



MIDAS Surveyor - Echo Sounder

The MIDAS Surveyor is a revolution in small boat survey work. With an integral GPS receiver and Valeport's unique "fuzzy logic" digital echo sounding technology, the Surveyor is quick to deploy, rugged and reliable, and boasts many features to make your work as easy as possible.

Valeport also offers a range of tide gauge & sound velocity products to compliment the Surveyor - see the separate datasheets.

DATA SHEET

Product Details



BATHYMETRY



SURVEYLOG
SOFTWARE



Rechargeable
Battery



GPS

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



Echo Sounder

Single (210kHz) or dual (210 / 33kHz) channel input, using unique "fuzzy logic" DSP to give accurate readings and reliable performance, even in shallow water. Data may be logged and output either raw (as measured) or corrected for tide and heave.

Range 0.3 - 100m (210kHz), 1.8 - 100m (33kHz)

Accuracy greater of $\pm 0.01\text{m}$ or $\pm 0.02\%$

Resolution 0.01m (210kHz), 0.04m (33kHz)

Sample Rate 6Hz

Position

MIDAS Surveyor logs and displays DGPS position data in WGS84 or Local Grid. User has full control over spheroid and projection constants for Local Grid.

Standard Integral 12 channel GPS/SBAS receiver with combined antenna: $\pm 4\text{m}$ (CEP), with no correction
 $\pm 2\text{m}$ (CEP), with SBAS correction

Option Surveyor also accepts user's own differential GPS or RTK data input.

Other Inputs

The Surveyor will accept data input from all the additional sensors listed below. All data may be logged and output in real time on a single RS232 channel, and tide & heave data may be used to provide real time corrections to depth data.

Tide RS232 text data from tide gauge or RTK.

Heave RS232 data from heave sensor (up to 60Hz).

Sound Speed Continuous or spot readings from Valeport Sound Velocity Sensors may also be logged.

Gyro/Auxiliary: RS232 input of vessel heading or any other text string may be logged with the survey data.

Event Marker: Surveyor is supplied with remote event marker

Data Outputs

Real Time RS232 output on a single channel of any, some or all of the active data inputs, in choice of industry standard formats.

Memory

32Mb internal FLASH memory provides nominal 64 hours of data logging.

240 x 128 pixel graphics LCD display, providing numerical and graphical depth display, position data (WGS84 or Local Grid) and all other incoming parameters. On screen help and simple menu-driven setup functions allow full system control.

Electrical

Internal 8.4Ah sealed lead acid battery pack

External 12 - 24V DC

Power 3W (sampling), 25W (max when recharging)

Battery Life Nominal 24hours working time (Recharge using external power)

Connector Fischer

Software

Surveyor is supplied with SurveyLog, a Windows based software package, allowing data extraction & display. All data is presented in ASCII format, and may easily be exported for use in industry standard hydrographic survey software packages, or simple XYZ format data.

Physical

Surveyor Rugged IP67 case, 35 x 33 x 16cm, 9kg

Accessories IP67 case, 41 x 33 x 18cm, 9kg

Dual Tdx Combined 210/33kHz, 30 x 30 x 10cm, 12kg

Shipping 62 x 44 x 38cm, 18kg (basic set)

Ordering

0420001 MIDAS Surveyor logging unit with 16Mb memory
· Internal battery pack and DC power lead
· RS232 output lead,
· Event marker
· Operating manual & SurveyLog software

0420002 210kHz transducer
10m cable and mounting spigot

0420005 Integral 12 channel GPS/SBAS receiver
Antenna, 5m cable and mounting spigot.

Options

0420003 33kHz transducer
10m cable and mounting spar

0420004 33/210kHz transducer
10m cable and mounting spar

0420EA12 RS232 input lead for external data input
(tide, heave etc.)

0420EA13 RS232 output cable

0420EA24 AC/DC adapter

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