



## HOBO<sup>®</sup> MX2201 Data Logger

### Pendant MX Water Temperature Data Logger

The HOBO MX2201 waterproof temperature logger leverages the power of Bluetooth Low Energy (BLE) to deliver accurate temperature measurements straight to your iOS or Android mobile device. 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!

Remotely access your data in Onset's cloud-based HOBOLink software with the new MX Gateway.

#### Supported Measurements:

Temperature and Water Temperature

#### Key Advantages:

- Convenient wireless setup and download via Bluetooth Low Energy (BLE)
- Large memory stores 96,000 measurements
- Waterproof to 30 meters (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 HOBOMobile app
- $\pm 0.5^{\circ}\text{C}$  ( $\pm 0.9^{\circ}\text{F}$ ) accuracy



## HOBO MX2201 Data Logger Specifications

### Temperature Sensor (MX2201 and MX2202)

|                      |  |
|----------------------|--|
| <b>Range</b>         | -20° to 70°C (-4° to 158°F) in air<br>-20° to 50°C (-4° to 122°F) in water                                       |
| <b>Accuracy</b>      | ±0.5°C from -20° to 70°C (-4° to 158°F)  |
| <b>Resolution</b>    | 0.04°C (0.072°F)   |
| <b>Drift</b>         | <0.1°C (0.18°F) per year   |
| <b>Response Time</b> | 17 minutes typical to 90% in air moving 1 m/s, unmounted<br>7 minutes typical to 90% in stirred water, unmounted |

### Logger

|                               |   |
|-------------------------------|---|
| <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 Smart (Bluetooth Low Energy, Bluetooth 4.0)   |
| <b>Logger Operating Range</b> | -20° to 70°C (-4° to 158°F) in air  |
| <b>Logging Rate</b>           | 1 second to 18 hours  |
| <b>Buoyancy (Fresh Water)</b> | 2g (0.07 oz) positive   |
| <b>Waterproof</b>             | To 30.5 m (100 ft)  |
| <b>Memory</b>                 | 96,000 measurements   |
| <b>Battery</b>                | CR2032 3V lithium, user replaceable   |
| <b>Battery Life</b>           | 1 year typical at 25°C (77°F) with logging interval of 1 minute and Bluetooth Always On in software.<br>2 years typical at 25°C (77°F) with logging interval of 1 minute and Bluetooth Always Off in software.<br>Faster logging intervals and statistics sampling intervals, burst logging, remaining connected with the app, excessive downloads, and paging may impact battery life.<br>To ensure proper battery installation, see Battery Information for detailed instructions on replacing the battery. |
| <b>Time Accuracy</b>          | ± 1 minute per month at 25°C (77°F)   |
| <b>Full Memory Download</b>   | Approximately 45 seconds; may take longer the farther the device is from the logger   |
| <b>Wetted Materials</b>       | Polypropylene case, EPDM O-ring   |
| <b>Dimensions</b>             | 3.35 x 5.64 x 1.8 cm (1.32 x 2.22 x 0.69 inches)  |
| <b>Weight</b>                 | 12.75 g (.45 oz)  |

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.

## Contact Us

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

- ▶ Email [sales@onsetcomp.com](mailto: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 8pm ET, Monday through Friday)

- ▶ Contact Product Support [www.onsetcomp.com/support/contact](http://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



## HOBO<sup>®</sup> MX2202 Data Logger

### Pendant MX Temperature/Light Data Logger

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 iOS or Android mobile device. 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!

Remotely access your data in Onset's cloud-based HOBOLink software with the new MX Gateway.

#### Supported Measurements:

Light Intensity, Temperature and Water Temperature

#### Key Advantages:

- 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 meters (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 HOBOMobile app
- $\pm 0.5^{\circ}\text{C}$  ( $\pm 0.9^{\circ}\text{F}$ ) temperature accuracy and  $\pm 10\%$  light accuracy typical for direct sunlight



## HOBO MX2202 Data Logger Specifications

### Temperature Sensor (MX2201 and MX2202)

|                      |  |
|----------------------|--|
| <b>Range</b>         | -20° to 70°C (-4° to 158°F) in air<br>-20° to 50°C (-4° to 122°F) in water                                       |
| <b>Accuracy</b>      | ±0.5°C from -20° to 70°C (-4° to 158°F)  |
| <b>Resolution</b>    | 0.04°C (0.072°F)   |
| <b>Drift</b>         | <0.1°C (0.18°F) per year   |
| <b>Response Time</b> | 17 minutes typical to 90% in air moving 1 m/s, unmounted<br>7 minutes typical to 90% in stirred water, unmounted |

### Light Sensor (MX2202)

|                 |   |
|-----------------|---|
| <b>Range</b>    | 0 to 167,731 lux (15,582 lum/ft <sup>2</sup> )  |
| <b>Accuracy</b> | ±10% typical for direct sunlight (see Light Measurement on page 2 in the manual for more details) |

### Logger

|                               |   |
|-------------------------------|---|
| <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 Smart (Bluetooth Low Energy, Bluetooth 4.0)   |
| <b>Logger Operating Range</b> | -20° to 70°C (-4° to 158°F) in air  |
| <b>Logging Rate</b>           | 1 second to 18 hours  |
| <b>Buoyancy (Fresh Water)</b> | 2g (0.07 oz) positive   |
| <b>Waterproof</b>             | To 30.5 m (100 ft)  |
| <b>Memory</b>                 | 96,000 measurements   |
| <b>Battery</b>                | CR2032 3V lithium, user replaceable   |
| <b>Battery Life</b>           | 1 year typical at 25°C (77°F) with logging interval of 1 minute and Bluetooth Always On in software.<br>2 years typical at 25°C (77°F) with logging interval of 1 minute and Bluetooth Always Off in software.<br>Faster logging intervals and statistics sampling intervals, burst logging, remaining connected with the app, excessive downloads, and paging may impact battery life.<br>To ensure proper battery installation, see Battery Information for detailed instructions on replacing the battery. |
| <b>Time Accuracy</b>          | ± 1 minute per month at 25°C (77°F)   |
| <b>Full Memory Download</b>   | Approximately 45 seconds; may take longer the farther the device is from the logger   |
| <b>Wetted Materials</b>       | Polypropylene case, EPDM O-ring   |
| <b>Dimensions</b>             | 3.35 x 5.64 x 1.8 cm (1.32 x 2.22 x 0.69 inches)  |
| <b>Weight</b>                 | 12.75 g (.45 oz)  |

The CE Marking identifies this product as complying with all relevant directives in the European Union (EU).

## Contact Us

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

- ▶ Email [sales@onsetcomp.com](mailto: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 8pm ET, Monday through Friday)

- ▶ Contact Product Support [www.onsetcomp.com/support/contact](http://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