

#### 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.

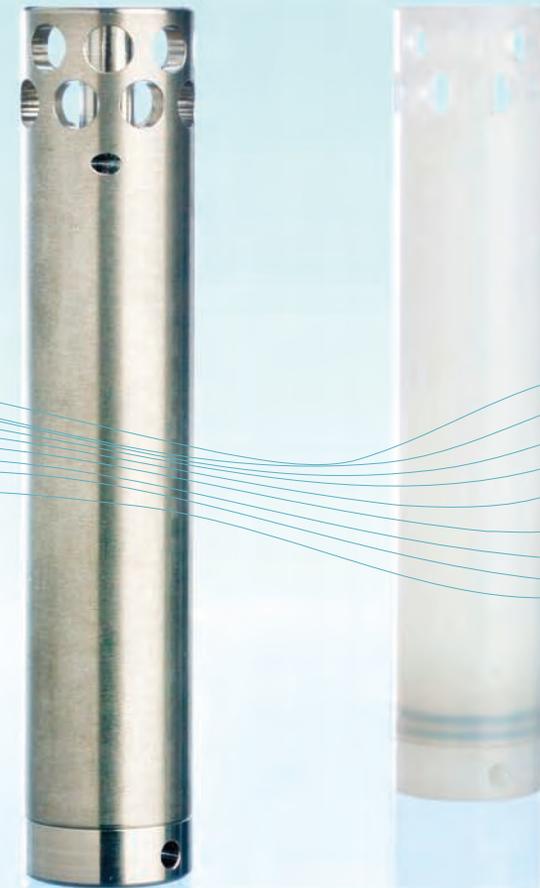
Founded in Iceland in 1985, Star-Oddi has become recognized as one of the world's leading manufacturers of technology for research and industrial use.

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



## STAR : ODDI

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## STAR : ODDI

Logging Life Science

[www.star-oddi.com](http://www.star-oddi.com)

## ROBUST AND DURABLE

Starmon mini is a submersible temperature logger designed to withstand harsh environments and long-term deployment. The logger is known for durability with its robust and non-corrosive housing, accuracy, stability, large memory size and long life replaceable battery. It comes in plastic or titanium housing, with depth ratings of 400 m and 11000 m respectively. Temperature measurements are stored into the logger's internal memory. Each recorder is delivered with a calibration certificate.

## EASY TO USE

By unscrewing the end cap of the housing a cable plug becomes accessible. The communication cable connects directly from the logger to a PC computer. The SeaStar application software is used to start recordings and retrieve data. In SeaStar the user sets the start date & time and sampling interval before starting the logger. After the logger start-up, the cable is unplugged, end cap screwed firmly on and the logger is ready for deployment. After recovery of the logger, it is connected to a PC computer for data download.

Measurements are displayed both in graphic and tabular form together with date & time. Data can be exported to other programs if desired.

## FAST RESPONSE

A fast response temperature logger version is available. The time constant is then increased from 18 sec. to 1 sec. This feature is useful when measuring while sinking or towing.

## VARIOUS 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

A set of communication cable and SeaStar software needs to be purchased with the first order. A stainless steel housing for extra protection is available. 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.

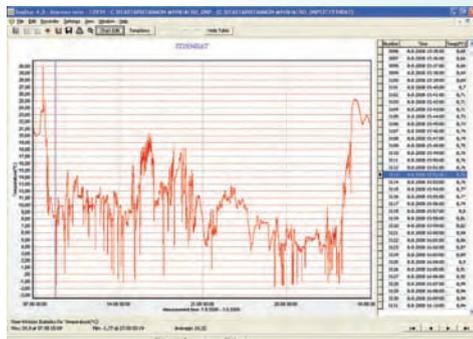
## ADVANTAGES AT A GLANCE

- Accurate and reliable
- Robust and durable
- Large memory size
- Replaceable long life battery
- Fast temperature response

### TECHNICAL SPECIFICATIONS

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Sensor	Temperature
Size (diameter x length)	25mm x 130mm
Volume	63.8cm <sup>3</sup>
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
Memory increase (optional)	393,750 or 524,250 measurements
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)
Temperature accuracy	Better than +/-0.025°C (0.045°F)
Temperature response time	Plastic: Time constant (63%) is 18 sec. and final value reached in 3 min.** Option for fast response of 1 sec. 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. Battery replaceable.  
\*\*For a 40°C (104°F) temperature step response in stirred liquid.  
Specifications may change without notice.



Temperature data displayed in the SeaStar software



Starmon mini deployed in a river