



HOBO® U24-001 Data Logger

Fresh Water Conductivity Data Logger

This high-accuracy conductivity data logger is a cost-effective way to collect water quality data. The HOBO U24 measures and records both conductivity and temperatures in streams, lakes, and other freshwater sources. This logger is recommended for monitoring aquifers for saltwater intrusion and road and agricultural runoff. This product's open access to its sensor simplifies cleaning and maintenance. The HOBO U24's non-contact sensor minimizes measurement errors related to drift. In addition, the logger features software-based drift compensation.


The HOBO U24 Conductivity data logger features a non-contact sensor with a Titanium Pentoxide coating. This coating prevents the sensor from coming in contact with the water, which in turn prevents tarnishing or corrosion associated with traditional electrode sensors. This sensor coating is also inert, enabling fouling to be easily wiped off the sensor.

Key Advantages:

- Non-contact sensor provides long life and less measurement drift
- Provides easy access to sensor for cleaning and shedding air bubbles
- HOBOWare Pro software enables start/end-point calibration to compensate for any fouling and provides easy conversion to specific conductance and salinity
- USB optical interface provides high-speed, reliable data offload in wet environments
- Compatible with the HOBO Waterproof Shuttle for easy and reliable data retrieval and transport



HOBO U24-001 Data Logger Specifications

Measurements	Actual Conductivity, Temperature, Specific Conductance at 25°C (calculated)
Conductivity Calibrated Measurement Ranges	Low Range: 0 to 1,000 µS/cm Full Range: 0 to 10,000 µS/cm
Conductivity Calibrated Range - Temperature Range	5° to 35°C (41° to 95°F)
Conductivity Extended Ranges	Low Range: 0 to 2,500 µS/cm Full Range: 0 to 15,000 µS/cm
Temperature Measurement Range	-2° to 36°C (28° to 97°F)
Specific Conductance Accuracy (in Calibrated Range)	Low Range: 3% of reading, or 5 µS/cm, and Full Range: 3% of reading, or 20 µS/cm, whichever is greater, using Conductivity Data Assistant and calibration measurements
Conductivity Resolution	1 µS/cm
Temperature Accuracy	0.1°C (0.2°F) at 25°C (77°F)
Temperature Resolution	0.01°C (0.02°F)
Conductivity Drift	Less than 3% sensor drift per year, exclusive of drift from fouling
Response Time	1 second to 90% of change (in water)
Operating Range	-2° to 36°C (28° to 97°F) - non-freezing
Memory	18,500 temperature and conductivity measurements when using one conductivity range; 11,500 sets of measurements when using both conductivity ranges (64 KB total memory)
Sample Rate	1 second to 18 hrs, fixed or multiple-rate sampling with up to 8 user-defined sampling intervals
Clock Accuracy	±1 minute per month
Battery	3.6 Volt lithium battery
Battery Life	3 years (at 1 minute logging)
Maximum Depth	70 m (225 ft)
Weight	193 g (6.82 oz), buoyancy in freshwater: -59.8 g (-2.11 oz)
Size	3.18 cm diameter x 16.5 cm, with 6.3 mm mounting hole (1.25 in. diameter x 6.5 in., 0.25 in. hole)
Wetted Housing Materials	Delrin®, epoxy, stainless steel retaining ring, polypropylene, Buna rubber O-ring, titanium pentoxide (inert coating over sensor)
Environmental Rating	IP68
	The CE Marking identifies this product as complying with all relevant directives in the European Union (EU).

