



## DATA SHEET

### Product Details



**MULTI-PARAMETER  
CTD**



**SOUND  
SPEED**



**OPTICAL**



**CONNECT  
SOFTWARE**



Bluetooth



USB



Rechargeable  
Battery



GPS

# SWiFTplus Phycocyanin

## Multi-parameter profiler

Valeport's SWiFTplus Multi-Parameter Profiler with a Phycocyanin 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
  - Phycocyanin 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 Phycocyanin in a compact & robust package.

Sensor Specification	
Phycocyanin*	
Excitation	590 nm
Detection	650 nm
Dynamic Range	0-9,000 ppb 2 gain settings: 0-50, 0-9,000 software controlled
Minimum Detection (3x SD in RO water)	<0.08 ppb
Linearity	0.99 R <sup>2</sup>
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 <sup>3</sup>
Resolution	0.001 kg/m <sup>3</sup>
Accuracy	±0.05 kg/m <sup>3</sup>

\*Calibrated against Phycocyanin in water/Phosphate buffer 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"> <li>Connect iOS for Bluetooth compatible mobile devices: <ul style="list-style-type: none"> <li>instrument set-up, data offload and data display</li> </ul> </li> <li>Connect PC for both USB and Bluetooth connectivity: <ul style="list-style-type: none"> <li>instrument set-up, data offload and data display</li> </ul> </li> <li>Both will export data in common file formats that are compatible with industry standard Hydrographic software packages</li> <li>Android App to follow</li> </ul>	
Ordering	
0660047-10-PC	SWiFTplus profiler with Phycocyanin sensor - 100m rated
0660047-20-PC	SWiFTplus profiler with Phycocyanin sensor - 200m rated
Supplied with: <ul style="list-style-type: none"> <li>Deployment weight</li> <li>PC Bluetooth adapter</li> <li>USB interface and charging cable and charger</li> <li>Valeport Connect PC software \ iOS App</li> <li>Transit Case</li> </ul>	

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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