

Digital Bar Checker

SoundBar 2



A next generation “Time of Flight” Sound Velocity Profiler, designed specifically for calibration of echo sounders, multibeam, swath sonar and other acoustic measurement devices.

● FEATURES

- Time of flight measurement
- High resolution data
- Temperature compensated
- Programmable sampling
- Emulates other data formats
- Titanium housing
- Real time display
- Data Logging
- 3 year warranty

● APPLICATIONS

- Hydrographic Surveys
- Seismic Operations
- Civil Engineering
- Dredging Operations
- Ports & Harbours

● INTRODUCTION

The SoundBar 2 uses Valeport’s miniSVS technology to provide a practical solution to the problem of performing bar check routines quickly, accurately and safely. Just lower the probe through the water column, and the display unit will calculate and display the mean sound velocity over the depth, allowing simple calibration of echosounders and other acoustic devices. Data is logged by the display unit, and may be output in a range of industry standard formats.

The SoundBar 2 is just one of a range of Valeport sound velocity products, all of which use unique digital time of flight technology to give the most accurate sound velocity data in the world.

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● SPECIFICATION

Sensors

Sound Velocity:

Range: 1400 to 1600 m/s

Resolution: 0.001m/s

Accuracy: ± 0.05 m/s
(± 0.03 m/s rms)

Pressure:

Range: 50dBar standard.
Others available on request.

Resolution: 0.005% FS

Accuracy: ± 0.04 % FS

Data Acquisition

Acoustic

Frequency: 2.5MHz

Sample Period: Single pulse, maximum time of flight 145 μ s.

Sample Modes: Continuous or pressure triggered

Output rate: 1Hz, 2Hz, 4Hz or 8Hz raw data continuous. Pressure triggered data at 8Hz maximum.

Memory: 128kbytes memory gives over 10,000 data points.

Physical

Sensor

Housing Titanium housing, polycarbonate & Invar transducer, and zinc anode.

Max Depth 6000m, dependent on pressure sensor range

Size 40mm diameter by 363mm length

Weight Air, 1.0kg
Water, 0.5kg

Cable

Type Polyurethane sheathed, kevlar strain member (100kg breaking strain)

Length Standard 20m
Maximum 100m

Display

Size 244 x 163 x 94mm

Weight 2kg

Power

Internal 8 x 1.5v alkaline "C" cells

External 12vDC

Current Approx 0.25A

Communications

Output RS232 output from display

Protocol 2400 to 38400 baud
8 data bits, 1 stop bit, no parity

Emulation AML SV Smart Sensor, SVP16, SVPlus, Odom Digibar Pro, NMEA, Hypack + others

● ORDERING

0652014

SoundBar 2 system, comprising:

- Instrument with sound velocity & pressure sensors (50dBar unless specified)
- 20m Signal cable
- Control Display unit with batteries, 12vDC power lead and RS232 output lead
- Operating Manual
- Transit Case

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Additional Signal Cable, max 100m total length.

Note: The sensor used in the SoundBar 2 System is also available for separate purchase as the miniSVS.

Valeport manufactures a wide range of oceanographic and hydrometric instruments including self-recording and direct reading multi-parameter current meters, sound velocity probes, CTD probes, wave recorders, tide gauges, open channel flow meters, water and plankton samplers, winches, sinker weights, connectors and accessories.



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