



## miniSVP - Sound Velocity Profiler



The miniSVP has been developed to provide a cost effective tool for the collection of Sound Velocity Profiles without compromising the quality of the data. Ideally suited to ROV, coastal, or small boat applications, the miniSVP will appeal to survey companies, military and academia alike, being simple to use and easy to handle.

### Sensors

The miniSVP is fitted with Valeport's digital time of flight sound velocity sensor, a PRT temperature sensor, and strain gauge pressure transducer.

### Sound Velocity

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

### Temperature

Range:	-5°C to +35°C
Resolution:	0.001°C
Accuracy:	±0.01°C

### Pressure

Range:	5, 10, 30, 50, 100, 300 or 600 Bar
Resolution:	0.001% range
Accuracy:	±0.05% range

### Data Acquisition

The miniSVP features a selection of pre-programmed sampling regimes, covering many standard applications. Data may be sampled from 1 to 16Hz, making it suitable for rapid profiling or for continuous measurement at a fixed point.

### Sampling Modes

Continuous:	Regular output from all sensors at 1, 2, 4, 8 or 16Hz.
Profile:	Logs data as the device falls (or rises) by a defined amount through the water column.

### 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 fitted as standard and selected by pin choice on the output connector:

RS232:	Up to 200m cable, direct to serial port
RS485:	Up to 1000m cable
Baud Rate:	4800 - 460800
Protocol:	8 data bits, 1 stop bit, No parity, No flow control
Bluetooth:	Bluetooth logger and communication set available for cable free data recovery. Bluetooth module is limited to a depth rating of 500m

### Memory

The miniSVP is fitted with a solid state non-volatile Flash memory, capable of storing over 10 million lines of data (equivalent to 10,000 profiles to 500m, at 1m profile resolution).

### Electrical

Internal:	1 x C cell, 1.5V alkaline or 3.6V lithium
External:	9 - 28V DC
Power:	<250mW
Battery Life:	approx 30 hours operation (alkaline) approx 90 hours operation (lithium)
Connector:	SubConn MCBH10F



### Physical

Materials:	Acetal or Titanium housing (as ordered) Polycarbonate & Composite sensor components Stainless steel (316) deployment cage
Depth Rating:	500m (Acetal) 6000m (Titanium) <small>Note: Maximum deployment depth may be limited by pressure transducer range</small>
Instrument Size:	Main Housing: 48mmØ Sensor Body: 54mmØ Length: 435mm (including connector)
Deployment Cage:	110mmØ x 450mm long
Weight:	0.8kg (Acetal) 1.6kg (Titanium)
Shipping:	51 x 42 x 27cm 10kg

### Software

The system is supplied with DataLog Express Windows based PC software, for instrument setup, data extraction and display. DataLog Express is license free.

### Ordering

0660001-XX	miniSVP Sound Velocity Profiler in Acetal Supplied with: <ul style="list-style-type: none"> <li>• Deployment cage</li> <li>• Switch plug</li> <li>• 3m comms lead</li> <li>• DataLog x2 software</li> <li>• Manual and transit case</li> </ul>
0660001BT-XX	miniSVP Sound Velocity Profiler in Acetal Supplied with: <ul style="list-style-type: none"> <li>• Deployment cage</li> <li>• Switch plug</li> <li>• Bluetooth logger/communication set</li> <li>• DataLog x2 software</li> <li>• Manual and transit case</li> </ul>
Note:	XX denotes pressure transducer range Select from 5, 10, 30 or 50bar
0660002-XX	miniSVP Sound Velocity Profiler in Titanium Supplied with: <ul style="list-style-type: none"> <li>• Deployment cage</li> <li>• Switch plug</li> <li>• 3m comms lead</li> <li>• DataLog x2 software</li> <li>• Manual and transit case</li> </ul>
Note:	XX denotes pressure transducer range. Select from 100, 300 or 600bar