

CTD115M

Online and memory probe



Sea & Sun
Technology

Main features:

- depth range up to 500 m
- easy handling
- non-corrosive titanium housing
- max. 16 channels
- up to 11 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. 11
on the bottom cap

standard sensors:

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

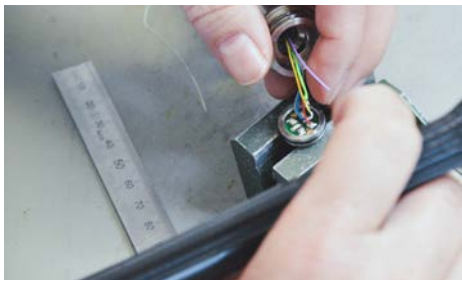
additional sensors:

- Oxygen
- Turbidity
- pH (also H₂S resistant)
- Redox (ORP) also H₂S resistant
- Fluorometer
- Light irradiance (PAR)
- Currentmeter (with compass)
- Altimeter
- Transmissometer



03/2020 - All product specifications subject to change without notice - Photos: www.stock.adobe.com, own archive





The CTD115M is a high quality, high accuracy online multiparameter probe with max. 11 sensors of the bottom cap for oceanographic and limnological measurement of physical, chemical and optical parameters for depth up to 500 m.

The probe can be equipped with a maximum of nine sensors mounted on the bottom cap. Those 9 channels can be extended to max. 16 channels when combined with external sensors.

Software:

The supplied Standard Data Acquisition Software package "SST-SDA" includes the handling of the logging process and the display of online 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.

The "SST-SDA" is a part of our shipment.

Memory:

Data are stored in a standard flash memory card with a capacity limited to 128 Mbytes by the internal firmware. 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.

Electrical specifications:

- Supply voltage: 9...30V DC
- Power consumption: approx. 0.5 W (sensor-dependent)
- Serial port: RS-232 (optional FSK)
- Data sampling rate: 5 CTD sets/s
- Connector: SUBCONN MCBH4M Ti

Mechanical specifications:

Materials:

Housing: titanium, grade 2
Connector: titanium, neoprene

Dimensions and weights:

Length (housing):
- 410 mm
Length (overall with connector):
- approx. 680 mm
Diameter (housing): 115 mm
Weight (in air): approx. 9 kg

PC requirements:

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

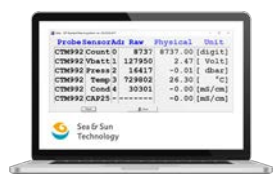
All calculations correspond to the current UNESCO formulae.

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

Equipment

1. Winch
2. FSK-Interface
3. Cable

Possible configurations:



Computer for data acquisition

RS232



FSK Interface

FSK



Winch

Cable



CTD115M

Ordering:

30500016 CTD115M

sensors and equipment available on request



Standard sensors:

Sensor	Principle	Range	Accuracy	Resolution	Response time
Pressure (depth)	piezo resistive	5, 10, 20, 50 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 ₂ S resistant)	combined electrode	4 – 10 pH 0 – 14 pH	± 0.02 pH	0.0002 pH	1 s
Redox (standard or H ₂ 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 s (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
Currentmeter with compass	inductiv	± 2.00 m/sec			
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

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Delivery

The CTD115M will be delivered in a compact, robust and water resistant transport case including cables, connection plugs, instruction manual, USB stick with software, etc.



Distributor:



edaphic scientific
environmental research & monitoring equipment



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