

CTD_{plus} 100, 500 AND 1000 A NEW GENERATION OF CTD INSTRUMENTS



Features:

- High resolution and accuracy
- New sensor concept, conductivity and temperature in the same sample volume
- Autonomous battery powered system
- LC display
- User programmable by cursor keybuttons
- Internal calculation of salinity, density and sound speed according to UNESCO tables and standards
- Autocalibration functions for simple recalibration of sensors
- Time series sampling for moorings
- Spatial series sampling for profiling
- Light weight, small size, easy handling
- Serial RS 232 interface

The CTD plus 100, 500, and 1000 are a family of CTD „hang alone“ systems for use in water depths of 100, 500 and 1000 meters respectively.

For simple use they are activated by three cursor keybuttons to take samples and store them in solid state CMOS RAMs, to read out samples on display, to continuously sample, calculate and display parameters.

For field analysis and processing the SiS fieldsoft program for MS-DOS is included.

CTD_{plus} 100 • 500 • 1000

Modes of Operation

Program selection

Three magnetic cursor switches for complete stepping through user menu allows the choice of operational modes:

Main menu

SAMPLE READ OUT CONTINUOUS

Sampling mode submenu

Setting of parameters for time series sampling (delay time, sampling time increment) and spatial series sampling (initial pressure, sampling pressure increment, maximum pressure according to memory capability and depth capability of instrument).

t_{delay}=0.30hrs.min t_{incr}=0.05hrs.min

P_{init}=080dbar P_{incr}=0.1dbar P_{end}=090dbar

SAMPLING ACTIVATED BY TIMING-PARAMETER

SAMPLING ACTIVATED BY DEPTHS-PARAMETER

p=072.55dbar T=10.251°C C=40.255mS/cm

S=36.934‰ σ_t=28.749kg/m³ v=1494.3m/s

Sampling initialisation

Read out

Selection of displayed parameters (measured and/ or calculated). Up and down scrolling through data. Optional ASCII data output via serial interface.

Continuous operation

Real time acquisition and calculation of selected parameters (measured and/ or calculated).

Specification

Parameter	Range	Resolution	Accuracy	Stability	Response time
conductivity	1 - 65 ms/ cm	1 µS/ cm	10 µS/ cm	2 µS/ cm month	20 ms
temperature	-2 - +40°C	0.001 °C	0.005 °C	0.001 °C/ month	20 ms
pressure	0-100 dbar 0-500 dbar 0-999 dbar	0.01 dbar	0.05 %fs	0.01 %/ month	10 ms
salinity	2 - 42	0.001	0.019	0.004 / month	-
density	0 - 65 kgm ⁻³	0.001 kgm ⁻³	0.016 kgm ⁻³	0.003 kgm ⁻³ / month	-
sound speed	1392 - 1724 msec ⁻¹	0.1 msec ⁻¹	0.02 msec ⁻¹	0.004 msec ⁻¹ / month	-

Sampling rate: Spatial mode user selectable > 0.1 dbar
Time mode user selectable 0:00 h:min < t_s < 10:00 h:min
Real time data acquisition 3 msec for a complete CTP cycle of 17 bit resolution

Memory: CMOS solid state with 1000 data sets. Upgrade as option

Power supply: 2 D cells: 10 hours continuous operation (with Alkaline cells)
up to 40 days time sampling (with Alkaline cells)
External supply 1.4 V - 7.5 V, 1.5 W

Outer dimensions: 522 mm (pressure case), 181 mm (battery module), 70 mm diameter

Weight: 4.5 kg in air with battery module and batteries.

Available options: Mounting cage
Stowage case for CTD without mounting cage
Stowage case for CTD with mounting cage

SiS reserves the right to change specifications without prior notice



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