

underwater

HOBO®

Water Level Logger

Now in 3 ranges (30, 100, 250 feet)



Size: 2.5 cm x 15 cm (0.97" x 5.9")
Weight: 210 gm (7.4 oz)

The HOBO Water Level Logger features high accuracy at a great price, and HOBO ease-of-use. It is ideal for recording water levels and temperatures in wells, streams, lakes, wetlands and tidal areas*. The completely self-contained logger means there are no cumbersome vent tubes or desiccants to maintain. The Water Level logger can also be used in air to record barometric pressure data for accurate compensation when needed.

Water Level Specifications

Model	Range	Factory Calibrated Range (0 to 40°C; 32 to 104°F)	Accuracy (Typical Error) ($\pm 0.1\%$ FS)**	Resolution	Burst Pressure
U20-001-01	0-9m (0-30 ft); 0-207 kPa (0-30 psia)	69 to 207 kPa (10-30 psia)	± 2.1 cm (0.07 ft) ($\pm 0.1\%$ FS)	0.21 cm (0.007 ft)	310 kPa (45 psia); 18m (60 ft) depth
U20-001-02	0-30m (0-100 ft); 0-400 kPa (0-58 psia)	69 to 400 kPa (10-58 psia)	± 4.1 cm (0.13 ft) ($\pm 0.1\%$ FS)	0.41 cm (0.013 ft)	500 kPa (72.5 psia); 40.8m (134 ft) depth
U20-001-03	0-76m (0-250 ft); 0-850 kPa (0-123 psia)	69 to 850 kPa (10 to 123 psia)	± 8.7 cm (0.28 ft) ($\pm 0.1\%$ FS)	0.87 cm (0.028 ft)	1200 kPa (174 psia); 112m (368 ft) depth

Note—All depth specifications are for fresh water at sea level.

Temperature Specifications (all models)

Model	Range	Accuracy	Resolution	Response Time	Stability (Drift)
All models	-20° to 50°C (-4° to 122°F)	$\pm 0.37^\circ\text{C}$ at 20°C (0.67°F at 68°F); $\pm 0.5^\circ\text{C}$ (0.9°F) over -5° to 50°C (23° to 122°F)	0.1°C @ 20°C (0.18°F at 68°F); 10-bit; 0.5°C (0.9°F) over -5° to 50°C (23° to 122°F)	3.5 minutes in water, typical to 90%	$\leq 0.1^\circ\text{C}$ (0.18°F) per year

* Additional protection recommended for salt water deployment.

** Typical maximum error over the full temperature and pressure calibrated range.

Features

HOBOware™ software provides easy conversion to accurate water level readings, fully compensated for barometric pressure, temperature and water density

Use either an extra U20-001-01 water level logger or a HOBO Weather Station for barometric compensation when needed (one barometric data set can be used with all water level loggers in that area)

HOBOware provides comprehensive graphing, analysis and reporting

No-vent-tube design eliminates installation/maintenance issues and errors associated with vent tubes, such as bulkiness, desiccant maintenance, water in tubes, cuts and decontamination between deployments.

Fully sealed housing insures many years of trouble-free operation

Optical/USB interface for years of reliable data offload in wet environments—no mechanical or elastomer connectors to fail

Streamlined housing for snag-free deployment in wells

Lightning protection—no long signal wires, and electronics are shielded in stainless steel housing

Durable ceramic pressure sensor

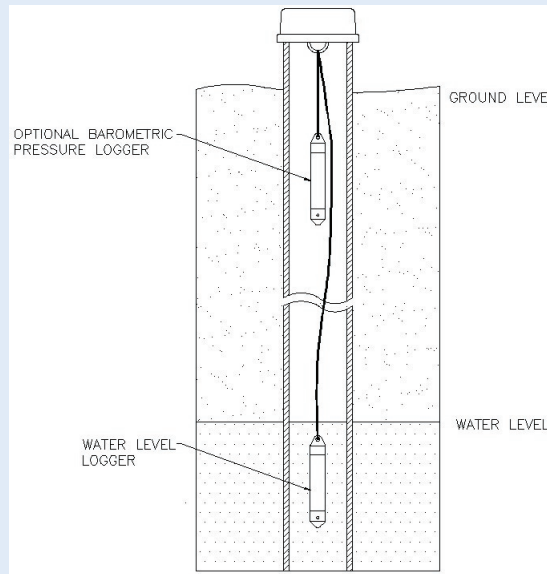
Multiple-rate sampling allows faster sampling at critical times such as when pumping starts or stops

Includes calibration certificate of accuracy versus NIST-traceable standards at three pressure points distributed through the range

Patented technology (U.S. Patent 6,826,664)

General Specifications

Memory	64k-bytes non-volatile memory – 21,700 combined pressure and temperature measurements
Event types stored to data file during logging	Host PC connection, low battery
Environment	Waterproof; suitable for deployment in water or air, case materials resistant to fuels, solvents and lubricants. Additional protection recommended for salt water deployment.
Wetted Materials	316 Stainless Steel, Viton® o-rings, acetyl cap, ceramic sensor
Battery Life	5 years typical with 1-minute or longer logging interval; battery is factory replaceable
Battery Status Indication	Battery status displayed at launch or with status screen; battery voltage can be logged
Operation Indicator	Red LED in communications window
Sampling Intervals	1 second to 18 hours; fixed- or multiple-rate sampling—up to 8 user-specified sampling intervals
Start Modes	Immediate start, Programmable start time/date
Offload Modes	Offload while logging or stop and offload
Real-Time Clock	±1 minute per month 0° to 50°C (32° to 122°F)



Simple wireline mounting makes it easy to hang logger in wells, hidden from vandals, with no vent cables to worry about.



Compatible with HOBOWare™ for Windows



Compliant with all relevant directives in the European Union (EU).

Optic USB Base Station



Optic USB Base Station offloads full logger in less than 30 seconds

Optical interface to logger eliminates unreliable mechanical connectors

Easy USB connection to PC

Operating Range: 0° to 50°C (32° to 122°F);
0 to 95% RH, non-condensing, non-fogging

Offload Speed: <30 seconds for full 64k offload

HOBO Water Level Logger Ordering

Description	Part No.
HOBO Water Level Logger—0-30 ft <i>(may also be used for barometric pressure)</i>	U20-001-01
HOBO Water Level Logger—0-100 ft	U20-001-02
HOBO Water Level Logger—0-250 ft	U20-001-03
Optic USB Base Station	BASE-U-3
HOBOWare Starter Kit (PC)	BHW-PC
1/16" Teflon-coated stainless steel cable	
50'	CABLE-1-50
300'	CABLE -1-300
Crimp sleeve 12 pack for the above cables	CABLE-1-CRIMP

Note: HOBOWare™ for Windows (version 2.0), and an Optic USB Base Station are required to operate the U20-001-0X loggers.