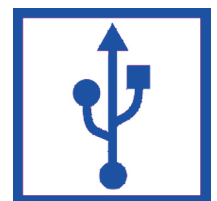
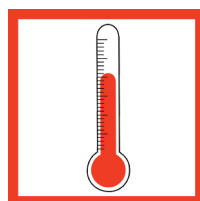


SL50 Series

Miniature Temperature & RH Data Loggers



- -40°C to +125°C Measuring Range
- High Accuracy Option
- Up to 10 Years Battery Life @ 20°C
- Temperature & Relative Humidity Versions
- Up to 8,000 Readings



SL50 Series

Miniature Temperature & Relative Humidity Data Loggers

The SL50 series of miniature data loggers comprises of four data loggers:

The SL51T measures temperature from -40°C to +85°C with an accuracy of $\pm 1.0^{\circ}\text{C}$.

The SL52T operates over the same temperature range of the SL51T, -40°C to +85°C but has an improved accuracy of $\pm 0.5^{\circ}\text{C}$.

The SL53T operates over the range 0 to +125°C with an accuracy of $\pm 0.5^{\circ}\text{C}$.

The SL54TH measures temperature over the range -40°C to +85°C and also measures relative humidity from 0 to 100%.

SL55T-A measures from +15°C to +140°C with an accuracy of $\pm 0.5^{\circ}\text{C}$ from +80°C to +140°C.

All models are also available supplied complete with UKAS traceable calibration certificates. These models are identified with the -A suffix and in the case of the SL53T-A and the SL54TH-A, are calibrated to give an improved accuracy over the “standard” version.



All members of the SL50 series are fully compatible with our TempIT software which is available as a free download from the Signatrol website.

The SL50 series data loggers connect to the computer using the USB interface (sold separately).

There are also a range of accessories available to assist with mounting or protection.

Specifications - SL51T / SL51T-A

Power	Internal Battery
Battery Life	Typically 10 years at 20°C. Detailed battery life calculator is available on the Signatrol website
Temperature Range	-40°C to +85°C -40°F to +185°F
Accuracy	$\pm 1.0^{\circ}\text{C}$ from -30°C to +70°C $\pm 1.3^{\circ}\text{C}$ Outside of this range.
Resolution	0.5°C
Number of Readings	2048
IP Rating	IP55 'Protected against ingress of dust and protected against low-pressure jets of water' Protective enclosures are available.
Sample Rate	1 minute to 255 minutes
Delayed Start	Yes, up to 45 days, 1 minute resolution
Software Alarms	Yes
Material	305 Stainless Steel
Warranty	1 Year
Dimensions	17mm (Diameter) x 6mm (High)
Certifications	FDA 21 CFR Part 11 EN12830 Meets UL#913 (4th Edit.); Intrinsically Safe Apparatus, approval under Entity Concept for use in Class I, Division 1, Group A, B, C, and D Locations Ex ia IIC T4 (-40°C to +80°C)



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Specifications - SL52T / SL52T-A

Power	Internal Battery
Battery Life	Typically 5 years at 30°C. Detailed battery life calculator is available on the Signatrol website
Temperature Range	-40°C to +85°C -40°F to +185°F
Accuracy	SL52T: $\pm 0.5^{\circ}\text{C}$ from -10°C to $+65^{\circ}\text{C}$ $\pm 1.0^{\circ}\text{C}$ Outside of this range. SL52T-A: $\pm 0.1^{\circ}\text{C} \pm 0.1\%$ of calibrated span. Default calibration points -20°C , $+4^{\circ}\text{C}$ & $+25^{\circ}\text{C}$ Other calibration points available upon request
Resolution	Low res mode (0.5°C) Hi res mode (0.07°C)
Number of Readings	8192 low res mode 4096 high res mode
IP Rating	IP55 Protective enclosures are available.
Sample Rate	2 seconds to 24 hours 2 seconds to 1 minute in 5 second steps 1 minute to 1 hour in 1 minute steps 1 hour to 24 hours in 1 hour steps
Delayed Start	Yes, Up to 1 Year 1 minute resolution
Software Alarms	Yes
Material	305 Stainless Steel
Warranty	1 Year
Dimensions	17mm (Diameter) x 6mm (High)
Certifications	See SL51T / SL51T-A

