

# TruTrack Data Logger

## milliVolt Logger Model mV-HR mark 4

Two Channel, High Resolution  
(16 bit) Voltage Data Logger.

The mV-HR is a small Two Channel High Resolution (16 bit) Voltage data logger housed in a rugged 304 stainless steel case. It also has an internal temperature sensor for convenient logging of ambient temperature if desired. The temperature sensor is mounted under a 0.6mm dome to give a relatively fast response time. Logging can be configured to: start on time, immediate start, stop when full, loop around (overwrite oldest data).



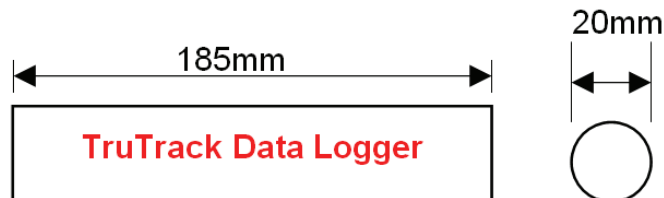
### Features:

- milliVolts and Temperature can be set to any combination of Point, Average, Maximum & Minimum readings.
- Low resolution mode is used to increase the number of samples.
- The battery voltage of the logger can be logged if required.
- The logger can be run in either “Stop when memory is Full”, “Loop Around” mode or set to stop at a future time.
- The logger can be started “Now” or started at a given time in the future.

**Ordering Information:**    **mV-HR**            Voltage data logger  
   **mV-HR Lead**    Test lead set

*Please Note:    The mV-HR data logger is not supplied with a test lead. These can be ordered separately from Intech Instruments Ltd if required.*

### mV-HR Dimensions:



### Putting into service (OmniLog Version 1.62 or greater):

1. From the SWDL-DLC OmniLog software and Download cable kit, **first install the OmniLog software**, then plug the Download cable into a spare USB or serial port on your PC (depending on which type you have). The OmniLog has an excellent “Help”. This will need to be read to enable successful operation of the OmniLog Data Management Program and gain familiarisation of the many advanced features available.
2. Connect the TruTrack Logger. Under healthy circumstances, a “Logger Control” screen will load. If the “Logger Control” screen does not load, click on the button labelled “Connect to a Logger for the first time”. The OmniLog will run a test on the serial ports and advise if the port the logger is connected to is not available, in which case, plug the logger into an available port. (Refer to “Help” for further assistance.)
3. On the “Logger Control” screen, click on “Channel and Probe Setup” button, and check the Battery Condition, plus other configurations if connecting to the pH-HR or mV-HR loggers.

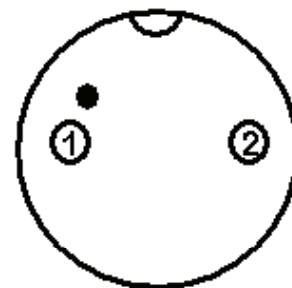
Now click on the “Start Logger” tab for the final configurations, before putting the logger into service.

**Product Liability.** This information describes our products. It does not constitute guaranteed properties and is not intended to affirm the suitability of a product for a particular application. Due to ongoing research and development, designs, specifications, and documentation are subject to change without notification. Regrettably, omissions and exceptions cannot be completely ruled out. No liability will be accepted for errors, omissions or amendments to this specification. Technical data are always specified by their average values and are based on Standard Calibration Units at 25C, unless otherwise specified. Each product is subject to the ‘Conditions of Sale’.

**Warning: These products are not designed for use in, and should not be used for patient connected applications. In any critical installation an independent fail-safe back-up system must always be implemented.**

**Specifications:**

mV Input:	External Sensor Connector	2 pin Switchcraft Plug (EN3C2M) Weatherproof; IP66
	Pinout	1 Positive 2 Negative
	Maximum readable input voltage	500mV
	Maximum voltage input without damaging logger	10 Volts
	Input Leakage Current	1nA
	See Note* below.	
mV Input Ranges	±50mV	Resolution 0.01mV
	±100mV	Resolution 0.01mV
	±200mV	Resolution 0.01mV
	±400mV	Resolution 0.01mV
	Accuracy	±0.1% of Full Scale
Internal Temperature:	Sensor Type	Thermister
	Linear accuracy over range	±0.3°C (0°C to 70°C)
	Repeatability	±0.1°C
	Long term stability	±0.1°C
Logger:	Working Temperature	-30°C to +70°C
	Storage Temperature	-30°C to +70°C
	Sampling Rate	1 second minimum, 10 hours maximum; in 1 second intervals
	Storage capacity	522,240 samples logging one channel 362 days with 1min logging interval 4.9 years with 5min logging interval 261,120 samples logging two channels 181 days with 1min logging interval 2.4 years with 5min logging interval
	Alarms	Two independent Alarms Triggered on any combination of six user configurable Alarm Conditions Both alarms can be configured to send SMS messages Alarms can be reset on user configurable Reset Conditions Alarms can be visually checked using the OmniLog Software
	Start modes	Start immediately / Start on date/time / Start on condition (e.g. temperature > 20°C)
	Stop modes	Stop when memory is full / Stop on date/time / Loop around (continues logging)
	Logging modes	Each channel can be set to log any combination of: - Point readings                      - Maximum reading - Average reading                      - Minimum reading
	Battery	One to Five year life depending on usage One TruTrack 7.2V lithium cell; User Replaceable The data is retained in the case of battery failure Battery Status Monitor in OmniLog software
	Download time	9 minutes 30 seconds for Full Logger
	Case material	304 Stainless tube
	Screw on end cap	Plated brass
	Weight	149g
	Size	20mm diameter X 185mm long



**A DLC3USB [USB] or DLC3 [RS232] download cable is required to connect the mV-HR to a computer.**

Note\*: If the logger is connected to a computer and either input is held at mains earth potential, erroneous results can be expected due to the earth loop current.