

HOBO Water Level Data Logger Starter Kit (30') (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

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

Notices

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

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