

Conductivity monitoring for freshwater and stable saltwater applications



HOBO Conductivity Loggers are convenient, rugged, and cost-effective data loggers for a variety of freshwater and saltwater monitoring applications. The HOBO U24-001 model provides high-accuracy conductivity data in freshwater environments, for applications such as environmental impact monitoring, stormwater management, and water quality studies. The HOBO U24-002-C model is for saltwater environments with relatively small changes in salinity ($\pm 5,000 \mu\text{S}/\text{cm}$) such as saltwater bays, or to detect salinity events such as upwelling, rainstorm, and discharge events. This logger can also be used to gather salinity data for salinity compensation of HOBO U26 Dissolved Oxygen logger data. Note: This logger is not intended for monitoring salinity levels in waters with widely changing salinities as it can have significant measurement error and drift in those environments.

Key Advantages:

- Non-contact capacitive sensor provides long life
- Easy access to sensor for cleaning and shedding air bubbles
- HOBOware Pro software provides compensation for fouling using calibration points from the start and end of each deployment
- Optical interface provides high-speed, reliable data offload in wet environments
- Compatible with HOBO Waterproof Shuttle for easy and reliable data retrieval

Supported Measurements:

- Conductivity
- Salinity
- Temperature

Minimum System Requirements:



HOBOConnect



Software



Base Station



Coupler

- iOS 11, 12 and 13
- Android 7, 8, 9 and 10
- Bluetooth 4.X and up



Technical Specifications:

Part number	U24-001 Conductivity	U24-002-C Conductivity/Salinity
Memory	18,500 temperature and conductivity measurements when using one conductivity range; 14,400 sets of measurements when using both conductivity ranges (64 kbytes)	
Conductivity Calibrated Measurement Ranges	Low Range: 0 to 1,000 $\mu\text{S/cm}$ Full Range: 0 to 10,000 $\mu\text{S/cm}$	Low Range: 100 to 10,000 $\mu\text{S/cm}$ High Range: 5,000 to 55,000 $\mu\text{S/cm}$
Conductivity Calibrated Range – Temperature Range	5° to 35°C (41° to 95°F)	
Specific Conductance Accuracy (in Calibrated Range using Conductivity Assistant and Calibration Measurements)	Low Range: 3% of reading, or 5 $\mu\text{S/cm}$ Full Range: 3% of reading, or 20 $\mu\text{S/cm}$, whichever is greater	Low Range: 3% of reading or 50 $\mu\text{S/cm}$, whichever is greater High Range: 5% of reading, in waters within a range of $\pm 3,000 \mu\text{S/cm}$; waters with greater variation can have substantially greater error
Conductivity Resolution (typical)	1 $\mu\text{S/cm}$	2 $\mu\text{S/cm}$
Conductivity Drift	Less than 3% sensor drift per year	Up to 12% sensor drift per month. Use monthly start & end-point calibration to compensate
Temperature Accuracy	0.1°C (0.2°F) at 25°C (77°F)	
Temperature Resolution	0.01°C (0.02°F)	
Response Time	1 second to 90% of change (in water)	
Measurement and Operating Range	0° to 36°C (32° to 97°F) -non-freezing	-2° to 36°C (28° to 97°F) -non-freezing
Sample rate	1 second to 18 hrs, fixed or multiple-rate sampling with up to 8 user-defined sampling intervals	
Time Accuracy	± 1 minute per month	
Battery	3.6 Volt lithium battery, life: 3 years (at 1 minute logging), typical	
Maximum Depth	70 m (225 ft)	
Dimensions	3.18 cm diameter x 16.5 cm, with 6.3 mm mounting hole (1.25 in diameter x 6.5", ¼ in hole)	
CE compliant	Yes	

HOBOconnect® App for MX Data Loggers

Easy logger setup and data management with your mobile device or Windows computer

Onset's free HOBObconnect app makes it fast and easy to configure compatible HOBO MX Series data loggers (chart below) and manage the collected data. Just download the app from the Apple App Store or Google Play to your mobile device, or download from our website to your Windows computer. With HOBObconnect, you can view data in graphs, check the operational status of loggers, share data files and graph images for analysis in Excel, Numbers, and other applications, plus store data in the cloud. HOBObconnect also lets you quickly set up audible alarm notifications, so you're immediately alerted to any problems.



Features:

- Communicates to HOBO MX data loggers using Bluetooth (LE) technology
- No internet connection required
- Set data logger's name, password, logging rate, alarm threshold, start and stop time
- Automatically upload data to Onset's cloud-based HOBOLink software to store and merge data files
- Configure and clear audible alarms
- Page the data logger
- Quickly download and view data
- Export and share data as CSV, TXT, XLSX, or HOBO files