signatrol

SL61T, SL62T, SL63T, SL64TH
Temperature Data Logger Instruction Sheet

Signatrol Ltd
Unit E2, Green Lane Business Park
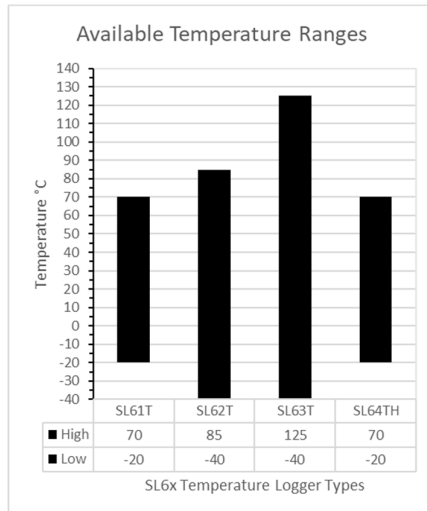Tewkesbury, Gloucestershire
GL20 8SJ, United Kingdom

Telephone: +44 (0)1684 299 399
Email: support@signatrol.com
Web: https://www.signatrol.com/

Warning: If using the USB interface, please install the TempIT software BEFORE connecting the USB interface to the computer.

Introduction

The dLog series button data loggers are designed to record temperature or temperature and humidity exposure accurately. They are ideal for monitoring sensitive goods in transit and process applications.

There are four versions of the button temperature logger. The SL61T is for more general-purpose applications where lower accuracy and resolution are acceptable. The remaining three types all have increased accuracy and resolution.

Available Temperature Ranges

	SL61T	SL62T	SL63T	SL64TH
■ High	70	85	125	70
■ Low	-20	-40	-40	-20

SL6x Temperature Logger Types

Software Requirements

TempIT5-PRO or TempIT5-LITE operating software.

The PC operating software TempIT5-Lite is free to download from our website. Alternatively, the button can be used with the TempIT-PRO package to provide greater functionality. Both versions provide a powerful yet easy-to-use graphing package and a platform to set up and issue the logger.

Communicating with the data loggers

The dLog series connects via the NFC Reader and cable to the computer's USB port. The data logger should be inserted into the hole on the NFC reader, etched face down. Launch the TempIT software. See the TempIT5 Quick Start Guide for more detailed information.

Operating Procedure.

The standard button operation is a two-stage procedure. The first stage involves the issue, whereby all the relevant operating parameters are downloaded to the button and recording is initiated. The second stage involves downloading the readings from the data logger to the PC via the reader and displaying them in the TempIT Software as a graph.

Issue

The relevant parameters, such as sample rate, alarm parameters, etc., are entered into the operating software. The issue logger button is then clicked which sends the configuration data to the button. More details can be found in the quick start guide.

WARNING: Issuing the logger erases all stored data in the data logger; please ensure any stored data is saved before issue.

Alarms

Two temperature alarms, one high and one low, are provided. The alarm set-point is entered before issuing. The alarms are 'armed' when the first reading is taken unless a delayed start function is selected. If the delayed start function is selected, the alarm will become immediately active when the future start date/time is reached.

Manifest

There are two manifest areas: owner and user. The owner manifest can only be entered once when the logger is issued for the first time. It remains within the logger for its entire life and cannot be modified. The owner manifest is normally used to record details of the owner and/or the date purchased.

The user manifest can take up to 60 characters of manifest data, which can be entered and stored within the logger and changed for every journey. Manifest data can be free typed at issue and may be used to record such things as the shipment number, the truck's licence number, the security tie serial number, the driver's name, etc.

Data Download

Readings are stored within the data logger and can be downloaded by clicking the Download Icon. The quick start guide's Help contains more details. Once downloaded, readings are immediately presented on the screen as a graph.

Alarms appear highlighted in red. The Readings are not saved at this point and if required data can be saved and printed using the appropriate icon from the panel on the left-hand side. It is recommended that data are always saved.

Mid-journey data can be saved, and at the end of the journey, any new data will be appended to the mid-journey data.

Previously Stored Data

The Open Graph window allows you to access previously stored data. Select the appropriate file by checking the checkbox on the left of the table. TempIT5-PRO users can select more than 1 graph file and overlay graphs on the same X-axis.

Operational Troubleshooting

No communication with the reader:
Check the correct port and device type have been selected in the software.
Ensure that no other loaded software is taking control of the port.

No communication with button:
Ensure the logger is placed in the hole on the front of the SL60-READER with the etched face down. If correctly inserted, the serial number should not be visible.

More details can be found in the TempIT5 Quick Start Guide.

