

PERSONAL SERVICE

Customers are Star-Oddi's best advisors. We are always looking for new ideas and ways to improve our products. Please contact us if you have any suggestions for us.

STAR-ODDI LTD.

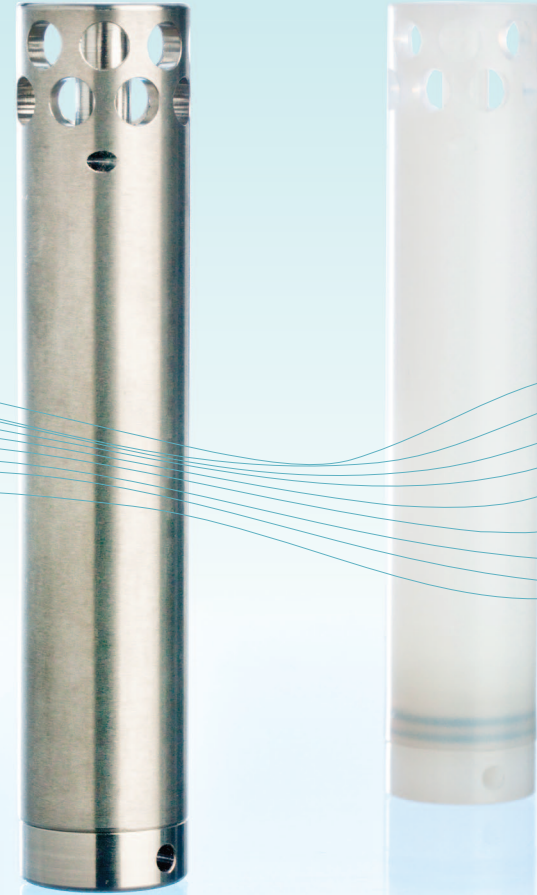
Founded in Iceland in 1985, Star-Oddi has become recognized as one of the world's leading manufacturers of technology for research and industrial use.

Since 1993, Star-Oddi has been developing and manufacturing miniature data loggers with various sensors.

Our mission is to provide unique, reliable and innovative research tools to scientists collecting data on animals and aquatic environments.

Starmon mini

Underwater Temperature Recorder



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STARMON MINI

The Starmon mini records water temperature at a user defined interval and stores the data in its internal memory. The recorder is supported by the Communication Cable and the SeaStar software. Every Starmon recorder is calibrated in a stable, high accuracy temperature bath and has its individual calibration constants stored in its memory. Every Starmon recorder is delivered with a calibration certificate. Starmon mini is available in plastic (400m depth range) or titanium (11,000m depth range) housing.

EASY TO USE

Using Starmon mini is simple and easy. The end cap of the housing is removed and the recorder is connected to a PC computer with the Communication Cable, either to a 9 pin RS232C serial port or USB. The user connects with the recorder through the SeaStar software and defines the sampling interval and start time of recordings.

After the recorder has been started, the cable is unplugged, end cap

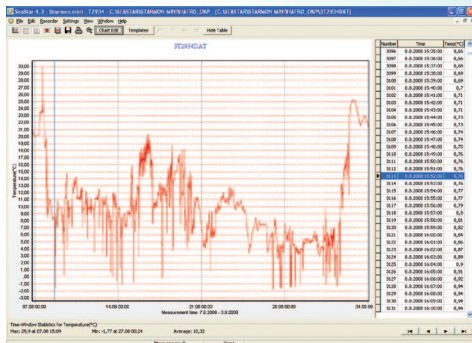
is screwed firmly on and the recorder is ready for deployment. After the measuring period, data is uploaded from the recorder into a PC computer using the Communication Cable and SeaStar software. In SeaStar the data is shown in graphic and tabular form along with date and time of each measurement. Data can be imported into other data processing software.

APPLICATIONS

The Starmon mini is designed for use in oceans, rivers and lakes and has a reputation for being a reliable instrument in demanding environments. Starmon mini is mainly used for researches within the fields of marine biology, oceanography, hydrology, aquaculture, oil & gas, geology, geothermal and boreholes.

ACCESSORIES

Customers can optionally purchase a stainless steel housing for extra protection and for more flexible mounting options. It can be useful when securely fastening the recorder to a mooring, buoy or underwater gear. A battery replacement kit for Starmon mini is available.



SeaStar software



Research vessel

FEATURES

- Temperature accuracy better than $\pm 0.025^{\circ}\text{C}$ or $\pm 0.05^{\circ}\text{C}$
- Long battery life
- Large memory size
- Replaceable battery
- Robust and non-corrosive housing
- User friendly software for Windows®

TECHNICAL SPECIFICATIONS

Parameter	Value
Sensor	Temperature
Size (diameter x length)	25mm x 130mm
Volume	63.8cm ³
Housing material	Plastic or titanium
Survival depth	Plastic: 400m, titanium: 11,000m
Weight	Plastic housing: 80g Titanic housing: 190g
Battery life	10 years*
Memory type	Non-volatile EEPROM
Memory capacity	262,000 measurements ($\pm 0.025^{\circ}\text{C}$ acc.) 350,000 measurements ($\pm 0.05^{\circ}\text{C}$ acc.)
Memory extension option	787,500 bytes or 1,048,500 bytes (each measurement is 2 bytes with $\pm 0.025^{\circ}\text{C}$ acc. and 1.5 byte with $\pm 0.05^{\circ}\text{C}$ acc.)
Memory management	User programmed intervals
Temperature range	-2°C to +40°C (28°F to 104°F) Outside ranges available upon request
Temperature resolution	0.001°C (0.0018°F) or 0.013°C (0.023°F)
Temperature accuracy	Better than $\pm 0.025^{\circ}\text{C}$ (0.045°F) or $\pm 0.05^{\circ}\text{C}$ ($\pm 0.09^{\circ}\text{F}$)
Temperature response time	Plastic: Time constant (63%) is 18 sec. and final value reached in 3 min.** Titanium: Time constant (63%) is 6 sec. and final value reached in 1 min.**
Data retention	25 years
Clock	Real time clock Accuracy ± 1 min/month
Fastest possible sampling interval	1 second
Communications	RS-232C 9 pin serial or USB
Attachment hole	2.8mm (in diameter)

* For a sampling interval of 10 minutes
** For a 40°C (104°F) temperature step response in stirred liquid
Specifications may change without notice