



HOBO U20-001-04-Ti Saltwater Level Data logger (0-4m) Titanium

Product Images



Short Description

An accurate, low cost data logger designed to record water level fully compensated for barometric pressure in wells, streams, lakes etc. Range is from 0-4m/0-13 feet.

Description

The HOBO U20-001-04-Ti Water Level data logger features high accuracy at a great price and ease-of-use, with no cumbersome vent tubes or desiccants to maintain. This data logger is ideal for recording water levels and temperatures in saltwater/brackish wetlands and tidal areas.

Key Features

- Lightning protection - no long signal wires, and electronics are shielded in a metal housing
- HOBOWare Pro software provides easy conversion to accurate water level reading, fully compensated for barometric pressure, temperature, and water density
- Multiple-rate sampling allows faster sampling at critical times such as when pumping starts or stops

- Available in four depth ranges
- Ideal for use in wells, streams, lakes, wetlands, and tidal areas
- No-vent-tube design for easy reliable deployment
- Available in stainless and titanium versions
- Durable ceramic pressure sensor
- 3-point NIST-traceable calibration certificate included.

Supports the following measurements Absolute Pressure, Barometric Pressure, Temperature and Water Level.

IMPORTANT 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. See Connectivity Options above.

Additional Information

Country of Manufacture	United States
Explanation	<p>Pressure and Water Level Measurements U20-001-04 and U20-001-04-Ti</p> <p>Operation Range 0 to 145 kPa (0 to 21 psia); approximately 0 to 4 m (0 to 13 ft) of water depth at sea level, or 0 to 7 m (0 to 23 ft) of water at 3,000 m (10,000 ft) of altitude</p> <p>Factory Calibrated Range 69 to 145 kPa (10 to 21 psia), 0° to 40°C (32° to 104°F)</p> <p>Burst Pressure 310 kPa (45 psia) or 18 m (60 ft) depth</p> <p>Water Level Accuracy* Typical error: ±0.075% FS, 0.3 cm (0.01 ft) water Maximum error: ±0.15% FS, 0.6 cm (0.02 ft) water</p> <p>Raw Pressure Accuracy** ±0.3% FS, 0.43 kPa (0.063 psi) maximum error</p> <p>Resolution <0.014 kPa (0.002 psi), 0.14 cm (0.005 ft) water</p> <p>Pressure Response Time (90%***) <1 second; measurement accuracy also depends on temperature response time</p> <p>Temperature Measurements (All Models)</p> <p>Operation Range -20° to 50°C (-4° to 122°F)</p> <p>Accuracy ±0.44°C from 0° to 50°C (±0.79°F from 32° to 122°F), see Plot A in manual</p> <p>Resolution 0.10°C at 25°C (0.18°F at 77°F), see Plot A in manual</p> <p>Response Time (90%) 5 minutes in water (typical)</p> <p>Stability (Drift) 0.1°C (0.18°F) per year</p> <p>Logger</p> <p>Real-time Clock ± 1 minute per month 0° to 50°C (32° to 122°F)</p> <p>Battery 2/3 AA, 3.6 Volt lithium, factory-replaceable</p> <p>Battery Life (Typical Use) 5 years with 1 minute or greater logging interval</p> <p>Memory (Non-volatile) 64K bytes memory (approx. 21,700 pressure and temperature samples)</p> <p>Weight Stainless steel models: approximately 210 g (7.4 oz) Titanium models: approximately 140 g (4.8 oz)</p> <p>Dimensions 2.46 cm (0.97 inches) diameter, 15 cm (5.9 inches) length; mounting hole 6.3 mm (0.25 inches) diameter</p> <p>Wetted Materials 316 stainless steel, Viton® o-rings, acetyl cap, ceramic sensor</p> <p>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 the HOBOWare software manual.</p> <p>Launch Modes Immediate start and delayed start</p> <p>Offload Modes Offload while logging; stop and offload</p> <p>Battery Indication Battery voltage can be viewed in status screen and optionally logged in datafile. Low battery indication in datafile.</p> <p>Environmental Rating IP68</p> <p>The CE Marking identifies this product as complying with all relevant directives in the European Union (EU).</p> <p>* Water Level Accuracy: With accurate reference water level measurement, known water density, accurate Barometric Compensation Assistant data, and a stable temperature environment. ** Raw Pressure Accuracy: Absolute pressure sensor accuracy includes all sensor drift, temperature, and hysteresis-induced errors. *** Changes in Temperature: Allow 10 minutes in water to achieve full temperature compensation of the pressure sensor. Maximum error due to rapid thermal changes is approximately 0.5%.</p>
	Ideal For
Brand	HOBO
Channel(s)	2
HOBO Product Series	U20
Typical applications	Environmental (Outdoor), Field Research, Water Quality
Measurements	Barometric Pressure, Pressure, Water Level, Water Temperature

Additional Options

HOBOWare Pro Software Options	HOBOWare Pro on USB Drive (USB Cable Included)
	HOBOWare Pro on CD (USB Cable Included)
	HOBOWare Pro - Download Only (USB Cable NOT Included)
Connectivity Options	HOBO Universal Optic USB Base Station Base-U-4 (includes Couplers)
	Waterproof Optic Data Shuttle U-DTW-1 (requires HOBOWare Pro)
Well Cap for Mounting HOBOWare Pro Loggers in Wells	WELL-CAP-01