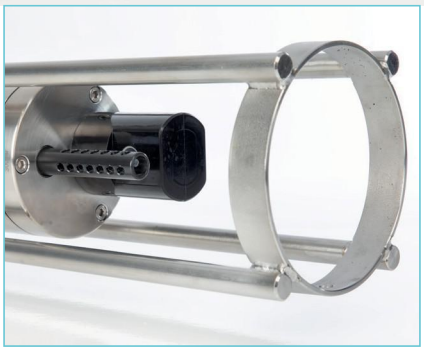

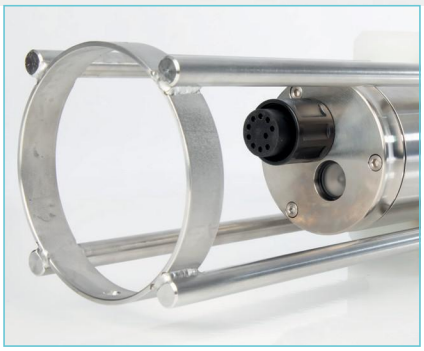

MIDAS CTD

The MIDAS CTD is an accurate, robust CTD Profiler. As well as using Valeport's high stability conductivity sensor, which maintains performance at extreme temperatures and pressures, the MIDAS CTD is fitted with a high accuracy 0.01% pressure sensor as standard. It also features our unique synchronised sampling technique to ensure that all sensors are sampled at exactly the same time for perfect profiles.

Titanium construction and a variety of communications methods make the MIDAS CTD ideal for real-time or autonomous profiling in virtually all conditions.

DATA SHEET

Product Details

MULTI-PARAMETER CTD

DATALOG X2 SOFTWARE

Valeport Limited

VALEPORT

Sensors

The MIDAS CTD is fitted with Valeport's high stability conductivity sensor, a high accuracy temperature compensated piezoresistive pressure transducer, and a fast response PRT temperature sensor

Conductivity

Range:	0 - 80 mS/cm
Resolution:	0.002mS/cm
Accuracy:	±0.01mS/cm

Temperature

Range:	-5°C to +35°C
Resolution:	0.005°C
Accuracy:	±0.01°C

Pressure

Range:	10, 20, 30, 50, 100, 200, 300, 400 or 600 bar
Resolution:	0.001% range
Accuracy:	±0.01% range

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 for a variety of cable lengths, all fitted as standard, selected by pin choice on the output connector.

Standard

RS232:	Up to 200m cable, direct to serial port via USB adaptor
RS485:	Up to 1000m cable, addressable half-duplex comms

Optional FSK

2 wire power & comms up to 6000m cable (cable dependent)

Baud Rate:	2400 - 115200 (FSK fixed at 19200, USB 460800)
Protocol:	8 data bits, 1 stop bit, No parity, No flow control

Electrical

Internal	8 x C cells, 1.5V alkaline or 3.6V lithium
External	9 – 30V DC
Power	0.6W (sampling), <1mW (sleeping)
Battery Life	<100 hours operation (alkaline) <250 hours operation (lithium)
Connector	SubConn MCBH10F

Software

System is supplied with DataLog X2 Windows-based PC software, for instrument setup, data extraction and display. Valeport DataLog X2 software is license free.

Memory

The MIDAS CTD is fitted with 16Mb solid-state non-volatile FLASH memory. Total capacity depends on sampling mode; continuous & burst modes have a single time stamp at the start of the file, trip mode (profiling) stores a time stamp with each reading. A single line of CTD data uses 6 bytes, and a time stamp uses 7 bytes

Continuous	>2,700,000 data points
Profile	>1,200,000 data points (>100 profiles to 6000m)

Data Acquisition

The MIDAS CTD uses the concept of distributed processing, where each sensor has its own microprocessor controlling sampling and calibration of readings. Each of these is then controlled by a central processor, which issues global commands and handles all the data. This means that all data is sampled at precisely the same instant, giving superior quality profile data.

Sampling Modes

Continuous	Regular output from all sensors at 1, 2, 4 or 8Hz
Burst	Regular sampling pattern, an instrument takes a number of readings, then sleeps for a defined time
Trip/Profile	Data is output as a chosen parameter changes by a set value, usually Pressure for profiling
Conditional	Instrument sleeps until a selected parameter reaches a set value
Delay	Instrument sleeps until predefined start time

Physical

Materials	Titanium housing Polyurethane & acetal sensor components Stainless steel (316) cage
Depth Rating	6000m (may be limited by pressure sensor)
Instrument Size	88mmØ x 665mm long
Cage Size	750 x 140 x 120mm
Weight	11.5kg (in air), 8.5kg (in water with cage)
Shipping guide	100 x 18 x 49cm | 24kg

Ordering

0606001-XX	MIDAS CTD, supplied with: • Deployment cage • SubConn switch plug • 3m communications lead • USB adapter • DataLog X2 software • Manual, tool kit and transit case
0606001-XX-FSK	MIDAS CTD with FSK modem adaptor, supplied with: • Deployment cage • SubConn switch plug • 3m communications lead • USB adapter • DataLog X2 software • Manual, tool kit and transit case • 0400EA5 FSK modem adapter
Note	**XX** denotes transducer range. Select from 10, 20, 30, 50, 100, 200, 300, 400 or 600bar

Options

0400002	16 Mbyte memory upgrade (max 64 Mbyte)