

DATASHEET

AQUAlogger® 310TY

Turbidity logger



KEY FEATURES

- Measure turbidity to over **10,000 FTU**
- Convert turbidity to suspended sediment concentration with the SSC Converter tool
- Optional automatic wipers
- 3 levels of calibration available
- Quick start by swiping a magnet against the logger
- Shake the logger to check the status
- Flexible sampling - options for continuous and burst sampling, delayed start, variable sample rates, intermittent logging and averaging

APPLICATIONS

- Coastal erosion studies
- Oceanographic and environmental research
- Dredge monitoring
- Suspended sediment monitoring
- Environmental impact assessments

MODELS

- Standard loggers - turbidity; turbidity, temperature & pressure
- Deep water loggers - to 6000m
- 'Select' loggers - wide range of pressure sensors, including high accuracy options



Sensor specification

Turbidity	Optical backscatter sensor Light source wavelength: 880nm Sensing distance (from window): <5 cm (approx.) Maximum range: over 10,000 FTU 3 levels of calibration available
Pressure	11 bar (~100 m) - standard 5 bar (~40 m), 51 bar (~500 m), 101 bar (~1000 m) - select range 201 bar (~2000 m), 401 bar (~4000 m), 601 bar (~6000 m) - deep water range ±0.2% FS accuracy*, 0.01% FS resolution High accuracy sensors available in custom models
Temperature	±0.05°C accuracy, 0.001°C resolution -2 to +35°C standard range



* Including non-linearity, hysteresis, zero offset and end value deviation (corresponds to measured error per IEC 61298-2).

Logger specification

Parameters	Turbidity, battery voltage - all models Pressure, temperature - selected models Suspended sediment concentration (all models), depth (only on models with pressure) - derived parameters
Memory	64 MB in non-volatile FLASH (standard) Up to 2 GB (upgrade)
Logging lifetime	Depends on logging parameters - up to 1 year
Data retention	>20 years
Sampling	Burst or continuous
Acquisition rate	Up to 8 Hz depending on sensors
Burst averaging	Flexible averaging of multiple samples within burst
Communication	USB and either RS232 or RS422 Optional wireless communication upgrade
External interfaces	Compatible comms modules: display, optical modem, acoustic modem
Battery	4 x AA cells - selected from alkaline, lithium or NiMH
Software	AQUAtalk for configuration and download, including SSC Converter
Maximum depth	1000 m - standard model 6000 m - deep water model
Material	Acetal - standard model Duplex, with sacrificial anode - deep water model
Weight	<3 kg in air - standard model <5 kg in air - deep water model
Dimensions	Diameter - 60 mm, Length - 360 mm

Models

AQUAlogger 310TY	Turbidity logger, maximum 1000 m depth
AQUAlogger 310TYPT	Turbidity, pressure and temperature, maximum 1000 m depth (sensor dependent)
AQUAlogger 310TYdeep	Turbidity logger, maximum 6000 m depth
AQUAlogger 310TYPTdeep	Turbidity, pressure and temperature, maximum 6000 m depth (sensor dependent)

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