miniCTD

The miniCTD has been developed to provide a cost effective tool for the collection of CTD Profiles, without compromising the quality of the data. Ideally suited to ROV, coastal, or small boat applications, the miniCTD will appeal to survey companies, military and academia alike, being both simple to use & easy to handle.

Sensors

The miniCTD is fitted with Valeport's unique digital, high stability conductivity sensor, a PRT temperature sensor, and strain gauge pressure transducer. In addition to the measured parameters listed, Salinity and Density values are also calculated by the software.

Conductivity	
Range:	0 - 80 mS/cm
Resolution:	0.001mS/cm
Accuracy:	±0.01mS/cm

Temperature	
Range:	-5°C to +35°C
Resolution:	0.001°C
Accuracy:	±0.01°C

Pressure	
Range:	5, 10, 30, 50, 100, 300 or 600 Bar
Resolution:	0.001% range
Accuracy:	±0.05% range

Data Acquisition

The miniCTD features a selection of pre-programmed sampling regimes, covering many standard applications. Data may be sampled from 1 to 8Hz, making it suitable for rapid profiling or for continuous measurement at a fixed point

Sampling Modes

Continuous:	Regular output from all sensors at 1, 2, 4 or 8Hz.
Profile:	Logs data as the device falls (or rises) by a defined amount through the water column.

Communications

The instrument will operate autonomously, with setup and data extraction performed by direct communications with PC before and after deployment. It also operates in real time, with a choice of communication protocols fitted as standard and selected by pin choice on the output connector:

RS232	Up to 200m cable, direct to serial port	
RS485	Up to 1000m cable	
Baud Rate:	4800 - 460800	
Protocol:	8 data bits, 1 stop bit, No parity, No flow control	
	Bluetooth:	Bluetooth logger and communication set available for cable free data recovery (500m rated)

Memory

The miniCTD is fitted with a solid-state, non-volatile Flash memory, capable of storing over 10 million lines of data (equivalent to 10,000 profiles to 500m at 1m profile resolution).

Electrical

Internal:	1x C cell, 1.5V alkaline or 3.6V lithium
External:	9 – 28V DC
Power:	<250mW
Battery Life:	approx 30 hours operation (alkaline)
	approx 90 hours operation (lithium)
Connector:	SubConn MCBH10F

Physical

Materials:	Acetal or Titanium housing (as ordered), Polyurethane and ceramic sensor components Stainless steel (316) deployment cage
Depth Rating:	500m (Acetal) and 6000m (Titanium)
	NB: Maximum deployment depth may be limited by transducer range
Instrument Size:	Main Housing 48mmØ
	Sensor Body 54mmØ
	Length 370mm (including connector)
Deployment Cage:	110mmØ x 450mm long
Weight:	1kg (Acetal)
	1.8kg (Titanium)
Shipping:	51 x 42 x 27cm, 10kg

Software

System is supplied with DataLog Express Windows based PC software, for instrument setup, data extraction and display. DataLog Express is license free.

Ordering

0660003-XX	miniCTD Profiler in Acetal Supplied with: • Deployment frame • Switch plug • 3m comms lead • DataLog x2 software • Manual and transit case
0660003BT-XX	miniCTD Profiler in Acetal Supplied with: • Deployment frame • Switch plug • Bluetooth logger/communication set • DataLog x2 software • Manual and transit case
Note:	XX denotes pressure transducer range Select from 5,10, 30 or 50bar
0660004-XX	miniCTD Profiler in Titanium Supplied with: • Deployment frame • Switch plug • 3m comms lead • DataLog x2 software • Manual and transit case
Note:	XX denotes pressure transducer range Select from 100, 300 or 600bar

As part of our policy of continuing development, we reserve the right to alter at any time, without notice, all specifications, designs, prices and conditions of supply of all equipment

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