HOBO® MX1104 Data Logger

Analog/Temp/RH/Light Data Logger

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 and Onset's free HOBOmobile® app for iOS to access data, at any time, over a 100-foot range via Bluetooth Low Energy (BLE) 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. And if used with the new MX Gateway, you can remotely access your data in Onset's cloud-based HOBOlink® software.

Supported Measurements:

4-20mA, AC Current, AC Voltage, Air Velocity, Carbon Dioxide, Compressed Air Flow, DC Current, DC Voltage, Dew Point, Differential Pressure, Gauge Pressure, Kilowatts (kW), Light Intensity, Relative Humidity and Temperature

Key Advantages:

- BLE communications 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/ft2)				
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				
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
CE	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)
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- In U.S. toll free 1-800-564-4377
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Technical Support (8am to 6pm ET, Monday through Friday)
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