HOBO® MX1102 Data Logger

Bluetooth Low Energy Carbon Dioxide - Temp - RH Data Logger

Onset's HOBO MX1102 CO2 logger makes it more convenient than ever to measure and record CO2 in buildings and other non-condensing environments. It measures CO2 from 0 – 5,000 parts per million (ppm) – and our free HOBOmobile app* allows you to access data right from your mobile phone or tablet within a 100-foot range.

The MX1102 also features a USB port so it can be used with a computer running HOBOware graphing and analysis software.

Supported Measurements:

Carbon Dioxide, Relative Humidity and Temperature

Key Advantages:

- Wireless communication via Bluetooth Low Energy (BLE) Technology
- Six month battery life at 5-minute CO_2 logging rate
- Easy to deploy and offload using free HOBOmobile App
- Visual and audible high & low alarm thresholds
- Self-calibrating NDIR CO_2 sensor technology ensures optimal accuracy and lower maintenance costs
- Patented connectivity technology

HOBO MX1102 Data Logger Specifications

Temperature Sensor	
Range	0° to 50°C (32° to 122°F)
Accuracy	±0.21°C from 0° to 50°C (±0.38°F from 32° to 122°F)
Resolution	0.024°C at 25°C (0.04°F at 77°F)
Drift	<0.1°C (0.18°F) per year
RH Sensor	
Range	1% to 70% RH when CO_2 sensor is enabled (non-condensing) 1% to 90% RH when CO_2 sensor is disabled (non-condensing)
Accuracy	±2% from 20% to 80% typical to a maximum of ±4.5% including hysteresis at 25°C (77°F); below 20% and above 80% ±6% typical
Resolution	0.01%
Drift	<1% per year typical
CO_2 Sensor	
Range	0 to 5,000 ppm
Accuracy	±50 ppm ±5% of reading at 25°C (77°F), less than 70% RH and 1,013 mbar
Warm-up Time	15 seconds
Calibration	Auto or manual to 400 ppm
Non-linearity	<1% of FS
Pressure Dependence	0.13% of reading per mm Hg (corrected via user input for elevation/altitude)
Operating Pressure Range	950 to 1,050 mbar (use Altitude Compensation for outside of this range)
Compensated Pressure Range	-305 to 5,486 m (-1,000 to 18,000 ft)
Sensing Method	Non-dispersive infrared (NDIR) absorption
Response Time	
Temperature	12 minutes to 90% in airflow of 1 m/s (2.2 mph)
RH	1 minute to 90% in airflow of 1 m/s (2.2 mph)
CO_2	1 minute to 90% in airflow of 1 m/s (2.2 mph)
Logger	
Radio Power	1 mW (0 dBm)
Transmission Range	Approximately 30.5 m (100 ft) line-of-sight
Wireless Data Standard	Bluetooth Smart (Bluetooth Low Energy, Bluetooth 4.0)
Logger Operating Range	0° to 50°C (32° to 122°F); 0 to 95% RH (non-condensing)
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
Time Accuracy	± 1 minute per month at 25°C (77°F)
Power Source	4 AA 1.5 Volt batteries (user replaceable) or USB power source (5 V DC, 2 Watts)
Battery Life	6 months, typical with logging and sampling intervals of 5 minutes or slower; 6 months or less with logging and sampling intervals faster than 5 minutes while logging CO_2. Entering burst logging mode will impact battery life. With HOBOmobile use, battery life can be reduced by remaining connected, excessive readouts, checking of Full Status Details, audible alarms, and paging. Visual/audible alarms and other events can have a marginal impact on battery life.
Memory	128 KB (84,650 measurements, maximum)
Download Type	USB 2.0 interface or via Bluetooth Smart
Full Memory Download Time	20 seconds via USB; approximately 60 seconds via Bluetooth Smart, 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	7.62 x 12.95 x 4.78 cm (3.0 x 5.1 x 1.88 inches)
Weight	267.4 g (9.43 oz)
Environmental Rating	IP50
CE	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)
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▶ In U.S. toll free 1-800-564-4377
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Technical Support (8am to 8pm ET, Monday through Friday)
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