

# CTD75M

Online and memory probe



Sea & Sun  
Technology



08/2018 - All product specifications subject to change without notice - Photos: www.stock.adobe.com, own archive

## Main features

- depth range up to 1000 m
- low weight
- easy handling
- non-corrosive titanium housing
- up to 8 sensors on the bottom cap
- online measurement or memory mode
- internal standard battery or external power supply
- data acquisition software for various versions of Microsoft Windows
- calculations according to UNESCO formulae

sensors: max. 8  
on the bottom cap

standard sensors:

- Conductivity (C)
- Temperature (T)
- Pressure (D)

additional sensors:

- Oxygen
- Turbidity
- pH
- Redox (ORP)
- Fluorometer
- Light irradiance
- Transmissometer





Control LED



Titanium protection frame



The CTD75M is a high quality, high accuracy 8 channel multi parameter probe for oceanographic and limnological measurement of physical, chemical and optical parameters with up to 8 sensors and a maximum depth up to 1000 m. It measures conductivity, temperature, and pressure as a standard configuration. Furthermore, it can be easily configured for a wider range of auxiliary sensors.

#### Software:

The supplied Standard Data Acquisition Software package "SST-SDA" includes the handling of the logging process and the display of online or recorded data with a shared graphic user interface. The "SST-SDA" calculates the physical values from the raw values supplied by the probe and the associated calibration coefficients. Salinity, density, sound velocity and depth will be calculated by using the UNESCO formulae.

#### Memory

The CTD75M records selected data at programmable time intervals and is stored in non-volatile flash memory with a capacity of 128 Mbytes.

Up to 3 000 000 CTD data sets can be recorded on this memory. The actual number depends on the selected storage options and the number of sensors adapted to the probe.

#### Recording modes

- Continuous mode: each data set is stored.
- Time mode: data sets are only stored at programmable intervals with several selectable schemes.
- Increment mode: data sets are stored at programmable depth stamps.
- Online mode (RS-232).

The probe power supply is activated by touching a reed contact with a magnetic rod. LED displays power supply status and optical control of memory access.

A standard RS-232 connection is used for programming, data output, and data acquisition. A microprocessor controls the 16 bit analog to digital converters that have 8 channels.

#### Electrical specifications:

- Supply voltage: 7...15V DC
- Power consumption: approx. 0.5 W (sensor-dependent)
- Serial port: RS-232
- Data sampling rate: 5 CTD sets/s
- Connector: SUBCONN MCBH8M Ti

#### Mechanical specifications:

##### Materials:

Housing: titanium, grade 2  
Connector: titanium, neoprene

##### Dimensions and weights:

Length (housing): 360 mm  
Length (protection frame): 294 mm  
Length (overall, with connector): 654 mm  
Diameter (housing): 73 mm  
Weight (in air): approx. 3.5 kg

#### PC requirements:

- Operating system: Microsoft Windows (all versions)
- Interface: USB or RS-232

All calculations correspond to the current UNESCO formulae.

We would be pleased to make an offer according to your requests and requirements.

## Equipment

1. Sea & Sun DataWatch
2. Bluetooth® Cable Drum
3. Cable Drum
4. Winch
5. Cable



1



2



3



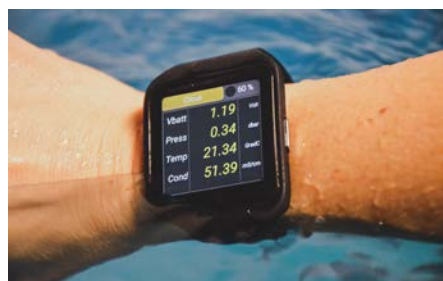
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#### Ordering:

30400002

CTD75M

sensors and equipment available on request



#### Standard sensors:

Sensor	Principle	Range	Accuracy	Resolution	Response time
Pressure (depth)	piezo resistive	5, 10, 20, 50, 100 bar	up to 0.05 % full scale in the range of -5...35°C	0.002 % full scale	150 ms
Temperature	Pt 100 4-pole	-2 – 36 °C -2 – 60 °C	± 0.002 °C ± 0.005 °C	0.0005 °C 0.0005 °C	150 ms 150 ms
Conductivity	7-pole-cell	0 – 1 mS/cm 0 – 6 mS/cm 0 – 10 mS/cm 0 – 70 mS/cm	± 0.002 mS/cm	0.0005 mS/cm	150 ms
		0 – 200 mS/cm 0 – 300 mS/cm	± 0.010 mS/cm	0.005 mS/cm	150 ms

