



KIT-S-U20-01

Water Level Data Logger Starter Kit (30')

Combining high accuracy water level measurements with out-of-the-box convenience, this money-saving kit includes everything needed to start logging right away. It is ideal for monitoring water levels and temperatures in wells, streams, lakes and freshwater wetlands.

This kit includes:

U20-001-01 HOBO data logger (30' range) BASE-U-4 base station with the required coupler BHW-PRO HOBOWare Pro software.



Like other HOBO Water Level Data Loggers, the 30-foot version offers exceptional value and ease-of-use, with no cumbersome vent tubes or desiccants to maintain.

Supported Measurements:

Absolute Pressure, Barometric Pressure, Temperature and Water Level

Key Advantages:

- Lightning protection - no long signal wires, and electronics are shielded in stainless steel housing (see the Water Level logger sensor location drawing)
- HOBOWare Pro software provides easy conversion to accurate water level reading, fully compensated for barometric pressure (see demo), temperature, and water density (use barometric pressure data from nearby weather station).
- Multiple-rate sampling (see demo) 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
- Durable ceramic pressure sensor

KIT-S-U20-01 Specifications

Pressure Sensor

Operation range: 0 to 207 kPa (0 to 30 psia); approximately 0 to 9 m (0 to 30 ft) of water depth at sea level, or 0 to 12 m (0 to 40 ft) of water at 3,000 m (10,000 ft) of altitude

Factory calibrated range: 69 to 207 kPa (10 to 30 psia), 0° to 40°C (32° to 104°F)

Burst pressure: 310 kPa (45 psia) or 18 m (60 ft) depth

Water level accuracy*: Typical error - 0.05% FS, 0.5 cm (0.015 ft) water

Maximum error: - 0.1% FS, 1.0 cm (0.03 ft) water

Raw pressure accuracy:** 0.3% FS, 0.62 kPa (0.09 psi) maximum error

Resolution: < 0.02 kPa (0.003 psi), 0.21 cm (0.007 ft) water

Pressure response time: 90% < 1 second

Thermal response time (90%)†: Approximately 10 minutes in water to achieve full temperature compensation of the pressure sensor

* With accurate reference water level measurement and Barometric Compensation Assistant data

** Absolute pressure sensor accuracy includes all pressure drift, temperature, and hysteresis-induced errors

† Maximum error due to rapid thermal changes is approximately 0.5%

Temperature Sensor

Operation range: -20° to 50°C (-4° to 122°F)

Accuracy: 0.37°C at 20°C (0.67°F at 68°F), see Plot A

Resolution: 0.1°C at 20°C (0.18°F at 68°F) (10-bit)

Response time (90%): 3.5 minutes in water (typical)

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

Logger

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

Battery life (typical use): 5 years with 1 minute or greater logging interval

Memory (non-volatile): 64K bytes memory (approx. 21,700 pressure and temperature samples)

Dimensions: 2.46 cm (0.97 inches) diameter, 15 cm (5.9 inches) length; mounting hole 6.3 mm (0.25 inches) diameter

Weight: Approximately 210 g (7.4 oz)

Wetted materials: 316 stainless steel, Viton® o-rings, acetyl cap, ceramic sensor

Shock/drop: Logger is sensitive to shocks. Handle with care and avoid any impact. Always use proper packaging when shipping the logger.

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.

Environmental Rating: IP68

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



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