

SWiFT SVP

Sound Velocity Profiler



Designed from the outset with the intention of a seamless workflow, the SWiFT profiler provides survey-grade sensor technology coupled with the convenience of Bluetooth connectivity and rechargeable batteries. An integral GPS module, to geo-locate each profile, completes the package. Data can be easily and quickly downloaded and reviewed wirelessly, via Bluetooth, using the SWiFT App on iOS devices and instantly shared, in industry standard data formats through email and cloud services. Using the provided USB adapter or cable.

In addition to the directly measured sound speed, temperature and pressure observations, Conductivity, Salinity and Density are calculated using Valeport's proprietary algorithm developed from extensive laboratory and field work.

Sensor Specifications

The SWiFT SVP is fitted with Valeport's digital time of flight sound velocity sensor, temperature compensated piezo-resistive pressure transducer and a PRT temperature sensor.

Sound Velocity

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

Pressure

Range	50 Bar
Resolution	0.001% FS
Accuracy	±0.01 FS

Temperature

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

Calculated Parameters and Accuracy

Calculations based on Valeport's proprietary DASH formula

Range	±0.05 mS/cm
Resolution	±0.05 PSU
Accuracy	±0.05 kg/m ³

Physical

Materials	Titanium / Stainless Steel deployment weight
Depth Rating	500m
Dimensions	ø78 mm x Length 264 mm
Weight	2.0 kg (in air) / 0.9 kg (in water) / 3.0 kg (in air) / 18 kg (in water) with deployment weight

Communications (set up and data offload)

USB Serial
Bluetooth v4 – low energy

Electrical

Battery	Internal rechargeable Li-ion battery pack
Battery life	Up to 5 days operations
Charging	USB Typically 1-hour fast charge will give 12 hours operation