



HOBO® U22-001 Data Logger

Water Temperature Pro v2 Data Logger

The HOBO Water Temp Pro v2 is durable with 12-bit resolution. Complete with a precision sensor for $\pm 0.2^{\circ}\text{C}$ accuracy, this logger measures temperatures between -40°C and 70°C (-40°F to 158°F) in air and up to 50°C (122°F) in water. Its waterproof, streamlined case allows for extended deployment in fresh or salt water. Moreover, the Water Temp Pro v2's optical USB interface makes it possible to offload data even while the logger is wet or underwater. A solar radiation shield is required to obtain accurate air temperature measurements in sunlight (RS1 Solar Radiation Shield, assembly required; or M-RSA pre-assembled Solar Radiation Shield).



Key Advantages:

- Research-grade measurements at an affordable price
- Waterproof to 120 meters (400 feet)
- Data readout in less than 30 seconds via fast Optic USB interface
- Compatible with HOBOWare and HOBOWare Pro software for logger setup, graphing and analysis

HOBO U22-001 Data Logger Specifications

Operation range[†]: -40° to 70°C (-40° to 158°F) in air; maximum sustained temperature of 50°C (122°F) in water

Accuracy: ±0.21°C from 0° to 50°C (±0.38°F from 32° to 122°F)

Resolution: 0.02°C at 25°C (0.04°F at 77°F)

Response time: (90%) 5 minutes in water; 12 minutes in air moving 2 m/sec (typical)

Stability (drift): 0.1°C (0.18°F) per year

Real-time clock: ± 1 minute per month 0° to 50°C (32° to 122°F)

Battery: 2/3 AA, 3.6 Volt Lithium, factory-replaceable ONLY

Battery life (typical use): 6 years with 1 minute or greater logging interval

Memory (non-volatile): 64K bytes memory (approx. 42,000 12-bit temperature measurements)

Weight: 42 g (1.5 oz)

Dimensions: 3.0 cm (1.19 in.) maximum diameter, 11.4 cm (4.5 in.) length; mounting hole 6.3 mm (0.25 inches) diameter

Wetted materials: Polypropylene case, EPDM® o-rings, stainless steel retaining ring

Buoyancy (fresh water): +13 g (0.5 oz.) in fresh water at 25°C (77°F); +17 g (0.6 oz.) with optional boot

Waterproof: To 120 m (400 ft.)

Shock/drop: 1.5 m (5 ft.) drop at 0°C to 70°C (32°F to 150°F)

Logging interval: Fixed-rate or multiple logging intervals, with up to 8 user-defined logging intervals and durations; logging intervals from 1 second to 18 hours. Refer to HOBOWare software manual.

Launch modes: Immediate start and delayed start

Offload modes: Offload while logging; stop and offload

Battery indication: Battery voltage can be viewed in status screen and optionally logged in datafile. Low battery indication in datafile.

NIST certificate available: for additional charge

Environmental Rating: IP68

The CE Marking identifies this product as complying with all relevant directives in the European Union (EU).

[†]**IMPORTANT**: The plastic case will become brittle at temperatures lower than -20°C. If the logger is deployed in a location where the temperature drops below -20°C, make sure the logger remains stationary and is not pulled on or struck. Return the logger to above -20°C before handling.