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: 0.001 mS/cm
Accuracy: ±0.01 mS/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
- 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)
Note: 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 comm 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 50 Bar

0660004-XX miniCTD Profiler in Titanium
Supplied with:
- Deployment frame
- Switch plug
- DataLog x2 software
- Manual and transit case

Note: XX denotes pressure transducer range
Select from 100, 300 or 600 Bar

Datasheet Reference: miniCTD - May 2016