



miniCTD – Fast Profiler



An evolution of the miniCTD, the Fast Profiler has been designed to deliver the highest quality CTD casts at rapid drop rates. A conductivity cell designed for optimum flow-through, a fast response thermistor temperature sensor and a 0.01% pressure sensor synchronously sampling at up to 32Hz deliver the highest quality profiles in a lightweight and robust package.

Add in an integral fluorometer based on Valeport's new Hyperion range, an optional Bluetooth communications module and the miniCTD Fast Profiler offers a unique and versatile solution.



Conductivity

<i>Range:</i>	0 - 80 mS/cm
<i>Resolution:</i>	0.001mS/cm
<i>Accuracy:</i>	±0.01mS/cm
<i>Response:</i>	30 milliseconds

Temperature

<i>Range:</i>	-5°C to +35°C
<i>Resolution:</i>	0.001°C
<i>Accuracy:</i>	±0.01°C
<i>Response:</i>	50 milliseconds

Pressure

<i>Range:</i>	5, 10, 30, 50, 100, 300, 400 or 600 Bar
<i>Resolution:</i>	0.001% range
<i>Accuracy:</i>	±0.05% range
<i>Response:</i>	1 millisecond

Fluorometer (Optional)

<i>Parameter:</i>	Chlorophyll, Rhodamine or Fluoresceine
<i>Excitation:</i>	470 nm
<i>Detection:</i>	696 nm
<i>Dynamic Range:</i>	0-500 µg/l (two gain settings, 0-50, 0-500)
<i>Detection limit:</i>	0.025 µg/l
<i>Resolution:</i>	0.01 µg/l
<i>Linearity:</i>	0.99 R ²
<i>Response Time:</i>	2s

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 metres below the surface). Completely programmable, the device can be set to record down cast 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, with setup and data extraction performed over a Bluetooth connection with a PC before and after deployment. Multiple profiles can be taken by switching the instrument on/off with the magnetic switch key. Bluetooth auto-pairing and discovery make connecting to the instrument simple and robust.

The instrument can also operate in real time, supplied with a traditional SubConn connector with a choice of communication protocols fitted as standard and selected by pin choice on the output connector:

Direct Reading

<i>RS232</i>	Up to 200m cable, direct to serial port via USB adaptor
<i>Baud Rate:</i>	2400 - 115200
<i>Protocol:</i>	8 data bits, 1 stop bit, No parity, No flow control

Memory

The miniCTD is fitted with a solid state non-volatile Flash memory, capable of storing over 10 million lines of data (equivalent to 5,000 profiles to 1,000m with a 1m profile resolution).

Electrical

<i>Internal:</i>	1x D cell, 1.5v alkaline or 3.6v lithium
<i>External:</i>	if fitted with a SubConn 9 - 28vDC Isolated
<i>Power:</i>	<250mW
<i>Connector:</i>	Subconn MCBH6F

Physical

<i>Materials:</i>	Titanium
<i>Depth Rating:</i>	6000m
<i>Instrument Size:</i>	Ø54mm x 510mm long

Software

System is supplied with Valeport DataLog x2 Windows based PC software, for instrument setup, control, data extraction and display.

Ordering Available Q2 2015