



rapidPro SVT



The rapidPro SVT has been developed for the rapid collection of sound velocity profiles, without compromising the quality of the data. Now further developed with a new optimised shape and removable ProLogger module that combines a rechargeable lithium ion battery, data logger, GPS receiver and Bluetooth comms module.

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 up to 5 m/s.

Optionally, the rapidPro SVT is designed to operate with the Teledyne OceanScience rapidCAST underway profiling winch to deliver the highest quality SVT casts on the move. While the vessel is underway profiles of up to 450m at 6 knots, are expected.

Sensor Specifications

The rapidPro SVT is fitted with Valeport's digital time of flight sound velocity sensor, strain gauge pressure transducer and Thermistor temperature sensor.

Sound Velocity

Range:	1375 - 1900m/s
Resolution:	0.001m/s
Accuracy:	±0.02m/s
Response:	31.25 milliseconds

Pressure

Range:	200 Bar (max)
Resolution:	0.001% range
Accuracy:	±0.01% range
Response:	31.25 milliseconds

Temperature - high performance Thermistor

Range:	-5°C to +35°C
Resolution:	0.001°C
Accuracy:	±0.01°C
Response:	50 milliseconds

Data Acquisition

Sample Rate: dependent on configuration

Rate	SVP & Temp	Depth Resolution
16Hz	P	~40cm
32Hz	P	~20cm

The temperature sensor gives valuable information about the physical structure of the water column.



rapid SVT with Teledyne rapidCAST Underway Profiling Winch



rapidPro SVT with integral ProLogger module



ProLogger Module

Communications

Through the ProLogger an integral Bluetooth module for configuration & data recovery also, when removed from the rapidPro housing USB serial comms directly to a PC.

Memory

The rapidPro SVT Profiler is fitted with an SD card with more than sufficient capacity

Electrical

Battery:	Rechargeable Lithium Ion battery module
Battery Life:	approximately 20 hours continuous operation from a fully charged pack*

*battery consumption estimates are based on recording down casts only at 8Hz observation period

Physical

Materials:	Titanium/PEEK housing Stainless steel 316 nose casting Titanium & composite sensor components
Depth Rating:	2000m
Instrument Size:	Ø62mm x Length 605mm
Weight:	4.5kg (in air)

Software

System is supplied with Valeport Connect PC software, for instrument setup, data extraction and display.

Valeport Connect PC software is license free

Ordering

0660046-TS-100	rapidPro SVT Profiler with Sound Velocity, Pressure (1 000m) and Temperature (Thermistor)
0660046-TS-200	rapidPro SVT Profiler with Sound Velocity, Pressure (2 000m) and Temperature (Thermistor)

Supplied with:	<ul style="list-style-type: none"> • 1x ProLogger module • 2x switch keys • Bluetooth module with external antenna and cable • Tool kit • Valeport Connect PC software • Operating manual and system transit case
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Datasheet Reference: rapidPro SV Profiler | December 2018

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