



MIDAS SVX2

The MIDAS SVX2 is the standard for the offshore Oil & Gas industry. Recognising the conflict faced by users requiring the superior Sound Velocity data from an SVP, but still needing the Salinity and Density data from a CTD, the Midas SVX2 combines both technologies to give the best of both worlds.

Fitted with a 0.01% pressure sensor as standard, the SVX2 also uses synchronised sampling to ensure perfect profiles, and since the digital time of flight SV sensor is the most accurate in the world, it's also possible to compare the true sound velocity data with that generated by commonly used equations.

DATA SHEET

Product Details



CTD



SOUND
SPEED



DATALOG
X2 SOFTWARE

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Sensors

The MIDAS SVX2 is fitted with Valeport's digital time of flight sound velocity sensor, high stability conductivity 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

Conductivity

Range 0 - 80 mS/cm

Resolution 0.003mS/cm

Accuracy ±0.01mS/cm

Temperature

Range -5°C - +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

Data Acquisition

The MIDAS SVX2 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

Electrical

Internal 8 x C cells, 1.5V alkaline or 3.6V lithium

External 9 - 30V DC

Power 0.7W (sampling), <1 mW (sleeping)

Battery Life <100 hours operation (alkaline)
<250 hours operation (lithium)

Connector SubConn Titanium MCBH10F

Software

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

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 adapter

RS485 Up to 1000m cable, addressable half duplex communication

Optional FSK

2 wire power & communications 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

Memory

The MIDAS SVX2 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 10 bytes, and a time stamp uses 7 bytes.

Continuous >1,600,000 data points

Profile >980,000 data points (>80 profiles to 6000m)

Physical

Materials Titanium housing, polycarbonate & composite sensor components, stainless steel (316) cage

Depth Rating Up-to 6000m (May be limited by pressure sensor)

Instrument Size 88mmØ x 665mm long

Cage Size 750 x 140 x 120mm

Weight (in cage) 11.5kg (in air), 8.5kg (in water)

Shipping guide 100 x 18 x 49cm, 24kg

Ordering

0650010-XX MIDAS SVX2 Profiler
Supplied with:
· Deployment cage
· SubConn switch plug
· 3m communications lead
· USB adaptor, DataLog x2 software
· Manual, tool kit and transit case

Note XX denotes transducer range
Select from 10, 20, 30, 50, 100, 200, 300, 400 or 600 Bar

0650010-XX-FSK Midas SVX2 with FSK option

0400002 16 Mbyte memory upgrade (max 64 Mbyte)

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