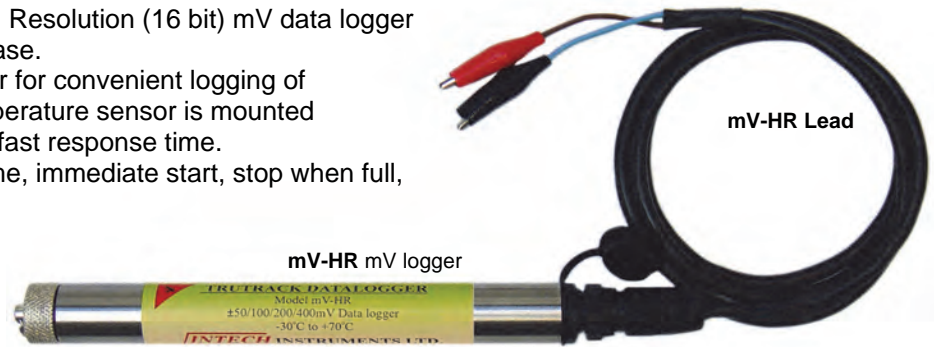


# TruTrack Data Logger

## milliVolt Logger Model mV-HR mark 4

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

The mV-HR is a small Two Channel High Resolution (16 bit) mV 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.

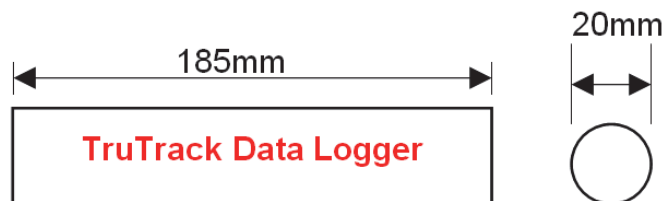
- millivoltage and Temperature can be set to any combination of Point, Average, Maximum & Minimum readings.
- The battery voltage of the logger can be logged if required.
- The logger can be run in either “Stop when memory is Full”, “Loop Around” mode or set to stop at a future time.
- The logger can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

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

**DLC3USB** [USB] or **DLC3** [RS232] download cable (2m) to connect mV-HR with computer.

*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 with Omni7 Data Management software.

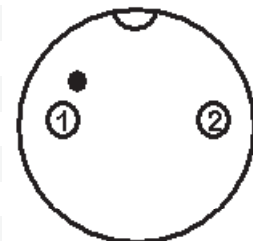
1. From the SWDL-DLC Omni7 software and Download cable kit, **first install the Omni7 software**, then plug the Download cable into a spare USB [standard size] or RS232 serial port on your computer (depending on which type you have). The Omni7 has an excellent “Help”. This will need to be read to enable successful operation of the Omni7 Data Management Program and gain familiarisation of the many advanced features available.
2. Connect the data logger to the download cable. Select the correct connection type on the Omni7 screen. Omni7 requires manual connection and disconnection to the data logger using the Green 'Connect' and Red 'Disconnect' buttons. It will not connect to a data logger automatically. (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.
4. 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
	Alarms	2.4 years with 5min logging interval
		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
	Start modes	Alarms can be visually checked using the Omni7 Software
		Start immediately / Start on date/time /
Stop modes	Start on condition (e.g. temperature > 20°C)	
	Stop when memory is full / Stop on date/time /	
Logging modes	Loop around (continues logging)	
	Each channel can be set to log any combination of:	
	- Point readings                      - Maximum reading - Average reading                      - Minimum reading	
	<b>Warning:</b> When using the Average, Maximum or Minimum reading(s), the logger reads the attached sensor(s) every second. <b>This will reduce battery life.</b>	
Battery	One to Five year life depending on usage as above	
	Using the logger in temperatures below -5°C (23°F) will reduce battery life	
	One TruTrack 7.2V lithium cell; User Replaceable	
	The data is retained in the case of battery failure	
Download time	Battery Status Monitor in Omni7 software	
	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 (2m) 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.

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