

MX2502

HOBO MX Underwater PAR Data Logger

Bluetooth logger with PAR, temperature, tilt sensors

Delivers highest-accuracy measurements of photosynthetically active radiation (PAR), temperature, and tilt for both underwater and above water environments.

Important Information

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

Supported Measurements

Light (water), Tilt/Acceleration (water), Light Intensity, PAR, Temperature, Tilt

Features

- Provides the highest accuracy data using the LI-192 Quantum sensor, the industry standard for logger calibration with built-in measurement averaging to filter out environmental noise
- Easily attaches to available wipers for keeping the sensor window clear and mounts on available wipers
- Streamlined logger configuration, data offload, data visualization and data sharing, all within the free HOBOconnect app
- Convenient and reliable wireless data offload eliminates having to open loggers, connect cables or bring laptops to wet locations
- Data quality control from a tilt sensor and a water-detect sensor
- Provides PAR data for both water and air calibrations
- Simplifies data management and reduces the amount of equipment you need to offload data with single platform
- Easy data consolidation, access, and visualization with LI-COR Cloud and an optional MX data plan
- Supports optimal aquaculture site selection and design
- Rugged and reliable housing and sensor materials provide years operation in harsh aquatic environments.
- Recalibration options: LI-COR for factory recalibration service or self-calibrating against a precision reference

HOBO MX Underwater PAR Data Logger (MX2502) Specifications

Sensors

Measured parameters: PAR with water calibration, PAR with air calibration, temperature, and tilt angle

Photosynthetically Active Radiation (PAR)	Range: 0-3000 $\mu\text{mol/m}^2/\text{s}$ (full sunlight) Accuracy: $\pm 5\%$ typical (LI-192 factory calibration)
Wavelengths	400-700 nm with close-to-ideal PAR response
Cosine Correction	Optimized for both underwater and atmospheric use
Temperature	Range: -20 to 50 °C (-4 to 122 °F) non-freezing water Accuracy: ± 0.2 °C Resolution: 0.1 °C
Tilt Angle	Range: 0 to 180° from vertical Accuracy: ± 5 ° Resolution: 1°

Logger

Logging Interval	User-selectable from 1 second up to 18 hours
Memory Capacity	195,000 sets of measurements
Water Detect Events	Records events when logger is submerged and when it emerges from the water
Wireless Range	Up to 30.5 m (100 feet) line-of-sight via Bluetooth Low Energy for wireless data download
Enclosure Rating	IP68 up to 30m
Battery	Powered by a factory-replaceable battery with 6-year life at nominal logging interval with Bluetooth off
Operating Environment	-20 to 50C; fresh or saltwater; cannot be frozen in ice
Dimensions	Diameter: 1.695" ; Length: 7.190"
Weight	274 g (0.604 lb.) Logger only; With packaging 495 g (1.091 Lb.)