SWiFTplus
Rhodamine

Multi-parameter profiler

Valeport's SWiFTplus Multi-Parameter Profiler with a Rhodamine sensor combines survey-grade sound speed, temperature and pressure sensor technology with Fluorometer observations. The package is completed with the convenience of Bluetooth connectivity, rechargeable battery and an integral GPS module to geo-locate each profile.

- Multi-Parameter Profiler
    - CTD, Sound Speed, Salinity, Density
    - Up to 32Hz sampling rate
    - Rhodamine sensor
- Bluetooth and USB connectivity
- Integral GPS receiver for geo-location of profile and time synchronisation
- Rechargeable Lithium-ion Battery
- Dedicated PC software and iOS portable device App

Product Details

MULTI-PARAMETER CTD

SOUND SPEED

OPTICAL

CONNECT SOFTWARE

Bluetooth   USB   Rechargeable Battery   GPS

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Valeport's Hyperion Fluorometer sensor range, when combined with SWiFT, delivers high performance measurements of Rhodamine in a compact & robust package.

Sensor Specification

Rhodamine*

Excitation	520 nm
Detection	650 nm
Dynamic Range	0-1,000 ppb 2 gain settings: 0-50, 0-1,000 software controlled
Minimum Detection (3x SD in RO water)	<0.01 ppb
Linearity	0.99 R^2
Response Time	0.03 - 2 sec
Output Rate	0.5 Hz - 32 Hz (free running) software controlled

Conductivity#

Range	0 - 80 mS/cm
Resolution	0.001 mS/cm
Accuracy	±0.05 mS/cm

Temperature (Platinum Resistance Thermometer)

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

Pressure (Temperature compensated piezo-resistive pressure transducer)

Range	50 Bar
Resolution	0.001% FS
Accuracy	±0.01% FS

Sound Velocity (Digital time of flight sensor)

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

Salinity#

Range	0 - 42 PSU
Resolution	0.001 PSU
Accuracy	±0.05 PSU

Density#

Range	990 - 1035 kg/m³
Resolution	0.001 kg/m³
Accuracy	±0.05 kg/m³

*Calibrated against Fluorescein\Rhodamine solution.
#Calculated Accuracies. Calculations based on Valeport's proprietary DASH formula.

Physical dimensions

Materials	Housing: Titanium
	Sinker weight: Stainless steel
	Optical window: Sapphire glass
Depth rating	500m
Dimensions	Ø78mm x Length 307mm (with sinker weight)
Weight	2.7kg (in air) / 1.7kg (in water) including optional sinker weight

Communications (set-up and data offload)

Bluetooth v4 - low energy

USB Serial

Memory

2 GB Internal Flash Card Storage

Electrical

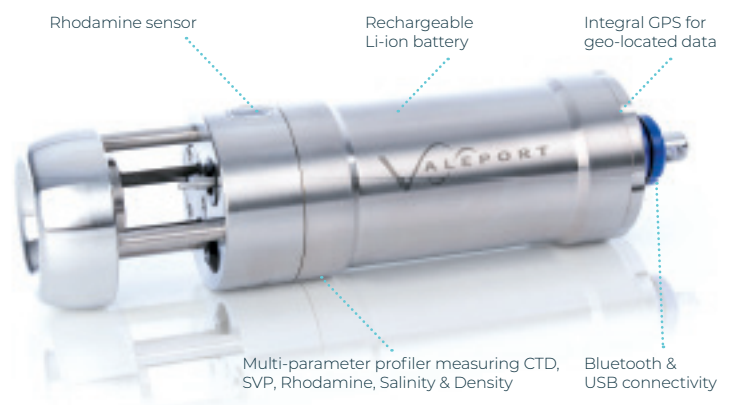|	
Battery	Internal rechargeable Li-ion battery pack
Charging	USB - Supplied mains AC adapter

Software

· Connect iOS for Bluetooth compatible mobile devices:
  - instrument set-up, data offload and data display
· Connect PC for both USB and Bluetooth connectivity:
  - instrument set-up, data offload and data display
· Both will export data in common file formats that are compatible with industry standard Hydrographic software packages
· Android App to follow

Ordering

0660047-50-FR	SWiFTplus profiler with Rhodamine sensor - 500m rated

Supplied with:
· Deployment weight
· PC Bluetooth adapter
· USB interface and charging cable and charger
· Valeport Connect PC software \ iOS App
· Transit Case

Rhodamine sensor

Rechargeable Li-ion battery

Integral GPS for geo-located data

Multi-parameter profiler measuring CTD, SVP, Rhodamine, Salinity & Density

Bluetooth & USB connectivity

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