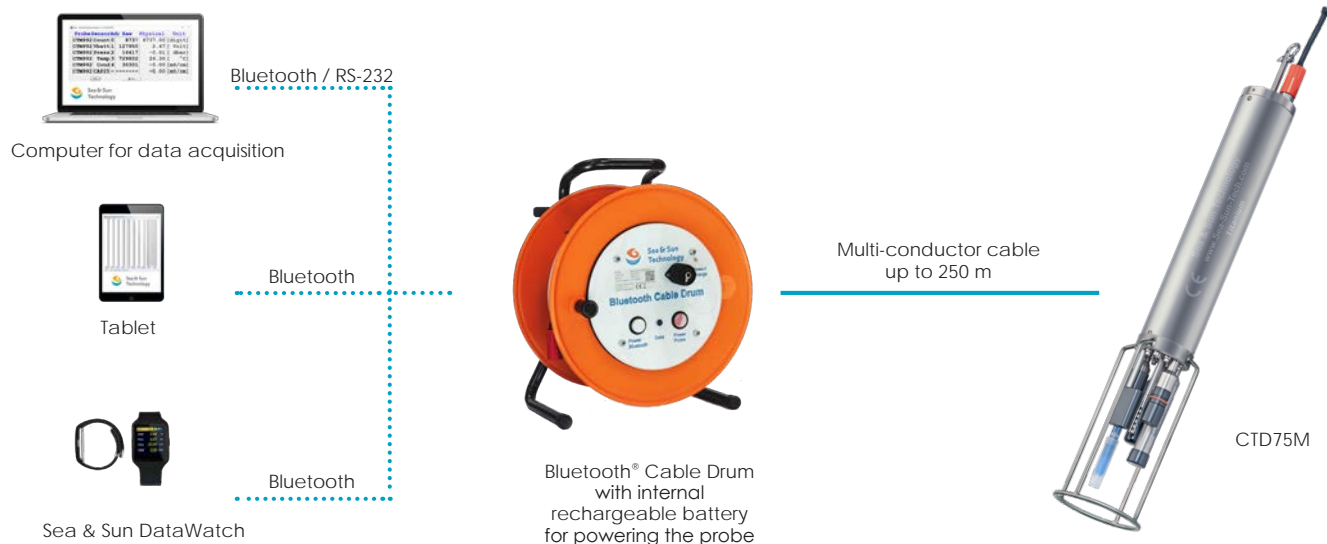
#### Additional sensors:

Sensor	Principle	Range	Accuracy	Resolution	Response time
pH (standard or H <sub>2</sub> S resistant)	combined electrode	4 – 10 pH 0 – 14 pH	± 0.02 pH	0.0002 pH	1 s
Redox (standard or H <sub>2</sub> S resistant)	combined electrode	± 2 Volt	± 20 mV	1.0 mV	1 s
Oxygen (SST-DO)	optical	0 – 250 % sat. 0 – 20 mg/l	± 2 % sat. ± 2 % sat.	0.01 % sat. 0.01 % sat.	2 s
Oxygen	clark electrode	0 – 250 %	± 3 % sat.	0.1 % sat.	3 s (63 %) 10 s (90 %)
Fast Oxygen*	clark electrode	0 – 150 %	± 2 % sat.	0.1 % sat.	200 ms (90%)
Turbidity	90 ° back scatter	0 – 25 FTU 0 – 125 FTU 0 – 500 FTU 0 – 4000 FTU **		0.1 FTU / NTU	100 ms
Light irradiance (PAR)	spherical quantum sensor	400 – 700 nm			10 ms
Fluorometer	CDOM / FDOM, Chlorophyll A, Fluorescein Dye, Oil-Crude, Oil-Fine, Optical Brighteners, Phycocyanin, Phycoerythrin, PTSA Dye, Rhodamine Dye, Tryptophan				

\* max. depth 100 m

\*\* output is non-linear above 1250 FTU

#### Possible configuration:





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## Delivery

The CTD75M will be delivered in a compact, robust and water resistant transport case including cables, connection plugs, instruction manual, USB stick with software, etc.

O-ring



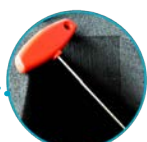
Software



Batteries



T-handle  
hexagon key



Silicone grease



Instruction  
manual



Configuration  
cable



Magnetic rod



RS232 to USB  
converter



CTD75M



Distributor:



Sea & Sun Technology GmbH  
Arndtstrasse 9-13  
24610 Trappenkamp Germany  
+49 4323 91 09 13  
+49 4323 91 09 15  
sales@sea-sun-tech.com  
www.sea-sun-tech.com