



MX1102

## HOBO Carbon Dioxide - Temp - RH Data Logger

Bluetooth-enabled

Discontinued

Measures and records CO2 in buildings and other non-condensing environments. Works with the free HOBObconnect app for data access right from your mobile phone or tablet within a 100-foot range.

### Important Information

This data logger requires either the HOBObmobile App and a compatible mobile device or Onset's HOBObware software.



Compatible with  
**HOBObware<sup>®</sup> Software**

[View upgrade options](#)

## Supported Measurements

Carbon Dioxide, Relative Humidity, Temperature

## Features

- Wireless communication via Bluetooth Low Energy (BLE) Technology
- Six month battery life at 5-minute CO2 logging rate
- Easy to deploy and offload using free HOBObmobile 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](mailto:sales@onsetcomp.com)
- Call 1-508-759-9500
- In U.S. toll free 1-800-564-4377
- Fax 1-508-759-9100

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

- Contact Product Support [www.onsetcomp.com/support/contact](http://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 (MX1102) Specifications

### Temperature Sensor

<b>Range</b>	0° to 50°C (32° to 122°F)
<b>Accuracy</b>	±0.21°C from 0° to 50°C (±0.38°F from 32° to 122°F)
<b>Resolution</b>	0.024°C at 25°C (0.04°F at 77°F)
<b>Drift</b>	<0.1°C (0.18°F) per year

### RH Sensor

<b>Range</b>	1% to 70% RH when CO <sub>2</sub> sensor is enabled (non-condensing) 1% to 90% RH when CO <sub>2</sub> sensor is disabled (non-condensing)
<b>Accuracy</b>	±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
<b>Resolution</b>	0.01%
<b>Drift</b>	<1% per year typical

### CO<sub>2</sub> Sensor


<b>Range</b>	0 to 5,000 ppm
<b>Accuracy</b>	±50 ppm ±5% of reading at 25°C (77°F), less than 70% RH and 1,013 mbar
<b>Warm-up Time</b>	15 seconds
<b>Calibration</b>	Auto or manual to 400 ppm
<b>Non-linearity</b>	<1% of FS
<b>Pressure Dependence</b>	0.13% of reading per mm Hg (corrected via user input for elevation/altitude)
<b>Operating Pressure Range</b>	950 to 1,050 mbar (use Altitude Compensation for outside of this range)
<b>Compensated Pressure Range</b>	-305 to 5,486 m (-1,000 to 18,000 ft)
<b>Sensing Method</b>	Non-dispersive infrared (NDIR) absorption

### Response Time

<b>Temperature</b>	12 minutes to 90% in airflow of 1 m/s (2.2 mph)
<b>RH</b>	1 minute to 90% in airflow of 1 m/s (2.2 mph)
<b>CO<sub>2</sub></b>	1 minute to 90% in airflow of 1 m/s (2.2 mph)

### Logger

<b>Radio Power</b>	1 mW (0 dBm)
<b>Transmission Range</b>	Approximately 30.5 m (100 ft) line-of-sight
<b>Wireless Data Standard</b>	Bluetooth Smart (Bluetooth Low Energy, Bluetooth 4.0)
<b>Logger Operating Range</b>	0° to 50°C (32° to 122°F); 0 to 95% RH (non-condensing)

<b>Logging Rate</b>	1 second to 18 hours
<b>Logging Modes</b>	Fixed interval (normal, statistics) or burst
<b>Memory Modes</b>	Wrap when full or stop when full
<b>Start Modes</b>	Immediate, push button, date & time, or next interval
<b>Stop Modes</b>	When memory full, push button, date & time, or after a set logging period
<b>Time Accuracy</b>	± 1 minute per month at 25°C (77°F)
<b>Power Source</b>	4 AA 1.5 Volt batteries (user replaceable) or USB power source (5 V DC, 2 Watts)
<b>Battery Life</b>	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 <sub>2</sub> . 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.
<b>Memory</b>	128 KB (84,650 measurements, maximum)
<b>Download Type</b>	USB 2.0 interface or via Bluetooth Smart
<b>Full Memory Download Time</b>	20 seconds via USB; approximately 60 seconds via Bluetooth Smart, may take longer the further the device is from the logger
<b>LCD</b>	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
<b>Size</b>	7.62 x 12.95 x 4.78 cm (3.0 x 5.1 x 1.88 inches)
<b>Weight</b>	267.4 g (9.43 oz)
<b>Environmental Rating</b>	IP50
	The CE Marking identifies this product as complying with all relevant directives in the European Union (EU).