

Temperature & Depth Recorders

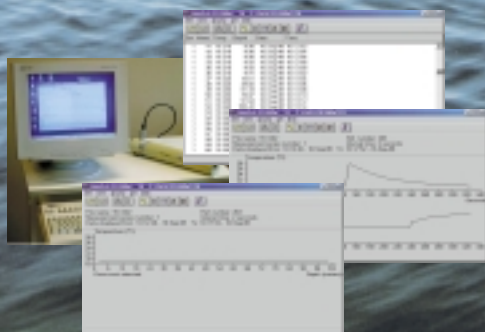
models

TD301 – TD302 – TD303

Accuracy: Depth 0.01% - Temperature 0.01 deg. C



TD301/3



Applications:

- *Bathymetry*
- *Temp & depth profiles*
- *Autonomous recording*
- *R.O.V.*
- *Towed systems*

Features:

- *Compact & robust design*
- *Long term stability sensors*
- *High memory capacity*
- *Year-long battery capacity*
- *Windows based software*
- *Output in physical units*
- *On-line plotting*

web: www.saivas.no

Extended version TD302:



- *Temperature*
- *Depth/Pressure*
- *Turbidity*
- *Flourescence*
- *Oxygen*

Extended memory capacity

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Temperature & Depth Recorders

The TD301/TD302/TD303 are precision instruments measuring temperature and depth (pressure) in the sea, lakes, water reservoirs, groundwater, rivers and on R.O.V. etc. The sensors are Plug- and -Play compatible with PC's. All settings like measuring interval, real time clock etc, are accessed via menu. All the programmed settings and calibration coefficients are maintained in non volatile eeprom, and will not be changed/lost if power is disconnected. Up to three optional sensors can be added on the TD302: dissolved oxygen, fluorescence and turbidity. The models TD301/TD302 have a built-in replaceable battery for self-contained recording applications. On/Off- switching is by a magnetic key or from key-board. The model TD303 is for on-line applications with external power supply. Robustness and complete protection from leakage has been obtained by vacuum molding the electronic and all other components in solid polyurethane. All units have a built-in data memory. The models TD301 and TD303 have a "ring memory" where the oldest data will be overwritten when memory is full. The TD302, which has a much larger memory, will seize recording when memory is full, but continue measurements when on-line cable is connected. Data are recorded in physical units and simultaneously transmitted via an RS-232 I/O water tight connector for on-line use. A comprehensive PC-program is supplied with the units for easy communication, programming and presentation/processing of data.



TD302 in it's case

Specifications:

Pressure:

Ranges: (absolute) 20,50,100,200,500 - 6000 m*
 Resolution: 0.001 dbar (m)
 Accuracy: +/- 0.01% FS
 Response time: 0.1 sec

* Specify desired depth range with order

Temperature:

Range: -2 to +40°C
 Resolution: 0.001°C
 Accuracy: +/- 0.01°C
 Response time: < 0.5 sec

Dissolved oxygen: (optional) TD302 only

Sensor type: SAIV205
 Range: 0 to 20 mg/l
 Resolution: 0.01 mg/l
 Accuracy: +/- 0.2 mg/l

Fluorescence:

(optional) TD302 only
 Sensor type: Seapoint (Chlorophyll/Rhodamine/CDOM)
 Ranges: 2.5, 7.5, 25, 75 µg/l
 Resolution: 0.03 µg/l

Turbidity:

(optional) TD302 only
 Sensor type: Seapoint
 Ranges: 12.5, 62.5, 250, 750 FTU
 Linearity: < 2%

Memory:

CMOS SRAM
 Capacity:
 TD302 77000 data sets of TD
 TD301/303 22000 data sets of TD
 (ring memory)

Data output:

RS232 ASCII code.
 1200-9600 baud, 1 start,
 7 data, 1 stop, even parity
 (real time & recorded)

Interval:

Programmable: 1 sec to 180 min

Real time clock: +/- 2 sec/day

Material:

Vacuum molded polyurethane and
 Stainless steel (316)

Power:

TD302: 2 ea 3.6V lithium C-cells.
 Recommended type: SAFT LS26500/
 Electrochem BCX72C
 (Sufficient for 1.500.000 data sets)
 TD301: 2 ea 3.6V lithium AA-cells.
 Recommended type:
 SAFT LSH 14500
 (Sufficient for 1.000.000 data sets)
 TD303: External power supply 7 - 16 VDC

Current consumption:

Active: < 10 mA
 Quiescent: < 60µA

Dimensions:

TD302: Length 400 mm. Diameter 60 mm
 TD301/303: Length 170 mm. Diameter 45 mm

Weight:

TD302: In air: 2.5 kg. In water: 1.3 kg.
 TD301/303: In air: 0.5 kg. In water: 0.3 kg.

Accessories:

Common: MiniSoft SD200W program diskette
 Operating Manual
 TD301/302: On/Off magnetic key,
 PC communication cable (3m)
 TD303: Connector and 1.5m pigtail

Warranty:

Two years against faulty materials
 and workmanship.

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