

A Division of AMIRIX Systems Inc.

## Minilog 8-bit Data Logger

*Rugged, dependable temperature and/or depth logger*

Minilog is a miniature data logger that records temperature or temperature and depth information. Minilogs are waterproof, extremely rugged and ideal for a number of data collection applications including:

- Monitoring temperatures in alpine lakes;
- Small stream management programs;
- Measuring temperature changes in lakes and ocean areas to determine the impact on local marine life;
- Soil temperature measurements and monitoring;
- Aquaculture site observation;
- Waste water temperature monitoring;
- Long line thermistor chains with multiple loggers;
- Food, drug and medical supply transportation monitoring.



Minilog is available in several options:

Product Name	Description
8 - bit Minilog TR*	Temperature sensor only; Rugged plastic case
8 - bit Minilog TDR	Temperature & depth sensors; Rugged plastic case
Memory	16K and 64K

# Data Logger

**Contact us**

11-05-09-002

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Specifications may change without notice.

## Temperature Range

The temperature resolution of the Minilog depends on the range specified. Minilog is available in three standard ranges but custom set ups are available. [Resolution is defined as the fineness of detail that can be distinguished in a measurement. Accuracy is defined as the ability of a measurement to repeatedly match the actual value of the quantity being measured.] Resolution and accuracy are:

Standard Range	Resolution	Accuracy
-4 to 20 °C	0.1 °C resolution	± 0.2 °C accuracy
-5 to 35 °C	0.2 °C resolution	± 0.3 °C accuracy
0 to 40 °C	0.2 °C resolution	± 0.3 °C accuracy

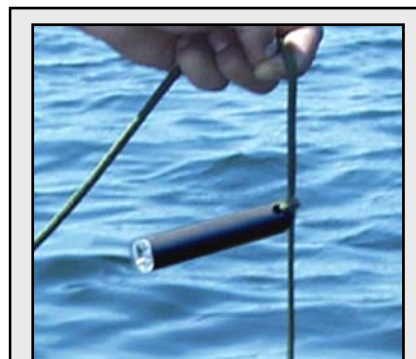
## Depth Sensors

Minilogs with depth sensors [TDR's] are available in six factory preset depth ranges. This chart describes the resolution and accuracy for each sensor range in sea water.

Depth Ranges	Resolution	Accuracy
34 m	0.2 m	± 1.0 m
68 m	0.4 m	± 2.0 m
136 m	0.8 m	± 4.0 m
204 m	1.2 m	± 6.0 m
340 m	2.0 m	± 10.0 m
680 m	4.0 m	± 20.0 m

## Specifications:

<b>Case</b>	Polycarbonate plastic
<b>Weight</b>	41 g in air; 12 g in water
<b>Size</b>	22 mm x 95 mm long
<b>Thermal Time Constant</b>	45 seconds in stirred liquid.
<b>Maximum Depth</b>	Rugged model: 1000 m
<b>Memory Capacity</b>	Approximately 8000 readings
<b>Full Memory Download</b>	Temperature only: 3 minutes Temperature & depth: 6 minutes
<b>Logging Duration</b>	2 ¼ hours to 4 years
<b>Logging Interval</b>	User programmable from 1 second to 6 hours
<b>Battery Life</b>	Temperature only: 4 years or 1000 full deployments Temperature & Depth: 4 years or 700 full deployments
<b>Data Retention</b>	20 years
<b>Memory Type</b>	Non-volatile EEPROM
<b>Power Supply</b>	Single Lithium Cell, ½ AA size
<b>Clock Drift</b>	± 4 seconds per day [not tested]



For field deployments, the Minilog TR unit is attached to a cable through a 6 mm [¼"] hole in the non-sensor end.

For more information on specific applications of Minilog technology or technical details, please contact VEMCO.

## How to Order a Minilog

When ordering a Minilog, specify the product name [TR or TDR], desired temperature range [ex. -4 to 20 C], desired depth range [ex. 68 m, if applicable], and if any options are required. Temperature and depth ranges are listed above.