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, the military and academia alike, being simple to use, easy to handle, and featuring the most accurate SV sensor in the world.

**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:** 10, 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, 16Hz. Logs data as the device falls (or rises) by a defined amount through the water column.
- **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:** Optional Bluetooth adapter available for cable free data recovery (adapter not designed for immersion)

**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 - 28vDC
- **Power:** <250mW
- **Battery Life:** approx 30 hours operation (alkaline)
- **Connector:** Subconn MCBH10F

**Physical**

- **Materials:** Acetal or titanium housing (as ordered), polycarbonate & composite sensor components
- **Depth Rating:** 500m (acetal)
- **Baud Rate:** 6000m (titanium)
- **NB:** Maximum deployment depth may be limited by transducer range
- **Instrument Size:** Main Housing 48mmØ
- **Sensor Body:** 54mmØ
- **Length:** 435mm (including connector)
- **Weight:** 0.8kg (acetal)
- **Shipping:** 1.6kg (titanium)
- **Shipping:** 0.8kg (acetal)
- **Shipping:** 1.6kg (titanium)
- **Shipping:** 51 x 42 x 27cm, 10kg

**Software**

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

**Ordering**

- **0660001** miniSVP Sound Velocity Profiler in acetal housing, switch plug, deployment cage, 3m communications lead, DataLog Express software, manual and transit case. **Specify required pressure range**
- **0660002** miniSVP Sound Velocity Profiler in titanium housing, switch plug, deployment cage, 3m communications lead, DataLog Express software, manual and transit case. **Specify required pressure range**

**Datasheet Reference:** miniSVP version 2b, Dec 2012