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DATASHEET

Mini Temperature and Depth Logger

AQUA*logger*® 520

The AQUA*logger* ® 520 delivers temperature and pressure-derived depth data in a compact, autonomous package. Engineered for versatility, it eliminates the complexity of wired systems and external power, serving as a robust alternative to conventional thermistor strings. Rated to 1,000 m, it's the ideal tool for oceanographic research, hydrographic surveys, and environmental impact assessments.

KEY FEATURES

- Self-contained temperature and pressure logging
- Pressure to depth conversion
- Compact wireless design
- Up to 5 years of battery life
- User-friendly data upload
- Flexible Sampling Regimes: Continuous and burst sampling options with rates up to 1 Hz and burst averaging

APPLICATIONS

- Oceanographic and environmental research
- Environmental impact assessments
- Temperature distribution surveys
- Long-term time series at fixed observatories

TECHNICAL SPECIFICATIONS

Pressure sensor	Piezo-resistive bridge | 2 bar (~10 m), 4 bar (~30 m), 5 bar (~40 m), 10 bar (~100 m), 50 bar (~500 m), 100 bar (~1,000 m) | ±0.2% FS accuracy (including non-linearity, hysteresis, zero offset and end value deviation (corresponds to measured error per IEC 61298-2), 0.01% FS resolution
Temperature sensor	Thermistor | -2 to +35°C standard range | ±0.05°C accuracy, 0.001°C resolution | Time constant - better than 5 seconds to 63% of the change in value (high-speed temperature probe with 1 second time constant also available)
Parameters	Pressure | Temperature | Battery Voltage | Depth (Derived parameter)
Memory	> 250,000 parameters readings in non-volatile FLASH
Logging lifetime	Typically 5 years, depending on regime
Data retention	>10 years
Sampling	Burst or continuous
Acquisition rate	Up to 1 Hz
Burst averaging	Bursts may be averaged to a single data value
Communication	Logger communication: Wireless system via separate drop-in reader | Reader communication: USB, bus powered
Battery	3.6V custom lithium 'AA' cell -technician replaceable
Software	AQUA*talk*® for configuration and download
Maximum depth	1,000 m
Housing	Acetal
Weight	190 g (6.4 oz) in air, 41 g (1.5 oz) in water
Dimensions	Diameter: 32 mm (1.3") | Length: 200 mm (7.9")
Attachment	Single or double-point configurations featuring integrated screw holes and supplied shackles for rope, cable, or carabiner mounting
MODELS	
AQUA*logger*® 520T	Temperature logger | Depth rated to 1,000 m
AQUA*logger*® 520PT	Pressure and temperature logger | Depth rated to 1,000 m (sensor dependent)
AQUA*logger*® 520HST	High-speed temperature logger | Depth rated to 1,000 m
AQUA*logger*® 520PHST	Pressure and high-speed temperature logger, depth depending on pressure sensor

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