Data logger dimensions:

11.5 mm
21.6 mm
22 mm
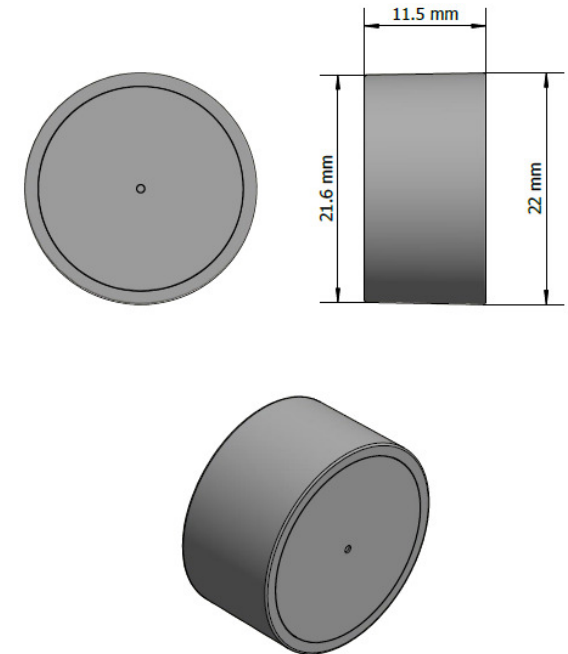
SL61T / SL61T-A Specifications

Temperature Range: -20°C to +70°C
Resolution: 0.2°C
IP Rating: IP30 – NO PROTECTION FROM MOISTURE, LIQUID, FLUID OR OIL INGRESS
Sample Rate: 1 minute to 24 hours (1 min steps)
Maximum Number of Readings: 2100
Start Types: Immediate & delayed.
Battery Life: 2 Years.

Accuracy		
Device Type	Range	Accuracy
SL61T	-20°C to +70°C	±0.5°C
SL61T-A	-20°C to +70°C	±0.25°C ± 0.1% Calibrated Span*

SL62T / SL62T-A Specifications

Temperature Range: -40°C to +85°C
Resolution: 0.02°C
IP Rating: IP68 – Fully submersible without the need for protective enclosures.
Sample Rate: 3 seconds to 24 Hours.
Maximum Number of Readings: 9500
Start Types: Immediate, delayed, level and delayed AND level.
Battery Life: 2 Years.

Accuracy		
Device Type	Range	Accuracy
SL62T	0°C to +50°C	±0.2°C
SL62T	-20°C to +85°C	±0.3°C
SL62T	-40°C to -20°C	±0.4°C
SL62T-A	See Calibration Certificate for Calibrated Span.	±0.1°C ±0.1% Calibrated Span*.

SL63T / SL63T-A Specifications

Temperature Range: -40°C to +125°C
Resolution: 0.02°C
IP Rating: IP68 – Fully submersible without the need for protective enclosures.
Sample Rate: 1 second to 24 Hours.
Maximum Number of Readings: 9500
Start Types: Immediate, delayed, level and delayed AND level.
Battery Life: 2 Years.

Accuracy		
Device Type	Range	Accuracy
SL63T	+0°C to +50°C	±0.2°C
SL63T	-20°C to +100°C	±0.3°C
SL63T	-40°C to +125°C	+0.4°C
SL63T-A	See Calibration Certificate for Calibrated Span.	±0.1°C ±0.1% Calibrated Span*.

SL64TH / SL64TH-A Specifications

Temperature Range: -20°C to +70°C
Humidity Range: 0 to 100% (Non-Condensing)
IP Rating: IP30 – NO PROTECTION FROM MOISTURE, LIQUID, FLUID OR OIL INGRESS
Temperature Resolution: 0.02°C
Humidity Resolution: 0.05% RH
Sample Rate: 3 seconds to 24 Hours.
Maximum Number of Readings: 9500
Start Types: Immediate, delayed, level and delayed AND level.
Battery Life: 2 Years.

Accuracy		
Device Type	Range	Accuracy
SL64TH	0°C to +50°C 10% to 90% RH	±0.2°C ±3.5% RH
SL64TH	-20°C to +70°C 0% to 100% RH	±0.3°C ±5% RH
SL64TH-A (Temperature)	See Calibration Certificate for Calibrated Span.	±0.1°C ±0.1% Calibrated Span*.
SL64TH-A (Relative Humidity)	10% to 80% 0% to 100%	±2.0% RH ±3.5% RH

*   The calibrated span can be over the whole operating range of the data logger, but the extremes should be avoided. For example, if the SL63T-A is to be calibrated over the whole operating range, the calibration points should be
-39°C, +45°C and +124°C. You may choose any three calibration points that may be more suitable for your application. The minimum calibrated span, the difference between the highest and lowest calibration point, is 20°C.

Common Specification (to all device types)

Manifest Text: 64 Characters
Calibration Interval: 12 months recommended
Warranty: 1 Year
Dimensions: 22mm Diameter x 11.5mm Height
Weight: SL61T & SL64TH – 5.7 grams approx.
          SL62T & SL63T – 6.5 grams approx.
Battery: BR1632A non-replaceable and non-rechargeable.

Case Material:
SL61T & SL64TH: Nylon 66 + 33% Glass Fibre
SL62T & SL63T: Zytel® FGFE5171 food-safe construction.

⚠️ **WARNING! This product contains a Lithium battery. Permanent damage will occur if the data loggers are exposed to temperatures in excess of +125°C / 257°F. There is a risk of EXPLOSION if the temperature exceeds +150°C / 302°F**

The specification is subject to change without notice.

This Apparatus conforms to: The protection requirements of Council Directive 89/336/EEC on the approximation of the laws of Member States relating to electromagnetic compatibility {Article 10 (1)}, as amended by Council Directives 92/31/EEC, 93/68/EEC and changes.
STANDARD:- BS EN 61326;1998 IEC 61326:1997 Electrical Equipment for measurement, control and laboratory use EMC requirements. IMMUNITY ANNEX A (Industrial Locations) EMISSIONS CLASS B

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