



HOBO U20-001-04 Fresh Water Level Data logger (0-4m)

Product Images



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.


Features:

- The Water Level logger can also be used in air to record barometric pressure.
- Use the Titanium models in salt water.
- Download to the Waterproof Shuttle or Base Station.
- The no-vent design eliminates installation/maintenance issues and errors associated with vent tubes, desiccant maintenance, water ingress etc.

Measures 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 below.

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	Onset HOBO
Channel(s)	2
Onset Product Series	U20
Typical applications	Environmental (Outdoor), Field Research, Water Quality
Measurements	Barometric Pressure, Pressure, Temperature, Water Level

Additional Options

Connectivity Options	HOBO Universal Optic USB Base Station Base-U-4 (includes Couplers)
	Waterproof Optic Data Shuttle U-DTW-1 (requires HOBOWare Pro)
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)
Well Cap for Mounting HOBO Loggers in Wells	WELL-CAP-01