



## HOBO<sup>®</sup> U22-001 Data Logger

### Water Temperature Pro v2

A durable water temperature data logger with 12-bit resolution. Complete with a precision sensor for  $\pm 0.2^{\circ}\text{C}$  accuracy, this logger measures temperatures between  $-40^{\circ}\text{C}$  and  $70^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $158^{\circ}\text{F}$ ) in air and up to  $50^{\circ}\text{C}$  ( $122^{\circ}\text{F}$ ) in water. Its waterproof, streamlined case allows for extended deployment in freshwater or saltwater. And its optical USB interface lets you offload data even while the logger is wet or under water. A solar radiation shield is required to obtain accurate air temperature measurements in sunlight (either the assembly-required RS1 Solar Radiation Shield or the pre-assembled M-RSA 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**<sup>†</sup>: -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).

<sup>†</sup>**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.

## Contact Us

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