HOBO® MX1102A 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 noncondensing 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 MX1102A 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 90% RH (non-condensing)
Accuracy	±2below 20% and above 80% ±6% typical% from 20% to 80% typical to a maximum of ±4.5% including hysteresis at 25°C (77°F);
Resolution	0.01%
Drift	<1% per year typical
CO2 Sensor	
Range	0 to 5,000 ppm
Accuracy	±50mbar ppm ±5% of reading at 25°C (77°F), less than 90% RH non-condensing and 1,013
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 bereduced 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 EU.