U24-002-C

HOBO Saltwater Conductivity/Salinity Data Logger

Salt Water

A cost-effective data logger for measuring salinity, conductivity, and temperature in saltwater environments with relatively small changes in salinity (±5,000 µS/cm).

Important Information
Requires HOBOware Pro software and either a U-DTW-1 Waterproof Shuttle or the Base-U-4 Optic USB Base Station for configuration and data offload. Please see compatible items below.

Supported Measurements

Conductivity/Salinity, Water Temperature

Features

- Non-contact sensor provides long life
- Easy access to sensor for cleaning and shedding air bubbles
- Two user-selectable ranges provide measurements from 100 to 55,000 uS/cm.
- Delrin housing will not corrode in saltwater
- HOBOware Pro software enables start/end-point calibration to compensate for any fouling and provides easy conversion to specific conductance and salinity using the Practical Salinity Scale 1978 (PSS-78)
- USB optical interface provides high-speed, reliable salinity data offload in wet environments
- Compatible with the HOBO Waterproof Shuttle for easy and reliable data retrieval and transport
- Non-contact sensor with titanium pentoxide coating keeps the sensor from coming in contact with the water, thereby preventing tarnishing or corrosion associated with traditional electrode sensors; sensor coating is inert, so fouling can be wiped off easily

What's in the box

- HOBO U24-002-C Conductivity Data Logger
- Communications window protective cap

HOBO Saltwater Conductivity/Salinity Data Logger (U24-002-C) Specifications

Measurements	Actual Conductivity, Temperature, Specific Conductance at 25C (calculated), Salinity (calculated using PSS-78, the Practical Salinity Scale 1978)
Conductivity Measurement Ranges	Low range: 100 to 10,000 uS/cm High range: 5000 to 55,000 uS/cm
Conductivity Calibrated Range - Temperature Range	5° to 35°C (41° to 95°F)
Conductivity Extended Ranges	Low range: 100 to 10,000 uS/cm High range: 5000 to 55,000 uS/cm (readings below these ranges reported as 0)
Temperature Measurement Range	-2° to 36°C (28° to 97°F)
Specific Conductance Accuracy (in Calibrated Range using Conductivity Assistant and Calibration Measurements)	Low range: 3% of reading or 50 µS/cm, whichever is greater High range: 5% of reading, in waters within a range of ±3,000 µS/cm; waters with greater variation can have substantially greater error
Conductivity Resolution	2 uS/cm (typical)
Temperature Accuracy	0.1°C (0.2°F) at 25°C (77°F)
Temperature Resolution	0.01°C (0.02°F)
Conductivity drift	Up to 12% sensor drift per month, exclusive of drift from fouling. Monthly start- and end-point calibration should be used with the HOBOware Conductivity Assistant to achieve the specified Specific Conductance accuracy.
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 life	3 years (@ 1 min logging)
Maximum depth	70 m (225')
Weight	193 gm (6.82 ounces), buoyancy in freshwater: -59.8 gm (-2.11 ounces)
Size	3.18 cm diameter x 16.5 cm, with 6.3 mm mounting hole (1.25" diameter x 6.5", ¼" hole)
Wetted housing materials	Delrin®, epoxy, stainless steel retaining ring, polypropylene, Buna rubber O-ring, titanium pentoxide (inert coating over sensor) – all materials are suitable for long-term use in saltwater.
Environmental Rating	IP68

CE