

DST centi - T

Data Storage Tag centi-Temperature

Overview

Dimensions (diameter x length): 15mm x 46mm

Sensor: Temperature

Standard temperature range: -1°C to +40°C

Temperature accuracy: +/-0.1°C

Memory size: 174,000 measurements (optional 523,800)

Battery life: 7 years

Housing material: Alumina (implantable, biocompatible ceramic material)



Description

The DST centi-T is a small submersible data logger with a temperature sensor. Recorded data is stored in its internal memory with a real-time clock reference for each measurement.

The DST centi-T is supported by the SeaStar software and the Communication Box which serves as an interface between the logger and a PC. Communication between the logger and the Communication Box is wireless.

In SeaStar, the user sets the start time, start date and sampling interval before starting the recorder. Up to seven different intervals can be set for the same measurement sequence. This is especially useful when more frequent measurements are needed at a certain time period.

After recovering the DST recorded data is uploaded via to SeaStar where results are displayed both in graphic and tabular form. After retrieving the data, the DST can be re-programmed and reused as long as the battery lasts.

A set of Communication Box and SeaStar software needs to be purchased with the first order. Star-Oddi also offers protective logger housings for use at fixed locations or harsh environments.

Features on Request

Extended memory

DST centi-T and DST centi-TD can be delivered with an extended memory capacity of 523,800 measurements in total (DST centi-ex).

Temperature calibration outside standard range

Temperature calibration outside of standard ranges or for smaller ranges is available for all products on request.

Examples of Application

DST centi-T is mostly used as a stand-alone logger for sampling temperature in underwater environments, attached to deployment lines, moorings or other gear. It can also be used for measuring temperature in soil or air. Another usage is measuring temperature values in animals. The DST centi-T can be implanted in animals.

The DST centi-T is suitable for studies in e.g.:

- Temperature fluctuations in animals
- Oceanography
- Marine biology
- Hydrology
- Agricultural research projects
- Aquaculture studies
- Pharmaceutical research studies
- Any other field where temperature recording is required.

Technical Specifications

Sensors	Temperature
Size (diameter x length)	15mm x 46mm
Housing material	Alumina (Ceramic)
Weight (in air/in water)	in air: 19g in water: 12g
Battery life	7 years
Memory type	Non-volatile EEPROM
Memory capacity	174,000 measurements
Memory capacity bytes	261,819 bytes / temperature 1.5 bytes
Memory extension option	786,099 bytes (EEPROM memory)
Memory management	Custom programming
Data resolution	12 bits
Temperature resolution	0.032°C (0.058°F)
Temperature accuracy	+/-0.1°C (0.18°F)
Temperature range	-1°C to +40°C (30°F to 104°F)
Temperature response time	Time constant (63%) reached in 20 sec.
Pressure tolerance	Up to 3500m (customer specified)
Data retention	25years
Clock	Real time clock Accuracy +/- 1 min/month
Sampling interval	In second(s), minute(s), or hour(s)
Number of different sampling intervals	1 to 7
Communications	Communication Box, RS-232C 9 pin serial or USB
Attachment hole	0.9 mm (in diameter)

* For sampling interval of 10 minutes. ** Outside ranges available upon request. Specifications may change without notice.