

# *STD/CTD - model SD204*

*with multi-parameter & auto range facilities*

- *Salinity*
- *Temperature*
- *Sound velocity*
- *Turbidity (auto range)*
- *Conductivity*
- *Depth*
- *Oxygen*
- *Fluorescence (auto range)*



*SD204*



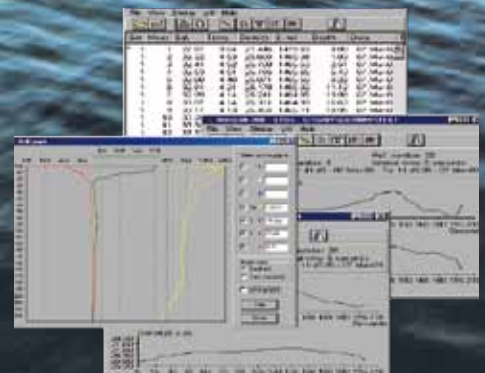
*SD204 in transport/storage case*



*SD204 with optional sensors*

## *Features:*

- *Compact & robust design*
- *Long term stability sensors*
- *High memory capacity*
- *Sonar equipment compatibility*
- *Year-long battery capacity*
- *Depth to: 6000 meters*
- *Windows based software*
- *Output in physical units*
- *On-line plotting*
- *Auto range for turbidity & fluorescence*



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# STD/CTD - model SD 204

The SD204 measures, calculates and records sea water conductivity, salinity, temperature, depth (pressure), sound velocity and water density. Three optional sensors can be added, f. example: dissolved oxygen, fluorescence and turbidity. For optional sensors with several sensitivity ranges, the SD204 has auto range capability. Data are recorded in physical units. The accompanying software, SD200W, contains versatile functions for programming, post- and online data processing and presentations: - multigraph, online plotting, density and depth calculations (weighed profile). The program is continuously extended according to customer's requests. The programmed settings and calibration coefficients are maintained in nonvolatile eeprom, and will not be changed/lost if power is disconnected. Robustness and complete protection from leakage is obtained by vacuum molding the electronic and all other components in solid polyurethane. On/Off-switching is by a magnetic key or from keyboard. A sealed battery compartment contains two replaceable C-cells. In practical operation the battery capacity is sufficient for continuous year-around operation with good margin. The instrument is equipped with a mooring bar with a shackle at each end. Data are recorded in physical units and simultaneously transmitted via an RS232 I/O watertight connector for on-line use.

For remote readout and monitoring, the manufacturer offers several options: Communication Unit CU901, for two-way communication via Iridium satellite, GPRS with embedded web server, GSM and UHF/VHF,



## Specifications:

**Conductivity:** Inductive cell  
**Range:** 0 to 70 mS/cm  
**Resolution:** 0.01 mS/cm  
**Accuracy:** +/- 0.02 mS/cm

**Salinity:** Calculated from C,T & D  
**Range:** 0 to 40 ppt  
**Resolution:** 0.01 ppt  
**Accuracy:** +/- 0.02 ppt

**Temperature:**  
**Range:** -2 to +40°C  
**Resolution:** 0.001°C  
**Accuracy:** +/- 0.01°C  
**Response time :** 0.2 sec

**Pressure:** Specify desired depth range with order  
**Ranges:** 500, 1000, 2000, -- 6000 m)  
**Resolution:** 0.01 dbar (m)  
**Accuracy:** +/- 0.01% FS (-2 to +40°C)  
**Response time:** 0.1 sec

**Sound velocity:** Calculated from S,T & D  
**Range:** 1300 to 1700 m/s  
**Resolution:** 1 cm/s  
**Accuracy:** +/- 5 cm/s

**Dissolved oxygen:** (optional)  
**Sensor type:** SAIV205  
**Range:** 0 to 20 mg/l  
**Resolution:** 0.01 mg/l  
**Accuracy:** +/- 0.2 mg/l

**Fluorescence:** (optional)  
**Sensor type:** Fluorescein/ Chlorophyll/Rhodamine/CDOM  
**Ranges:** 2.5, 7.5, 25, 75 ug/l  
selectable/auto range  
**Resolution:** 0.03 ug/l

**Turbidity:** (optional)  
**Sensor type:** Backscatter  
**Ranges:** 12.5, 62.5, 250, 750 FTU  
selectable/auto range  
**Linearity:** < 2%

**Real time clock:** +/- 2 sec/day  
**Modes:** STD/CTD with/without sound velocity, oxygen and optional sensor.

**Intervals:** 1 sec to 180 min.

**Memory:** CMOS SRAM  
**Capacity:** 56000 data sets of STD/CTD

**Data output:** RS232 ASCII code.1200-9600 baud  
1 start, 7 data, 1 stop, even parity or  
1 start, 8 data, 1 stop, no parity  
selectable via menu

**Power:** 2 ea. 3.6V lithium C-cells.  
Recommended type: SAFT LSH14  
(Sufficient for 1.500.000 data sets)

**External:** 10 – 30VDC

**Material:** Vacuum molded polyurethane and titanium

**Dimensions:** Length 400 mm. Diameter 60 mm

**Weight:** In air: 2 kg. In water: 0,8 kg.

**Packing:** Suitcase (534x427x157 mm)  
Grossweight 5,5 kg

**Accessories:** On/Off magnetic key,  
(included) PC communication cable 2,5m,  
MINISOFT SD200W program  
Operating Manual

**Warranty:** Two years against faulty materials  
and workmanship