

# SL50 series

# Single Channel 'Button' Temperature Data Logger



**OUR LOWEST  
COST LOGGER**

The SL50 Series are self-contained single channel temperature data loggers with the ability to record over 8,000 data points. They operate in a temperature range of -40°C to +125°C

and can record temperature, or temperature and humidity, depending upon the model chosen. They are very small (about the same size as a watch battery) which enables them to be inserted into small items and packages.

The SL50R Button Reader™ interfaces to the RS232/USB port of a PC and is totally compatible with the TempIT operating software (see pages 2/3) which enables the logger to be set up and the data read and displayed in graphical format. Data can be stored and retrieved at a later time. The software can be up-graded to TempIT-Pro which provides various additional features such as Data table, e-mail graphs and automated MKT Calculations etc.

## Features

- Self-contained temperature logger
- Monitor from - 40°C to +125°C
- Water-resistant to 1 meter
- TempIT compliant

### Specification at 20°C

	SL51T	SL52/53T	SL54TH
Sensor (Internal Sensor)	Temperature -40 to +85°C	Temperature SL52 -40 to 85°C SL53 0 to +125°C	Temperature / RH Temp: -20 to 85°C RH: 0 to 100%
Sensor Accuracy	1°C from -30 to +70°C 1.3°C outside this band	SL52 0.5°C from -10 to +65 SL53 0.5°C from +20 to +75	0.5°C from -10 to +65 RH: ± 5%
Battery Life	10 years or 1M Temperature Measurements @ Ta<50°C	Depends upon sample rate and ambient temperature <sup>1</sup>	
Sampling Rates (User selectable)	1 to 255 minutes	1 sec to 24 hrs <sup>1 2</sup>	
Memory Size (Readings)	2,048	8,192 – Low Resolution Mode <sup>3</sup> 4,096 – High Resolution Mode <sup>3</sup>	
Resolution	8 bit – 0.5°C	8 or 11 Bit (0.0625°C) <sup>3</sup>	Temp: 8 or 11 bit RH: 8 or 12 bit
Size	17 mm diameter x 6 mm height.		
Case Material	305 stainless steel		
Weight	4 g		
Sealing	Water Resistant	Waterproof to 1 meter	N/A
Communication	RS232 Serial / USB		
Sampling Methods	Continuous (First-in./First-out) or Stop when full. <sup>2</sup>		
Alarms	High and Low		
Owner Manifest Data	Up to 36 Characters		
User Manifest Data	Up to 72 Characters		

<sup>1</sup> Sample rate affects battery life as does high temperature exposure See full data sheet.  
<sup>2</sup> 'Stop when full' is the only option for scan rates < 1 minute / sample.  
<sup>3</sup> Resolution is programmable 8 or 11 bits. More data can be stored in 8 bit mode and battery life is enhanced.

## SL50-ACC02

If there are any downsides to the SL50 series data loggers, it could be argued that for some applications they are just too small! For this type of application we provide the SL50-ACC02 rubberized holder. Any member of the SL50 family just clips into the bright yellow holder and is held securely. There is a mounting hole for fixing the holder in place as well as a strong magnet mounted on the back of the holder.

## SL50-CLIP

The SL50-CLIP is a small black, plastic key fob that will accept any of the SL50 series data loggers. Each logger just pushes into the clip and the mounting eye provides a convenient way of securing the clip. Operating temperature range 0°C to + 70°C

## SL50-WALL

A black plastic wall mounting bracket that allows any of the SL50 series data loggers to be permanently fixed to a wall, door or even a packing crate. The SL50 series loggers protrude through the enclosure which is in turn fixed using two screws.



## SL50-ACC01

316 stainless steel enclosures that protect the SL50 series data loggers in harsh environments or where there is likely to be pressures in excess of 100mB. The SL50-ACC01 can be used with pressures up to 10 Bar or submerged in up to 100m water.

## SL50-ACC05

Similar to the SL-ACC01, this enclosure has a hole machined into the front face. This allows liquids to come into direct contact with the measuring face of the data logger. This ensures maximum response time while still providing protection against water or fluid ingress.

## SL50-ACC03

A lower cost alternative to the SL-ACC01. The SL-ACC03 is constructed from Polyphenylene Sulphide (PPS Ryton) with black flat finish. This produces a lightweight enclosure that protects the data logger at pressures up to 1 Bar or depths of 10m. Maximum operating temperature +125°C.

## SL50-ACC06

The lowest cost waterproof enclosure for the SL50 series data loggers. The SL-ACC06 is constructed from neutral colored silicone. This produces a lightweight, two part enclosure that protects the data logger at pressures up to 0.5 Bar or depths of 5m. The maximum operating temperature is well in excess of the +125°C maximum operating temperature of the SL53T.



## SL50-ACC07

The SL50-ACC07 is an alarm viewer for all SL50 series data loggers. Just place the data logger in the socket and press the button. A green lamp will illuminate if the alarms have not been triggered and a red light will illuminate if they have.

