Product Details

SOUND SPEED

TEMPERATURE AND DEPTH

X2 SOFTWARE

MIDAS SVP

The MIDAS SVP is the most accurate Sound Velocity Profiler in the world. As well as using Valeport's digital time of flight sound velocity sensor, it now comes as standard with a 0.01% pressure sensor. Every detail from the sensor accuracy through the titanium construction to the large memory and choice of communications methods has been considered - we truly believe it to be the ultimate deep water SVP.

Valeport Limited
St. Peter's Quay, Totnes,
Devon TQ9 5EW United Kingdom

Telephone: +44 (0) 1803 869292
Email: sales@valeport.co.uk
www.valeport.co.uk

VALEPORT

Sensors

The MIDAS SVP is fitted with Valeport's digital time of flight sound velocity sensor, a high accuracy temperature compensated piezo-resistive pressure transducer, and a fast response PRT temperature sensor.

Sound Velocity

Range	1375 – 1900m/s
Resolution	0.001m/s
Accuracy	±0.02m/s

Temperature

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

Pressure

Range	10, 20, 30, 50, 100, 200, 300, 400, and 600 Bar
Resolution	0.001% range
Accuracy	±0.01% range

Data Acquisition

The MIDAS SVP 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, where 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

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 and 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 of cable (cable dependant)

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

Memory

The MIDAS SVP 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 SVP data uses 8 bytes, and a time stamp uses 7 bytes.

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

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	<117 hours operation (alkaline) <330 hours operation (lithium)
Connector	SubConn Titanium MCBH10F

Physical

Materials	Titanium housing, polyurethane & carbon composite sensor components, stainless steel (316) deployment cage
Depth Rating	6000m (may be limited by pressure sensor)
Instrument Size	88mmØ x 665mm long
Cage Size	825 x 140 x 118.5mm
Weight	13kg (in air), 8.5kg (in water) including cage
Shipping	100 x 18 x 49cm 24kg

Software

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

Ordering

0650003-XX	MIDAS SVP Profiler Supplied with: · Deployment cage · SubConn switch plug · 3m Communications Lead · USB adapter · DataLog x2 software · Manual, tool kit and transit case.
0650003-XX-FSK	MIDAS SVP Profiler as above with FSK option
Note	XX denotes transducer range Select from 10, 20, 30, 50, 100, 200, 300, 400, and 600 Bar.

VALEPORT