



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®** wireless technology 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 are calculated using the UNESCO international standard algorithm and Chen and Millero equation. With a large internal Lithium-ion rechargeable battery and the convenience of charging via USB, the SWiFT CTD is intended for offshore, coastal, harbour and inland environmental and hydrographic survey use to 500 m 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



USB



Rechargeable
Battery



GNSS

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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

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	50 Bar
Resolution	0.001% FS
Accuracy	±0.01% FS

Calculated Parameters and Accuracy

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

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

Physical

Materials	Housing - Titanium Sensor Guard - Acetal Temperature Sensor - Titanium Pressure Sensor - Titanium Conductivity Sensor - Polyurethane coated titanium with ceramic core
Depth Rating	500 m
Dimensions	ø78 mm x Length 350 mm
Weight	2.7 kg (in air) / 1.65 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 SWiFT Battery endurance depends on the sampling scenario used – contact Valeport for more information.

100 days endurance 5 profiles per day to 100 m*
70 days endurance 3 profiles a day to 500 m*
5 days continuous running (normal power mode)

(*Utilising Bluetooth Sleep mode)

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 GNSS, UTC.

Ordering

0660049-50

SWiFT CTD Profiler
Titanium housing rated to 500 m

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 CTD | April 2024

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