



# SWiFTplus Chlorophyll a

## Multi-parameter profiler

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

### Chlorophyll a\*

<b>Excitation</b>	470 nm
<b>Detection</b>	696 nm
<b>Dynamic Range</b>	0-800 µg/l 2 gain settings: 0-40, 0-800 software controlled
<b>Minimum Detection</b> (3x SD in RO water)	0.025 µg/l
<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

### Conductivity#

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

### Temperature (Platinum Resistance Thermometer)

<b>Range</b>	-5° - +35°C
<b>Resolution</b>	0.001°C
<b>Accuracy</b>	±0.01°C

### Pressure (Temperature compensated piezo-resistive pressure transducer)

<b>Range</b>	50 Bar
<b>Resolution</b>	0.001% FS
<b>Accuracy</b>	±0.01% FS

### Sound Velocity (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

### Salinity#

<b>Range</b>	0 - 42 PSU
<b>Resolution</b>	0.001 PSU
<b>Accuracy</b>	±0.05 PSU

### Density

<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 Chlorophyll a in acetone solution  
#Calculated Accuracies. Calculations based on Valeport's proprietary DASH formula.

## Physical dimensions

<b>Materials</b>	Housing: Titanium Sinkers 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

- 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-FC** SWiFTplus profiler with Chlorophyll a 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 Chlorophyll a | April 2020

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