



HOBO[®] MX1104 Data Logger

Analog/Temp/RH/Light

The HOBO MX1104 multi-channel data logger measures and transmits temperature, relative humidity, and light intensity data wirelessly. It also includes an external analog input to attach a variety of additional sensors.

This self-contained wireless data logger lets you use your mobile device or Windows computer and Onset's free HOBObconnect app to access data, at any time, over a 100-foot range via Bluetooth technology. You can configure the logger, read out data, view data in graphs, check the operational status of loggers, configure alarm notifications, and share data files - all with no dedicated equipment beyond a mobile device or laptop. And if used with the new MX Gateway, you can remotely access your data in Onset's cloud-based HOBOLink[®] software.

You can download the HOBObconnect app here:


Key Advantages:

- Bluetooth communication for wireless data offload
- 16-bit resolution for highly-accurate measurements
- Stores 1.9 million measurements for longer deployments between offloads
- New Self-Describing sensors with automatic configuration for fast deployment
- Compatible with existing sensors for a wide range of indoor monitoring
- Audible and visual LCD-screen alarms notify you if sensor becomes unplugged or a reading exceeds set thresholds



HOBO MX1104 Data Logger Specifications

| | | | | | |
|------------------------------------|--|---------------------------------|-----------------------------|----------------------------|----------------------------|
| Temperature Sensor (MX1104) | | | | | |
| Range | -20° to 70°C (-4° to 158°F) | | | | |
| Accuracy | ±0.20°C from 0° to 50°C (±0.36°F from 32° to 122°F) | | | | |
| Resolution | 0.002°C at 25°C (0.004°F at 77°F) | | | | |
| Drift | <0.1°C (0.18°F) per year | | | | |
| RH Sensor* (MX1104) | | | | | |
| Range | 0% to 100% at -20° to 70°C (-4° to 158°F); exposure to conditions above 95% may temporarily increase the maximum RH sensor error by an additional 1% | | | | |
| Accuracy | ±2.5% from 10% to 90% (typical) to a maximum of ±3.5% including hysteresis at 25°C (77°F); below 10% and above 90% ±5% typical | | | | |
| Resolution | 0.01% | | | | |
| Drift | <1% per year typical | | | | |
| Response Time (MX1104) | | | | | |
| Temperature | 11 minutes in air moving 1 m/s (2.2 mph) | | | | |
| RH | 30 seconds to 90% in airflow of 1 m/s (2.2 mph) | | | | |
| Light Sensor (M1104) | | | | | |
| Range | 0 to 167,731 lux (15,582 lum/ft ²) | | | | |
| Accuracy | ±10% typical for direct sunlight (see Light Measurement on page 4 for more details) | | | | |
| Logger with Cable Type | SD-MA-420 or CABLE-4-20mA | SD-VOLT-2.5 or CABLE-2.5-STEREO | SD-VOLT-05 or CABLE-ADAP5 | SD-VOLT-10 or CABLE-ADAP10 | SD-VOLT-24 or CABLE-ADAP24 |
| Measurement Range | 0 to 20.1 mA | 0 to 2.5 V | 0 to 5.0 V | 0 to 10 V | 0 to 24 V |
| Accuracy | ±0.001 mA ±0.2% of reading | ±0.1 mV ±0.1% of reading | ±0.2 mV ±0.3% of reading | ±0.4 mV ±0.3% of reading | ±1.0 mV ±0.3% of reading |
| Resolution | 0.3 µA | 40 µV | 80 µV | 160 µV | 384 µV |
| Logger | | | | | |
| Operating Range | -20° to 70°C (-4° to 158°F) | | | | |
| Radio Power | 1 mW (0 dBm) | | | | |
| Transmission Range | Approximately 30.5 m (100 ft) line-of-sight | | | | |
| Wireless Data Standard | Bluetooth Low Energy (Bluetooth Smart) | | | | |
| Logging Rate | 1 second to 18 hours | | | | |
| Logging Modes | Fixed interval (normal, statistics) or burst | | | | |
| Memory Modes | Wrap when full or stop when full | | | | |
| Start Modes | Immediate, push button, date & time, or next interval | | | | |
| Stop Modes | When memory full, push button, date & time, or after a set logging period | | | | |
| Restart Mode | Push button | | | | |

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|--|---|
| Time Accuracy | ±1 minute per month at 25°C (77°F) |
| Battery Type | Two AAA 1.5 V alkaline batteries, user replaceable |
| Battery Life | 1 year, typical with logging interval of 1 minute and Bluetooth Always On enabled; 2 years, typical with logging interval of 1 minute and Bluetooth Always On disabled; and temperatures between 0° and 50°C (32° and 122°F). Faster logging intervals and statistics sampling intervals, burst logging, remaining connected with the app, excessive downloads, and paging may impact battery life. |
| Memory | 4 MB (1.9 million measurements, maximum) |
| Full Memory Download Time | Approximately 4 to 15 minutes depending on the mobile device; may take longer the further the device is from the logger |
| LCD | LCD is visible from 0° to 50°C (32° to 122°F); the LCD may react slowly or go blank in temperatures outside this range |
| Size | 11.28 x 5.41 x 2.92 cm (4.44 x 2.13 x 1.15 in.) |
| Weight | 123 g (4.34 oz) |
| Environmental Rating | IP54 |
|  | The CE Marking identifies this product as complying with all relevant directives in the European Union (EU). |



*Per RH sensor manufacturer data sheet

Contact Us

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

- ▶ Email 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 6pm ET, Monday through Friday)

- ▶ Contact Product Support www.onsetcomp.com/support/contact
- ▶ Call 1-508-759-9500
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