



# SWiFT CTD

## CTD Profiler

Designed from the outset with the intention of a seamless workflow, the SWiFT CTD profiler provides survey-grade sensor technology coupled with the convenience of Bluetooth connectivity and rechargeable batteries. An integral GPS module, to geo-locate each profile, completes the package. Data can be easily and quickly downloaded and reviewed wirelessly, via Bluetooth, using Valeport's new Ocean software for Windows and Connect Pathway Edition for iOS and Android and instantly shared, in industry standard data formats through email and cloud services. A USB Cable and Bluetooth adapter are provided.

In addition to the directly measured Conductivity, Temperature and Depth measurements, Salinity, Density and Sound Velocity is calculated using the UNESCO international standard algorithm and Chen and Millero equation.

With an operational battery life of up to 5 days and the convenience of charging via USB, SWiFT CTD is intended for offshore, coastal, harbour and inland environmental and hydrographic survey use to 500m and offers the highest quality CTD profiles in a compact, robust and portable package.

Optionally, there is a deployment cage available to bolt onto the instrument to help get the SWiFT CTD to depth in fast-flowing currents.

## DATA SHEET

### Product Details



**MULTI-PARAMETER  
CTD**



**SOUND  
SPEED**



**OCEAN & CONNECT  
PATHWAY EDITION  
SOFTWARE**



Bluetooth



USB



Rechargeable  
Battery



GPS

### Valeport Limited

St. Peter's Quay, Totnes,  
Devon TQ9 5EW United Kingdom

Telephone: +44 (0) 1803 869292

Email: [sales@valeport.co.uk](mailto:sales@valeport.co.uk)

[www.valeport.co.uk](http://www.valeport.co.uk)



### Sensor Specifications

The SWIFT CTD is fitted with Valeport's conductivity sensor, temperature compensated piezo-resistive pressure transducer and a new fast response thermistor temperature sensor.

### Conductivity

<b>Range</b>	0-80 mS/cm
<b>Resolution</b>	0.001 m/s
<b>Accuracy</b>	±0.01 m/s

### Temperature

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

### Pressure

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

### Calculated Parameters and Accuracy

Calculations based on the UNESCO international standard algorithm and Chen and Millero equation

<b>Sound Velocity</b>	~0.25 m/s
<b>Salinity</b>	±0.01 PSU
<b>Density</b>	±0.01 kg/m <sup>3</sup>

### Physical

<b>Materials</b>	Housing - Titanium   Sensor Guard - Acetal   Temperature Sensor - Titanium   Pressure Sensor - Titanium   Conductivity Sensor - Polyurethane coated titanium with ceramic core
<b>Depth Rating</b>	500m
<b>Dimensions</b>	ø78mm x Length 350mm
<b>Weight</b>	2.7kg (in air) / 1.65kg (in water)



### Communications (set up and data offload)

USB Serial

Bluetooth v4 - low energy

### Electrical

**Battery** Internal rechargeable Li-ion battery pack

**Battery life** 5 days continuous operation

**Charging** USB  
Typically, 1 hour fast charge will give 12 hours operation

### Software

iOS and Android Valeport Connect Pathway Edition for Bluetooth compatible mobile devices – instrument set up, data offload, display and translation to common data formats. Valeport's Ocean PC software, with both USB cable and Bluetooth connectivity, for instrument setup, data extraction, display and translation to common data formats.

Instrument and data time is synchronised to GPS, UTC.

### Ordering

**0660049-50** SWIFT CTD Profiler  
Titanium housing rated to 500m

**Supplied with** PC Bluetooth adapter  
USB interface and charging cable 1.5 A charger  
Valeport Ocean software  
Operating manual  
System transit case



### Datasheet Reference: SWIFT CTD | May 2021

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