



HOBO MX800 Series wireless data loggers work with interchangeable sensors to provide a highly configurable solution for monitoring water conductivity/salinity, temperature, level, and dissolved oxygen (coming soon). Available in both an easy-to-deploy, fully submersible model (MX801) and a direct read model (MX802) for convenient data offload that doesn't require having to remove sensors from the water.

### 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
- 3/32" Allen wrench

**Technical Specifications:****Conductivity Measurements**

Measurement Range	: Electrical conductivity and specific conductance: 0 to 100,000 $\mu\text{S}/\text{cm}$
Salinity using PSS-78	: 2 to 42 PSU
Total Dissolved Solids (TDS)	: 0 to 100,000 mg/L
Calibrated Range	: Electrical conductivity 50 to 80,000 $\mu\text{S}/\text{cm}$   5 to 35C (41 to 95F)
Accuracy	: Conductivity: +/-2% or 15 $\mu\text{S}/\text{cm}$ whichever is greater Salinity: +/-2% of reading or 0.1 PSU, whichever is greater
Resolution	: Conductivity   0.1 $\mu\text{S}/\text{cm}$ from 0 to 1,000 $\mu\text{S}/\text{cm}$   1 $\mu\text{S}/\text{cm}$ from 1,000 to 10,000 $\mu\text{S}/\text{cm}$   10 $\mu\text{S}/\text{cm}$ from 10,000 to 100,000 $\mu\text{S}/\text{cm}$ Salinity: 0.01 PSU TDS: 0.1 mg/L
Response Time	: 1 second to 90% at a stable temperature

**Absolute Pressure and Water Level Measurements W-CTD-01**

Range	: 0 to 207 kPa (0 to 30 psia); approximately 0 to 9 m (0 to 30 ft) of water depth at sea level, or 0 to 12 m (0 to 40 ft) of water at 3,000 m (10,000 ft) of altitude
Factory Calibrated Range	: 69 to 207 kPa (10 to 30 psia), 0° to 40°C (32° to 104°F)
Burst Pressure	: 310 kPa (45 psia) or 18 m (60 ft) depth
Water Level Accuracy*	: Typical error: $\pm 0.05\%$ FS, 0.5 cm (0.015 ft) water Maximum error: $\pm 0.1\%$ FS, 1.0 cm (0.03 ft) water
Raw Pressure Accuracy**	: $\pm 0.3\%$ FS, 0.62 kPa (0.09 psi) maximum error
Resolution	: <0.02 kPa (0.003 psi), 0.21 cm (0.007 ft) water
Pressure Response Time***	: <1 second to 90% at a stable temperature

**Absolute Pressure and Water Level Measurements W-CTD-02**

Range	: 0 to 400 kPa (0 to 58 psia); approximately 0 to 30.6 m (0 to 100 ft) of water depth at sea level, or 0 to 33.6 m (0 to 111 ft) of water at 3,000 m (10,000 ft) of altitude
Factory Calibrated Range	: 69 to 207 kPa (10 to 30 psia), 0° to 40°C (32° to 104°F)
Burst Pressure	: 310 kPa (45 psia) or 18 m (60 ft) depth
Water Level Accuracy*	: Typical error: $\pm 0.05\%$ FS, 0.5 cm (0.015 ft) water Maximum error: $\pm 0.1\%$ FS, 1.0 cm (0.03 ft) water
Raw Pressure Accuracy**	: $\pm 0.3\%$ FS, 0.62 kPa (0.09 psi) maximum error
Resolution	: <0.02 kPa (0.003 psi), 0.21 cm (0.007 ft) water
Pressure Response Time***	: <1 second to 90% at a stable temperature

