



HOBO MX1104 Wireless Temperature, Relative Humidity & Light (+1 x External Analogue Input) Data Logger

Product Images



Short Description

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

Description

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

This self-contained wireless data logger lets you use your mobile device and Onset's free [HOBObconnect app for iOS](#), or [HOBObconnect for Android](#) 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.

Key Features

- Bluetooth Low Energy 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.

This data logger operates in an indoor environment.

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

Additional Information

Country of Manufacture	United States					
Brand	Onset HOBO					
Measurements	4-20mA, Air Velocity, CO2, Compressed Air Flow, Current AC, Current DC, Dew Point, Differential Pressure, Humidity, Kilowatts (kW), Light Intensity, Pressure, Temperature, Voltage AC, Voltage DC					
Typical applications	Building Monitoring, Building Performance, Environmental (Indoor), HVAC, Thermal Comfort					
Onset Product Series	MX1100					
Explanation	To see the full specifications for this product, please see the product manual found under the Resources tab.					
	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					
The CE Marking identifies this product as complying with all relevant directives in the European Union (EU).						
*Per RH sensor manufacturer data sheet						
Dimensions	11.28 x 5.41 x 2.92 cm					
Batteries	2 x AAA 1.5V alkaline batteries, user replaceable					
Power	Battery Only					

Additional Options

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 & Humidity Calibration Certificate	Temperature & Humidity Calibration @ 20°C and 50RH
	Temperature & Humidity Calibration (please specify measurement points required)
Carbon Dioxide Sensor (hold down Ctrl key & click to select multiple items)	Telaire 7001 Carbon Dioxide Sensor (TEL-7001)
	Telaire 7001 CO2 Sensor Output Cable - required with CO2 Sensor (CABLE-CO2)
Differential Pressure (hold down Ctrl key & click to select multiple items)	Differential Air Pressure & Air Velocity Transducer Sensor with LCD Display (T-VER-PX3UL)
	0-5 Volt DC Input Cable (CABLE-ADAP5)
	Switched AC Power Adapter (P-AC-1)
Self-Describing Air/Water/Soil Temperature Sensor - Cable Length	0.3 Metres (SD-TEMP-01)
	1.8 Metres (SD-TEMP-06)
	5.1 Metres (SD-TEMP-20)
	15.2 Metres (SD-TEMP-50)
Self-Describing DC Voltage Input Cable	0 to 2.5 V DC (SD-VOLT-2.5)
	0 to 5 V DC (SD-VOLT-05)
	0 to 10 V DC (SD-VOLT-10)
	0 to 10 V DC (SD-VOLT-24)
Self-Describing Split-Core AC Current Transformer Sensor	2-20 AMP (SD-CT-020)
	5-50 AMP (SD-CT-050)
	10-100 AMP (SD-CT-100)

	20–200 AMP (SD-CT-200)
	60–600 AMP (SD-CT-600)
Other Sensors	4-20 MA Input Cable Self-Describing Sensor (SD-MA-420)
	Food-Grade Stainless Steel Temperature Self-Describing Sensor (6 ft cable) (SD-TEMP-SS-06)
	Pipe Temperature Self-Describing Sensor (6 foot cable) (SD-TEMP-P-06)