Tide recorder - model TD304

with integrated temperature sensor Pressure/Depth: accuracy: 0.01%, resolution: 0.0001 dbar



Tide Recorder - model TD304

The TD304 is a high precision instrument for recording/monitoring of tide or water level and also temperature. Optional sensors can be added: dissolved oxygen, turbidity and fluorescence. For optional sensors with several sensitivity ranges, the TD304 has auto range capability. The accompanying software, SD200W, contains versatile functions for programming, post-and online data processing and presentations: - multigraph, online plotting, density and depth calculations. 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 has been 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. The instrument is equipped with brackets for attachment to mooring fixture. The TD304 is available as absolute or

reference types. The reference type is vented through the connector and a cable with internal air pipe. 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,

Designations:

TD304A: absolute type (Tide). **TD304R**: reference (gauge) type(Water level).



TD304 in it's case

Specifications:

Pressure:Specify desired depth range with orderRanges:(absolute)20, 50, 100, 200, 500 m

Ranges: (reference) 10, 20, 50, 100m

Resolution: $0.0001 \, dbar \, (m)$

Accuracy: +/- 0.01% FS (-2 to +40'C)

Response time: 0.1 sec

Temperature:

 Range:
 -2 to +40°C

 Resolution:
 0.001°C

 Accuracy:
 +/- 0.01°C

Response time: < 0.2 sec

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: Fluorscein/Rhodamine/Chlorophyll/CDOM

Range: 2.5, 7.5, 25, 75 ug/l

Selectable-/auto range

Resolution: 0.03 ug/l

Turbidity (optional):

Sensor type: Backscatter

Range: 12.5, 62.5, 250, 750 FTU

Selectable-/auto range

Linearity: < 2%

Real time clock: +/- 2 sec/day

Interval:

Programmable: 1 sec to 180 min.

Integration time: Programmable: 2 - 240sec

(pressure measurements)

Memory: CMOS SRAM

Capacity: 65000 data sets of TD

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 supply if used 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 (534x4270x157 mm)

Grossweight 5.5 kg

Accessories: On/Off magnetic key,

(included) PC communication cable 2,5m,

MINISOFT SD200W program

Operating Manual

TD304R: Cable (15m) with air pipe and on-land

connector unit.

Warranty: Two years against faulty materials

and workmanship

SAIV A/S Environmental Sensors & Systems, Post Office Box 3513 5845 Bergen, Norway Tel:+47 56 11 30 66 Fax:+47 56 11 30 69 e-mail: info@saivas.com web: www.saivas.no