

MX801 • MX802



HOBO MX800 Series Water Data Loggers

Bluetooth Multiparameter Data Logger

Highly versatile, modular wireless multiparameter loggers that integrate sensors (purchased separately) for measuring water conductivity/salinity, depth, temperature (CT/CTD), and dissolved oxygen.

Important Information

Requires the HOBObconnect mobile app and a compatible mobile device or Windows computer. System requirements for the app can be found at the bottom of our HOBObconnect software page.



Compatible with
HOBObconnect® Monitoring App

Supported Measurements

Conductivity/Salinity, Dissolved Oxygen, Water Temperature

Features

- Compatible with interchangeable Conductivity, CTD (conductivity/temperature/depth), and DO sensors (sold separately) - swap out sensors for different applications
- Bluetooth, for easy logger configuration and data offload
- Easy to deploy, fully submersible (MX801)
- Direct read for convenient data offload (MX802)
- Logger diameter is less than 2 inches
- Faster data offload via Bluetooth 5.0
- Water detect feature indicates when logger was out of the water (MX801)
- Barometric pressure sensor included (MX802)
- Connect two sensors to one logger to get measurements like salinity adjusted DO directly, with no need for post-processing
- Guided calibration ensures accurate data
- User-replaceable batteries

What's in the box

- HOBO MX801 or MX802 data logger
- Coupler

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 MX800 Series Water Data Loggers (MX80x) Specifications

MX801 and MX802

Operating Range	-40° to 50°C (-40° to 122°F), cannot be frozen in ice
Radio Power	1 mW (0 dBm)
Transmission Range	Approximately 30.5 m (100 ft) line-of-sight
Wireless Data Standard	Bluetooth 5
Number of sensors that can be connected	2
Maximum Cable Length	120m (400 ft)
Logging Rate	5 second to 18 hours
Logging Modes	Fixed interval (normal or statistics), burst, or multiple intervals with up to 8 user-defined logging intervals and durations, with pause and repeat options
Start Modes	Immediate, next interval or date & time
Stop Modes	Memory full, never stop (overwrite oldest data), date & time, or after a set logging period
Water Detect	Events are logged when logger is submerged or removed from the water (MX801 only)
Time Accuracy	±1 minute per month 0° to 50°C (32° to 122°F)
Battery	Four AA, 1.5 V lithium batteries, user replaceable
Battery Life	With W-CTD or W-CT sensors: 2 years, typical with 1-minute logging interval or slower With W-DO sensor: 1-year, typical with 5-minute logging interval or slower Faster logging or statistics sampling intervals, entering burst logging mode, excessive readouts, and remaining connected with the app will impact battery life
Memory	730,000 measurements, divided between channels (4 Mbyte memory)
Data Download Time (with Bluetooth 5+ devices)	Full memory: Approximately 3.5 minutes 120,000 measurements: 1 minute May take longer the farther the device is from the logger

Barometric Pressure (MX802 only)

Measurement & Calibrated Range	66 to 107 kPa (9.6 to 15.5 psia), -20° to 50°C (-4° to 122°F)
Accuracy*	Typical error: ±0.2 kPa (0.029 psi) Maximum error: ±0.5 kPa (0.073 psi)
Resolution	<0.01 kPa (0.0015 psi)
Pressure Response Time**	<1 second to 90% at a stable temperature
Contribution to Water Level Accuracy***	Typical error: ±0.075% FS, 0.3 cm (0.01 ft) water Maximum error: ±0.15% FS, 0.6 cm (0.02 ft) water

MX801 & MX802 Specs, continued:

Dimensions
Logger diameter: 4.14 cm (1.63 inches)
Length without sensor: 20 cm (8 inches)
Length with W-CTD sensor: 36 cm (14 inches)
Length with W-CT sensor: 33 cm (13 inches)
Mounting loop: 12.7 x 22.6 mm (0.5 x 0.89 inches)

Weight
MX801 Logger Head Only
224 g (7.90 oz)
MX802 Logger Head Only

Wetted Materials
226 g (7.97 oz)
Logger: PVC housing with polyester film label, PET sensor connector end cap and mounting handle with EPDM and Buna-N O-rings, passivated 316 stainless steel hardware rated for use in saltwater; MX802 also has ePTFE vent
Collar: HDPE, titanium screws
Note: logger should be mounted so that no metal parts of the logger are in contact with other metals

Depth/Environmental Rating
MX801: IP68; waterproof to 100m (with sensor(s) attached)
MX802: IP67, NEMA 6; Weatherproof (with cable or Termination Plug attached); this model is not waterproof

* Pressure Accuracy: Absolute pressure sensor accuracy includes all sensor drift, temperature, and hysteresis-induced errors.

** Changes in Temperature: Allow 20 minutes in water to achieve full temperature compensation of the pressure sensor. There can be up to 0.5% of additional error due to rapid temperature changes.

***Water Level Accuracy: With accurate reference water level measurement, known water density, and a stable temperature environment. System Water Level Accuracy equals the sum of the Barometric Water Level Accuracy plus the selected CTD sensor Water Level Accuracy.

[MX800 Data Sheet](#)

