A Division of AMIRIX Systems Inc.

Minilog12, 12-bit Data Logger

Rugged, high-resolution temperature logger

Data Logger

The Minilog12 is a high-resolution data logger that records and stores temperature and time information. Minilog12's are waterproof, extremely rugged and ideal for a number of data collection applications. The device is used in combination with a Minilog PC interface unit for study initialization and data download. Some applications for the Minilog12 include:

- 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.

The Minilog12 has no external electrical connections that could leak and users typically experience four years of battery life.

The Minilog 12 is used to collect temperature data for aquatic animal behaviour monitoring purposes.

Minilog12 equipment is available in the following options:

Product Name	Description
12 - bit Minilog TR	Temperature sensor only; Rugged plastic case
Optional memory	32 and 64 K [16K is standard]
PC interface & software	Connects to computer via DB9 connector

A single PC interface box can be used with a number of data loggers. However, for users with multiple data loggers, additional PC interface boxes can decrease the time required to download data by using several computers.

Contact us

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Specifications:

Case	TR rugged model: polycarbonate plastic
Weight	TR rugged model: 41 g in air; 12 g in water
Size	TR rugged model: 22 mm x 95 mm long
Maximum Depth	TR rugged model: 1000 m
Thermal Time Constant	45 seconds in stirred liquid.
Memory Capacity	Approximately 10,800 readings
Full Memory Download	6 minutes for 16 k standard memory version
Logging Duration	3 hours to 4 years
Logging Interval	User programmable from 1 second to 6 hours
Battery Life	4 years or 1200 full deployments
Data Retention	20 years
Memory Type	Non-volatile EEPROM
Power Supply	Single Lithium Cell, ½ AA size
Clock Drift	± 4 seconds per day

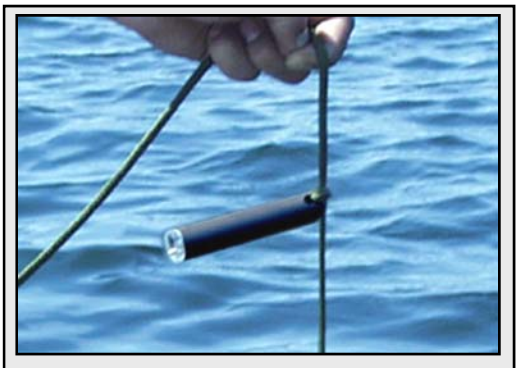
Software:

VEMCO's Minilog software is designed to be used in a Windows environment and is included with the PC interface unit. Minilog software has a "delayed start" feature that allows the user to initialize a study and begin recording data at some time in the future. This option is useful for the synchronized start of a study with multiple loggers or when a study is to take place some distance away. Data is downloaded from the Minilog12 and stored as a binary file. The binary data file can then be displayed graphically or converted to an ASCII data file.

Temperature Range

Minilog12 is available in one standard temperature range. The resolution and accuracy of the Minilog12 depend on the temperature range, and are listed in the table below. 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.

Standard Range	Resolution	Accuracy
-5 to 40 ^{o}C	0.015 ^{o}C	± 0.1 ^{o}C



For field deployments, the Minilog 12 TR unit is attached to a cable through a 6 mm [¼"] hole in the non-sensor end.

How to Order Minilog12

When ordering the Minilog12, please specify the following:

- Product name [ie. TR or TX],
- Required standard temperature range,
- If additional memory is needed, and
- If a PC interface box is needed.