



fastCTDplus Turbidity

Fast response multi-parameter profiler

An evolution of the miniCTD, the fastCTDplus multi-parameter profiler is designed to deliver the highest quality CTD and Turbidity observations at fast drop rates.

A conductivity cell designed for optimum flow-through, a fast-response thermistor temperature sensor and 0.01% pressure sensor together with a combined nephelometer and OBS turbidity sensor, all synchronously sampling at up to 32Hz to deliver the highest quality profiles in a lightweight and robust package.

- Multi-parameter profiler
 - CTD, Salinity, Density, Sound Velocity
 - Dual Optical Backscatter (OBS) and Nephelometer Turbidity Sensor
 - Up to 32Hz sampling rate
- Optional Bluetooth connectivity
- Depth rated to 6,000m
- Dedicated PC software

DATA SHEET

Product Details



MULTI-PARAMETER
CTD



OPTICAL



SOUND
SPEED



DATALOG
X2 SOFTWARE



Bluetooth
Option

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Sensors

Turbidity

Linear Range Nephelometer: 0 to >1,000 NTU - linear response
OBS: 0 to >4,000 NTU - linear response 1 & 2
1 depending on suspended material
2 >4,000 NTU has a non-linear monotonic response that allows derivation of higher values using look-up tables
secondary calibration

Linearity 0.99 R2

Minimum Detection Level 0.03 NTU (Nephelometer)

Conductivity

Range 0-80 mS/cm

Resolution 0.001 mS/cm

Accuracy ±0.01 mS/cm

Response 30 milliseconds

Temperature

Range -5 °C - +35 °C

Resolution 0.001 °C

Accuracy ±0.01 °C

Response 50 milliseconds (T1)

Pressure

Range 10, 20, 30, 50, 100, 200, 300, 400 & 600 bar

Resolution 0.001% full scale

Accuracy ±0.01% full scale

Response 1 millisecond

Electrical

Internal 1 x D Cell 1.5V Alkaline or 3.6V Lithium

External if fitted with a connector
9-28V DC isolated

Power <250mW

Connector SubConn MCBH10F (if fitted)

Physical

Materials Titanium housing

Depth Rating 6,000m

Instrument Size ø54mm x 510mm

Weight in air 2.6kg / 4.9kg including frame

Weight in water 1.5kg

Sampling Modes

Continuous Regular and synchronous data collection from all sensors up to 32Hz.

Profile Data is logged as the instrument descends (or rises), by a user defined pressure difference, through the water column.

Rapid Once the instrument is set to run mode no data is logged until a programmed trigger depth is reached (e.g. 2 meters below the surface)

Completely programmable, the device can be set to record down casts data only, for example, when the probe stops descending and rises by a defined amount logging is stopped.

Communications

The instrument is designed to operate autonomously. Setup and data extraction can be performed using a SubConn connector or via an optional Bluetooth connection with a PC. Multiple profiles can be recorded in the instrument by switching it on then off using the connector switch plug or magnetic switch key for Bluetooth operation. The instrument can also operate in real time or cabled comms

Bluetooth auto-pairing and discovery make connecting to the instrument simple and robust.

Direct Reading

RS232 Up to 200m of cable

Baud Rate 38400 to 460800

Protocol 8 data bits, 1 stop bit, no parity, no flow control

Memory

Solid state non-volatile Flash memory

Capacity 10 million lines of data (equivalent to 5,000 profiles to 1,000m with a 1m profile resolution)

Software

Supplied with DataLog X2 Windows based software, for instrument setup, control, data extraction and display.

Ordering

Titanium Housing

0660036T1-TU-XX fastCTDplus Turbidity Profiler
6,000m with connector

0660036T1-TU-BT-XX fastCTDplus Turbidity Profiler
2,000m with Bluetooth

Where

XX Pressure sensor options
10, 20, 30, 50, 100, 200, 300, 400 & 600 Bar

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