



DATA SHEET

Product Details



**MULTI-PARAMETER
CTD**



**SOUND
SPEED**



OPTICAL



**CONNECT
SOFTWARE**



Bluetooth



USB



Rechargeable
Battery



GPS

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
 - Rhodamine sensor
 - Up to 32Hz sampling rate
- Bluetooth and USB connectivity
- Integral GPS receiver for geo-location of profile
- Rechargeable Lithium-ion Battery
- Dedicated PC software and iOS portable device App



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 to 2 sec
Output Rate	0.5 Hz to 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 to +35°C
Resolution	0.001°C
Accuracy	±0.01°C
Pressure (Temperature compensated piezo-resistive pressure transducer)	
Range	10 Bar or 20 Bar
Resolution	0.001% FS
Accuracy	±0.05% 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/m ³
Resolution	0.001 kg/m ³
Accuracy	±0.05 kg/m ³

*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	200m
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	
<ul style="list-style-type: none"> • Connect iOS for Bluetooth compatible mobile devices: <ul style="list-style-type: none"> - instrument set-up, data offload and data display • Connect PC for both USB and Bluetooth connectivity: <ul style="list-style-type: none"> - 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	
0660047-10-FR	SWiFTplus profiler with Rhodamine sensor - 100m rated
0660047-20-FR	SWiFTplus profiler with Rhodamine sensor - 200m rated
	Supplied with: <ul style="list-style-type: none"> • Deployment weight • PC Bluetooth adapter • USB interface and charging cable and charger • Valeport Connect PC software \ iOS App • Transit Case

As part of our policy of continuing development, Valeport Ltd. reserve the right to alter at any time, without notice, all prices, specifications, designs and conditions of sale of all equipment.

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