Soundbar2

The SoundBar 2 Digital Bar Checker is a specific configuration of our world-leading miniSVS product, allowing you to quickly and safely collect sound velocity profile data for the purpose of calibrating echo sounders. Simply lower the probe through the water column to get profile and mean sound velocity data. This simple process removes the need for the difficult and sometimes dangerous standard bar check procedure, and you can be confident that with the most accurate sound velocity sensor in the world, your calibration will be as good as it can be.

Sensors

The SoundBar 2 is fitted with Valeport's digital time of flight sound velocity sensor and a strain gauge pressure transducer.

Sound Velocity
Range:	1375 - 1900 m/s
Resolution:	0.001 m/s
Accuracy:	±0.02 m/s

Pressure
Range:	5 or 10 Bar (50 or 100m)
Resolution:	0.005% range
Accuracy:	±0.1% range

Data Acquisition

Acoustic Frequency:	2.5MHz
Sample Period:	Single pulse, maximum time of flight 145µs.
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.

Communications

Output:	RS232 output from display
Protocol:	2400 to 38400 baud 8 data bits, 1 stop bit, no parity, no flow control
Emulation:	AML SV Smart Sensor, SVP16, SVPlus, Odom Digibar Pro, NMEA, Hypack + others

Electrical

Internal:	8 x C cells, 1.5v alkaline "C" cells for display unit
External:	12v DC
Current:	Approx 0.25A
Connector:	Subconn MCBH6F on probe

Physical

Sensor
Housing:	Acetal housing, polycarbonate, titanium & carbon composite transducer assembly.
Max Depth:	100m, 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
Protection:	IP67 (10 secs @ 0.3m)
Shipping:	52 x 46 x 23cm, 11kg

Software

System is supplied with CDUExpress Windows based PC software, for data extraction and display. CDUExpress is licence free.

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

0150047   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. The acetal housing is rated to a maximum depth of 500m, and pressure sensors suitable for this operating depth are available. A 6000m titanium version of the miniSVS is also available.

Datasheet Reference: SoundBar2 version 2A, Feb 2011