



# SWiFTplus Fluorescein

## Multi-parameter profiler

Valeport's SWiFTplus Multi-Parameter Profiler with a Fluorescein 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
  - Fluorescein 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

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

## DATA SHEET

### Product Details



MULTI-PARAMETER CTD



SOUND SPEED



OPTICAL



CONNECT SOFTWARE



Bluetooth



USB



Rechargeable  
Battery



GPS

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Sensor Specification	
<b>Fluorescein*</b>	
<b>Excitation</b>	470 nm
<b>Detection</b>	545 nm
<b>Dynamic Range</b>	0-500 ppb 2 gain settings: 0-25, 0-500 software controlled
<b>Minimum Detection</b> (3x SD in RO water)	<0.01 ppb
<b>Linearity</b>	0.99 R <sup>2</sup>
<b>Response Time</b>	0.03 - 2 sec
<b>Output Rate</b>	0.5 Hz - 32 Hz (free running) software controlled
<b>Conductivity#</b>	
<b>Range</b>	0 - 80 mS/cm
<b>Resolution</b>	0.001 mS/cm
<b>Accuracy</b>	±0.05 mS/cm
<b>Temperature</b> (Platinum Resistance Thermometer)	
<b>Range</b>	-5°C – +35°C
<b>Resolution</b>	0.001°C
<b>Accuracy</b>	±0.01°C
<b>Pressure</b> (Temperature compensated piezo-resistive pressure transducer)	
<b>Range</b>	50 Bar
<b>Resolution</b>	0.001% FS
<b>Accuracy</b>	±0.01% FS
<b>Sound Velocity</b> (Digital time of flight sensor)	
<b>Range</b>	1375 – 1900 m/s
<b>Resolution</b>	0.001 m/s
<b>Accuracy</b>	±0.02 m/s
<b>Salinity#</b>	
<b>Range</b>	0 - 42 PSU
<b>Resolution</b>	0.001 PSU
<b>Accuracy</b>	±0.05 PSU
<b>Density#</b>	
<b>Range</b>	990 - 1035 kg/m <sup>3</sup>
<b>Resolution</b>	0.001 kg/m <sup>3</sup>
<b>Accuracy</b>	±0.05 kg/m <sup>3</sup>

\*Calibrated against Fluorescein/Rhodamine solution.

#Calculated Accuracies. Calculations based on Valeport's proprietary DASH formula.

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

Communications (set-up and data offload)	
	Bluetooth v4 - low energy
	USB Serial

Electrical	
<b>Battery</b>	Internal rechargeable Li-ion battery pack
<b>Charging</b>	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	
<b>0660047-50-FF</b>	SWiFTplus profiler with Fluorescein 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



## Datasheet Reference: SWiFTplus Fluorescein | April 2020

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