# **DST micro-T**

## Ultra small thermo logger

#### Overview

**Dimensions** (diameter x length): 8.3mm x 25.4mm

**Sensor**: Temperature

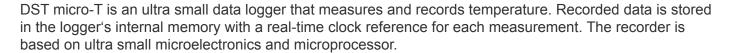
Standard temperature range: 0 to +45°C

Temperature accuracy: +/- 0.2 °C Memory size: 43,000 measurements

Battery life: 18 months

Housing material: Alumina (implantable, biocompatible ceramic material)

### **Description**



The DST micro-T is supported by the SeaStar and Mercury 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 the software, the user sets the start time, start date and sampling interval before starting the recorder. A single interval can be defined, in second(s), minute(s) or hour(s). Optionally up to seven different intervals can be set for the same measurement sequence. Number of measurements is then defined for each interval. This is especially useful when more frequent measurements are needed at certain time periods.

After recovering the DST recorded data is uploaded to the software where the results are displayed both in graphic and tabular form. When recorded data has been retrieved, the DST can be re-programmed and reused as long as the battery lasts. Each DST micro-T has its serial no. marked on the housing.

A set of Communication Box and Mercury (or SeaStar) software needs to be purchased with the first order.

### **Features on Request**

### **Applications**

DST micro-T is designed as an implantable temperature logger for animals, with its biocompatible material, spherical shape and small size. The logger can also be fitted in tight spaces, small packages or vials, for heat studies. With its waterproof housing and great pressure survival, the DST micro-T can be used for collecting temperatures in waters or liquids. The housing is resistant to many different types of chemicals and liquids.

The DST micro-T temperature logger is suitable for studies within e.g.:

- Laboratory animal science
- Preclinical researches
- Quality control (e.g. packaging)
- Tagging of small fish and marine animals
- Industries where logger size and weight is critical



# **Technical Specifications**

Sensors	Temperature
Size (diameter x length)	8.3 mm x 25.4mm
Housing material	Alumina (Ceramic)
Weight (in air/in water)	In air: 3.3g In water: 1.9g
Battery life	18 months
Memory type	Non-volatile EEPROM
Memory capacity	43,000 measurements
Memory capacity bytes	65,214 bytes / temperature 1.5 bytes
Memory management	Custom programming
Data resolution	12 bits
Temperature resolution	0.032°C (0.058°F)
Temperature accuracy	+/- 0.2 °C (+/- 0.36°F)
Temperature range	-1 to +40°C (30.2°F to 104°F)
Temperature response time	Time constant (63%) reached in 10 sec.
Data retention	25 years
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	(diameter) 0.5 mm
Pressure range (user defined)	Down to 100 bar (customer defined)
Operation temperature	-23° to + 85°C

<sup>\*</sup> For sampling interval of 10 min. \*\* Outside ranges available upon request. Specifications may change without notice.