HOBO® MX1102A Data Logger

Carbon Dioxide - Temp - RH

Measures and records CO2 in buildings and other non-condensing environments. Works with our free HOBOconnect app for data access right from your mobile phone, tablet, or Windows computer when within 100 feet of the logger.

This logger also features a USB port so it can be used with a computer running HOBOware graphing & analysis software.

Add the MX Gateway for remote access to your data in our cloud-based HOBOlink software.

Key Advantages:

- Wireless communication via Bluetooth technology
- Six-month battery life at 5-minute CO_2 logging rate
- Easy to deploy and offload using free HOBOconnect 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, 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)
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%
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
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 CO2. 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
Compliance Marks	CE FC (((IC $\triangle$ $\oplus$

*Per RH sensor manufacturer data sheet

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

Technical Support (8am to 6pm 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

Onset Computer Corporation
470 MacArthur Boulevard
Bourne, MA 02532