



rapidSV Sound Velocity Profiler



The Valeport rapidSV profiler has been developed for the fast collection of Sound Velocity Profiles, without compromising the quality of the data.

The world's most accurate Sound Velocity sensor with virtually instantaneous response time, data acquisition rates of up to 32Hz housed in a low drag housing result in the highest quality profiles at drop rates over 5 m/s

Specifications

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

Sound Velocity

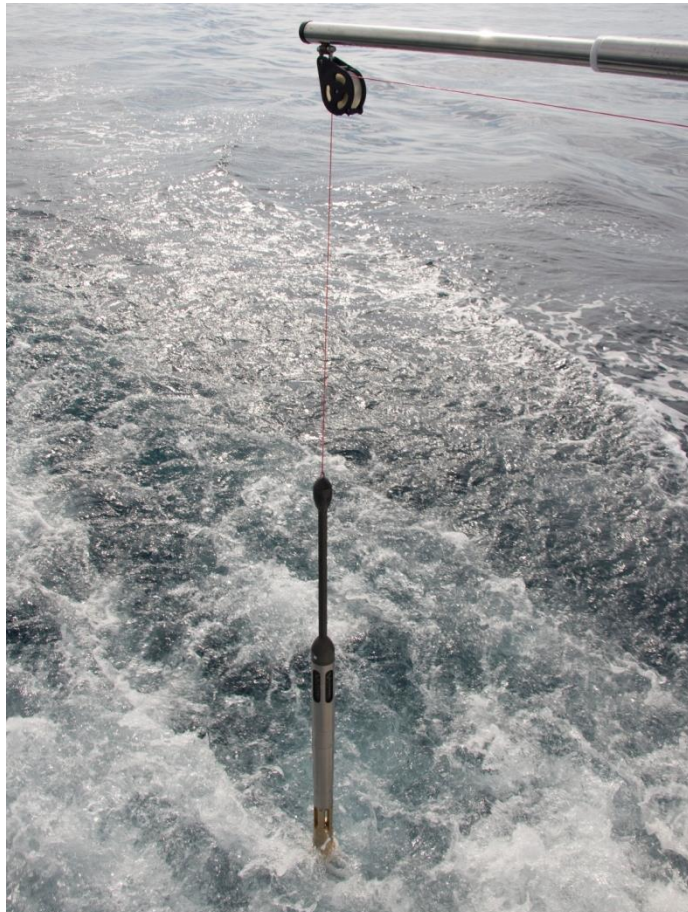
Range: 1375 - 1900m/s
Resolution: 0.001m/s
Accuracy: ± 0.02 m/s

Pressure

Range: 200 Bar
Resolution: 0.001% range
Accuracy: ± 0.05 % range

Temperature (Optional)

Range: -5°C to $+35^{\circ}\text{C}$
Resolution: 0.001°C
Accuracy: $\pm 0.01^{\circ}\text{C}$



Data Acquisition

Sample Rate	dependent on configuration		
Rate	SV+P	SVP+T	Depth Resolution
16Hz	●	●	~40cm
32Hz	●	●	~20cm

The optional temperature sensor gives valuable information about the physical structure of the ocean with the trade off of reducing the maximum data acquisition rate to 16 Hz.

Communications

Integral Bluetooth for configuration & data recovery

Memory

The rapidSV Profiler is fitted with a solid state non-volatile Flash memory, capable of storing over 10 million lines of data.

Electrical

Battery 1 x C cell, 1.5v alkaline or 3.6v lithium

Battery Life approx 25 hours operation (alkaline)
approx 80 hours operation (lithium)

Physical

Materials Titanium housing, Aluminium-Bronze nose piece, polycarbonate & composite sensor components

Depth Rating 2000m

Instrument Size Sensor Body $\varnothing 50$ mm x Length 515mm

Weight ~3kg (in air)

Software

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

Ordering

0660021 rapidSV Profiler in titanium housing, DataLog Express software, manual and transit case.

0660021-TS rapidSV Profiler with Temperature in titanium housing, DataLog Express software, manual and transit case.

Datasheet Reference: rapidSV version 2b, June 2013