-4° to 158°F) in air</div><div>1 second to 18 hours</div><div>2g (0.07 oz) positive</div><div>To 30.5 m (100 ft)</div><div>96,000 measurements</div><div>CR2032 3V lithium, user replaceable</div><div>1 year typical at 25°C (77°F) with logging interval of 1 minute and Bluetooth Always Off disabled in software.</div><div>2 years typical at 25°C (77°F) with logging interval of 1 minute and Bluetooth Always Off enabled in software.</div><div>Faster logging intervals and statistics sampling intervals, burst logging, remaining connected with the app, excessive downloads, and paging may impact battery life.</div><div>To ensure proper battery installation, see Battery Information for detailed instructions on replacing the battery.</div></div>
	<div><div>Time Accuracy</div><div>Full Memory Download</div></div> <div><div>± 1 minute per month at 25°C (77°F)</div><div>Approximately 45 seconds; may take longer the farther the device is from the logger</div></div>
	<div><div>Wetted Materials</div><div>Dimensions</div><div>Weight</div></div> <div><div>Polypropylene case, EPDM O-ring</div><div>3.35 x 5.64 x 1.6 cm (1.32 x 2.22 x 0.63 inches)</div><div>12.75 g (.45 oz)</div></div>
	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.
Contents	Data Logger, Protective Boot
Ideal For	Professional, Education
Power	Battery only

# Additional Options

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)
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