



# SWiFT Deep CTD

## CTD Profiler

Designed from the outset with the intention of a seamless workflow, the SWiFT Deep CTD profiler provides survey-grade sensor technology coupled with the convenience of **Bluetooth®** connectivity and rechargeable batteries. An integral GNSS module, to geo-locate each profile, completes the package. Data can be easily and quickly downloaded and reviewed wirelessly via Bluetooth connectivity using Valeport's Ocean software for Windows, iOS or Android. Data can be 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 a deployment cage, large internal Lithium-ion rechargeable battery and the convenience of charging via USB, SWiFT Deep CTD is intended for hydrographic and offshore use to 6,000m and offers the highest quality CTD profiles in a compact, robust and portable package.

## DATA SHEET

### Product Details



MULTI-PARAMETER  
CTD



SOUND  
SPEED



OCEAN SOFTWARE



USB



Rechargeable  
Battery



GNSS

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### Sensor Specifications

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

### Conductivity

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

### Temperature

Range	-5 °C – +35 °C
Resolution	0.001 °C
Accuracy	±0.01 °C

### Pressure

Range	100, 200, 300 or 600 Bar
Resolution	0.001% FS
Accuracy	±0.01% FS

### Calculated Parameters and Accuracy

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

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

### Physical

Materials	Housing - titanium   Sensor Guard - acetal   Temperature Sensor - titanium   Pressure Sensor - titanium   Conductivity Sensor - polyurethane coated titanium with ceramic core   Deployment frame - 316L stainless steel and polyurethane
Depth Rating	6,000 m
Dimensions	ø80 mm x Length 330 mm
Weight	2.9 kg (in air)   1.7 kg (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 Up to 30 days sample scenario dependant
Charging	USB Typically, 1 hour fast charge will give 12 hours operation

### Software

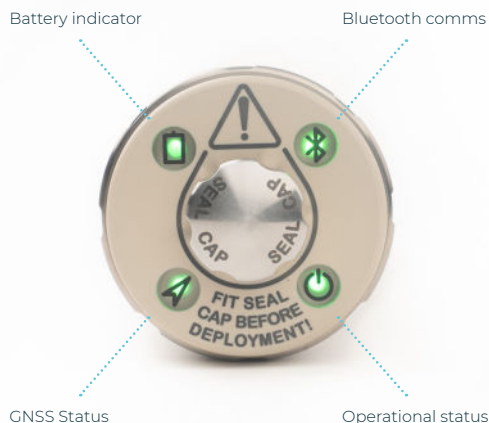
iOS and Android Valeport Ocean App for Bluetooth compatible mobile devices – instrument set up, data offload, display and translation to common data formats. Valeport's Ocean PC software, with both USB cable and Bluetooth connectivity, for instrument setup, data extraction, display and translation to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

Instrument and data time is synchronised to GNSS, UTC.

### Ordering

0660050-XX	SWiFT Deep CTD Profiler Titanium housing rated to 6,000m
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Supplied with	PC Bluetooth adapter USB interface and charging cable 1.5 A charger Valeport Ocean software Operating manual System transit case
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### Datasheet Reference: SWiFT Deep CTD | February 2023

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