



## HOBO® KIT-D-U20-01

### Water Level Data Logger Deluxe 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, as well as barometric pressure.

This kit includes:

- U20-001-01 HOBO data logger (30' range)
- U20-001-04 HOBO data logger (13' range) for Barometric Pressure
- U-DTW-1 HOBO waterproof shuttle with 5 interchangeable couplers
- U20-CASE-1 carrying case
- BHW-PRO-CD HOBOWare Pro software.

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

#### 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.
- Multiple-rate sampling (see demo) allows faster sampling at critical times such as when pumping starts or stops.
- Available in 4 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



## HOBO KIT-D-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).

## Contact Us

Sales (8am to 5pm ET, Monday through Friday)

- ▶ Email [sales@onsetcomp.com](mailto:sales@onsetcomp.com)
- ▶ Call 1-508-759-9500
- ▶ In U.S. toll free 1-800-564-4377
- ▶ Fax 1-508-759-9100

Technical Support (8am to 6pm ET, Monday through Friday)

- ▶ Contact Product Support [www.onsetcomp.com/support/contact](http://www.onsetcomp.com/support/contact)
- ▶ Call 1-508-759-9500
- ▶ In U.S. toll free 1-877-564-4377

Onset Computer Corporation  
470 MacArthur Boulevard  
Bourne, MA 02532