**Absolute Pressure and Water Level Measurements W-CTD-03**

Range	: 0 to 850 kPa (0 to 123.3 psia); approximately 0 to 76.5 m (0 to 251 ft) of water depth at sea level, or 0 to 79.5 m (0 to 262 ft) of water at 3,000 m (10,000 ft) of altitude
Factory Calibrated Range	: 69 to 850 kPa (10 to 123.3 psia), 0° to 40°C (32° to 104°F)
Burst Pressure	: 1,200 kPa (174 psia) or 112 m (368 ft) depth
Water Level Accuracy*	: Typical error: $\pm 0.05\%$ FS, 3.8 cm (0.125 ft) water Maximum error: $\pm 0.1\%$ FS, 7.6 cm (0.25 ft) water
Raw Pressure Accuracy**	: $\pm 0.3\%$ FS, 2.55 kPa (0.37 psi) maximum error
Resolution	: $< 0.085$ kPa (0.012 psi), 0.87 cm (0.028 ft) water
Pressure Response Time***	: $< 1$ second to 90% at a stable temperature

**Absolute Pressure and Water Level Measurements W-CTD-04**

Range	: 0 to 145 kPa (0 to 21 psia); approximately 0 to 4 m (0 to 13 ft) of water depth at sea level, or 0 to 7 m (0 to 23 ft) of water at 3,000 m (10,000 ft) of altitude
Factory Calibrated Range	: 69 to 145 kPa (10 to 21 psia), 0° to 40°C (32° to 104°F)
Burst Pressure	: 310 kPa (45 psia) or 18 m (60 ft) depth
Water Level Accuracy*	: Typical error: $\pm 0.075\%$ FS, 0.3 cm (0.01 ft) water Maximum error: $\pm 0.15\%$ FS, 0.6 cm (0.02 ft) water
Raw Pressure Accuracy**	: $\pm 0.3\%$ FS, 0.43 kPa (0.063 psi) maximum error
Resolution	: $< 0.014$ kPa (0.002 psi), 0.14 cm (0.005 ft) water
Pressure Response Time***	: $< 1$ second to 90% at a stable temperature

**Temperature Measurements (All Models)**

Range	: -20° to 50°C (-40° to 122°F), non-freezing water
Accuracy	: $\pm 0.15^\circ\text{C}$ ( $\pm 0.27^\circ\text{F}$ ) from 0° to 50°C (32° to 122°F)
Resolution	: 0.01°C at 25°C (0.018°F at 77°F)
Response Time	: 3 minutes to 90% in water (typical)
Drift	: 3 minutes to 90% in water (typical)

**Sensor**

Dimensions	: 2.5 cm (1 inch) diameter, 15 cm (6 inches) length
Weight	: Approximately xx g (xx oz) in air; approximately xx g (xx oz) in saltwater
Wetted Materials	: Passivated 316 Stainless steel housing rated for use in saltwater, Viton and Buna-N O-rings, PET sensor connector Depth sensor: ceramic Conductivity sensor: PET, platinum plating on electrodes Note: Sensor should be mounted so that it is not in contact with other metals Ip68; Waterproof to pressure sensor burst pressure rating

### Compatible Items:

#### Sensors:

Conductivity Sensor	:	W-CT
CTD Sensor, 4 Meter (13') range	:	W-CTD-04
CTD Sensor, 9 Meter (30') range	:	W-CTD-01
CTD Sensor, 30 Meter (100') range	:	W-CTD-02
CTD Sensor, 76 Meter (250') range	:	W-CTD-03

#### Accessories:

4 oz. Calibration Beaker	:	MX2500-CAL-BKR
Conductivity Sensor Antifouling Guard	:	W-GUARD-1
Antifouling Protective Guard	:	U26-GUARD-2
84 uS/cm Calibration Solution	:	COND-CAL-1
1,143 uS/cm Calibration Solution	:	COND-CAL-2
12,880 uS/cm Calibration Solution	:	COND-CAL-3
80,000 uS/cm Calibration Solution	:	COND-CAL-4
Sodium Sulfite Solution	:	U26-CAL-SOL
Plug for Unused MX800 Logger Sensor Inputs	:	W-PLUG

#### Well Caps

Well Cap	:	WELL-CAP-01
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#### Protective Enclosures

Protective Housing for MX801 Loggers	:	HOUSING-1
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#### Communication Cables

1.0m W Cable	:	CABLE-W-1.0
2.0m W Cable	:	CABLE-W-2.0
5.0m W Cable	:	CABLE-W-5.0
10m W Cable	:	CABLE-W-010
15m W Cable	:	CABLE-W-015
30m W Cable	:	CABLE-W-030
60m W Cable	:	CABLE-W-060