

MX1102A

HOBO Carbon Dioxide/Temp/RH Data Logger

Bluetooth-enabled logger

Measures and records CO2 levels in buildings and other non-condensing environments.

Important Information

Requires either HOBOWare software or a compatible mobile device or Windows computer and the HOBObconnect app. System requirements for the app can be found at the bottom of the HOBObconnect software page. Get cloud storage and access to the powerful tools of LI-COR Cloud™ IoT software! (formerly HOBOLink) Add an MX Data Plan!



Compatible with
HOBObconnect Monitoring App
LI-COR Cloud MX Data Plan



Supported Measurements

Carbon Dioxide, Dew Point, Relative Humidity, Temperature

Features

- Wireless communication via Bluetooth technology
- Six-month battery life at 5-minute CO2 logging rate
- Easy to deploy and offload using free HOBObconnect app
- Visual and audible high & low alarm thresholds
- Self-calibrating NDIR CO2 sensor technology ensures optimal accuracy and lower maintenance costs
- Patented connectivity technology

What's in the box

- HOBO MX1102 CO2 Data Logger
- Four AA 1.5 V alkaline batteries

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

Onset Computer Corporation
470 MacArthur Boulevard
Bourne, MA 02532

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

- Contact Product Support www.onsetcomp.com/support/contact
- Call 1-508-759-9500
- In U.S. toll free 1-877-564-4377

HOBO Carbon Dioxide/Temp/RH Data Logger (MX1102A) Specifications

Temperature Sensor

Range	0° to 50°C (32° to 122°F)
Accuracy	±0.21°C from 0° to 50°C, see manual for plot (±0.38°F from 32° to 122°F, see manual for plot)
Resolution	0.024°C at 25°C, see manual for plot (0.04°F at 77°F, see manual for plot)
Drift	<0.1°C per year (0.18°F per year)

RH Sensor*

Range	1% to 90% RH (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

CO2 Sensor

Range	0 to 5,000 ppm
Accuracy	±50 ppm ±5% of reading at 25°C (77°F), less than 90% RH (non-condensing) 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 (12 minutes to 90% in airflow of 2.2 mph)
RH	1 minute to 90% in airflow of 1 m/s (1 minute to 90% in airflow of 2.2 mph)
CO2	1 minute to 90% in airflow of 1 m/s (1 minute to 90% in airflow of 2.2 mph)

Logger

Radio Power	1 mW (0 dBm)
Transmission Range	Approximately 30.5 m line-of-sight (Approximately 100 ft line-of-sight)
Wireless Data Standard	Bluetooth Low Energy (Bluetooth Smart)
Logger Operating Range	0° to 50°C ; 0 to 95% RH (non-condensing) (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 (±1 minute per month at 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 app use, battery life can be reduced by remaining connected, excessive readouts, 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; (LCD is visible from 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

Notices

* Per RH sensor manufacturer data sheet

CE Compliance Mark unknown

United States FCC Mark unknown

European Union CE Mark unknown
 Australian New Zealand Regulatory Compliance Mark unknown
 Japanese VCCI (EMC) Mark unknown