



# 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 survey operations, from coastal to deep water, the miniSVP will appeal to survey companies, military and academia alike, being simple to use and easy to handle.

### DATA SHEET

#### Product Details



SOUND  
SPEED



DATALOG  
X2 SOFTWARE



Bluetooth

**Valeport Limited**  
St. Peter's Quay, Totnes,  
Devon TQ9 5EW United Kingdom

Telephone: +44 (0) 1803 869292  
Email: [sales@valeport.co.uk](mailto:sales@valeport.co.uk)  
[www.valeport.co.uk](http://www.valeport.co.uk)



## Sensors

Fitted with Valeport's digital time of flight sound velocity sensor, a PRT temperature sensor, and piezo-resistive pressure transducer.

## Sound Velocity

**Range** 1375 - 1900m/s

**Resolution** 0.001m/s

**Accuracy** ±0.02m/s

## Temperature

**Range** -5°C - +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

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

Will operate autonomously, with setup and data extraction performed by direct communications with PC. 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** 38400, 57600 or 115200

**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

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** approximately 30 hours operation (alkaline)  
approximately 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)

**Note:** Maximum deployment depth may be limited by pressure transducer range

**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 X2 software, for instrument setup, data extraction and display. DataLog X2 is licence free.

## Ordering

**0660001-XX** miniSVP Sound Velocity Profiler in Acetal  
Supplied with:  
• Deployment cage  
• Switch plug  
• 3m comms lead  
• DataLog X2 software  
• Manual and transit case

**0660001BT-XX** miniSVP Sound Velocity Profiler in Acetal  
Supplied with:  
• Deployment cage  
• Switch plug  
• Bluetooth logger/communication set  
• DataLog X2 software  
• Manual and transit case

**Note:** **XX** denotes pressure transducer range  
Select from 5, 10, 30 or 50bar

**0660002-XX** miniSVP Sound Velocity Profiler in Titanium  
Supplied with:  
• Deployment cage  
• Switch plug  
• 3m comms lead  
• DataLog X2 software  
• Manual and transit case

**Note:** **XX** denotes pressure transducer range.  
Select from 5, 10, 30, 50, 100, 300 or 600 Bar

## Datasheet Reference: miniSVP | April 2020

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