Specifications - SL53T / SL53T-A

Power	Internal Battery
Battery Life	Typically 1 year at 80°C. Detailed battery life calculator is available on the Signatrol website
Temperature Range	0°C to +125°C 32°F to +257°F
Accuracy	SL53T: $\pm 0.5^{\circ}\text{C}$ from $+20^{\circ}\text{C}$ to $+75^{\circ}\text{C}$ $\pm 1.0^{\circ}\text{C}$ from 0°C to $+20^{\circ}\text{C}$ and $+75^{\circ}\text{C}$ to $+115^{\circ}\text{C}$ $\pm 1.5^{\circ}\text{C}$ from $+115^{\circ}\text{C}$ to $+125^{\circ}\text{C}$ SL53T-A: $\pm 0.1^{\circ}\text{C} \pm 0.1\%$ of calibrated span Default calibration points $+80^{\circ}\text{C}$, $+100^{\circ}\text{C}$ & $+120^{\circ}\text{C}$ Other calibration points available upon request
Resolution	Low res mode (0.5°C) Hi res mode (0.07°C)
Number of Readings	8192 low res mode 4096 high res mode
IP Rating	IP55
Sample Rate	2 seconds to 24 hours 2 seconds to 1 minute in 5 second steps 1 minute to 1 hour in 1 minute steps 1 hour to 24 hours in 1 hour steps
Delayed Start	Yes, Up to 1 Year 1 minute resolution
Software Alarms	Yes
Material	305 Stainless Steel
Warranty	1 Year
Dimensions	17mm (Diameter) x 6mm (High)
Certifications	See SL51T / SL51T-A

+ Hi Res Mode Only. Accuracy with respect to UKAS certified sensor.
Measurement uncertainty $\pm 0.1^{\circ}\text{C}$



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Specifications SL54TH / SL54TH-A

Power	Internal Battery
Battery Life	Typically 5 years at 10 minute sample rate.
Temperature Range	-20°C to +85°C - Operating -4°F to +185°F
Temperature Accuracy	SL54TH: ±0.5°C from -10°C to +70°C SL54TH-A: ±0.1°C ±0.1% of calibrated span. Default calibration points 0°C, +25°C & +50°C Other calibration points available upon request
Temperature Resolution	Low res mode (0.5°C) Hi res mode (0.07°C)
Relative Humidity Accuracy	SL54TH: ±5%RH SL54TH-A: ±2%RH
Relative Humidity Resolution	Low res mode: 0.64%RH High res mode: 0.04%RH
Number of Readings	8192 low res mode 4096 high res mode
Response Time	Response times in moving air. 63% time constant Temperature: 1 Min 29 Seconds Relative Humidity: 3 Min 44 Seconds 10-90 % time constant Temperature: 2 Min 50 Seconds Relative Humidity: 9 Min 54 Seconds
Sample Rate	2 seconds to 23 hours
Delayed Start	Yes, Up to 1 Year 1 minute resolution
Software Alarms	Yes
Material	305 Stainless Steel
Warranty	1 Year
Dimensions	17mm (Diameter) x 6mm (High)
Certifications	See SL51T / SL51T-A

Specifications SL55T-A

Power	Internal Battery
Battery Life	Typically 150 hours accumulative or 150 cycles in excess of +85°C.
Temperature Range	+15°C to +140°C +59°F to +284°F
Temperature Accuracy	±0.2°C from +80°C to +140°C ±1.0°C from +15°C to +80°C
Temperature Resolution	Low res mode (0.5°C) Hi res mode (0.07°C)
Number of Readings	8192 low res mode 4096 high res mode
Response Time (In Circulating Air)	63% step change: 90 seconds 10% to 90% step change: 180 seconds
Sample Rate	1 second to 24 hours 1 second to 1 minute in 5 second steps 1 minute to 1 hour in 1 minute steps 1 hour to 24 hours in 1 hour steps
Delayed Start	Yes, Up to 1 Year 1 minute resolution
Software Alarms	Yes
Material	305 Stainless Steel
Warranty	1 Year
Dimensions	17mm (Diameter) x 6mm (High)
Certifications	See SL51T / SL51T-A

+ Hi Res Mode Only. Accuracy with respect to UKAS certified sensor.
Measurement uncertainty ±0.1°C



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Order Codes

Part Number	Description
SL51T	Temperature Data Logger -40°C to +85°C
SL51T-A	Temperature Data Logger supplied with 3 point UKAS traceable calibration certificate
SL52T	Temperature Data Logger -40°C to +85°C
SL52T-A	Temperature Data Logger supplied with 3 point UKAS traceable calibration certificate
SL53T	Temperature Data Logger 0°C to +125°C
SL53T-A	Temperature Data Logger supplied with 3 point UKAS traceable calibration certificate
SL54TH	Temperature and relative Humidity Data Logger
SL54TH-A	Temperature And Relative Humidity Data Logger supplied with 3 point UKAS traceable calibration certificate
SL55T-A	+15°C to +140°C Temperature Data Logger supplied with 3 point UKAS traceable calibration certificate
SL50-ACC-01	Stainless Steel protective enclosure
SL50-ACC-02	Rubberised, Magnetic Holder
SL50-ACC-03	Plastic Protective Enclosure
SL50-ACC06-PK5	Pack of five silicone enclosures (Sinking)
SL50-ACC06-PK10	Pack of 10 silicone enclosures (Sinking)
SL50-ACC08-PK5	Pack of five silicone enclosures (Floating)
SL50-ACC08-PK10	Pack of 10 silicone enclosures (Floating)
SL50-INTER-FACE-USB	USB Interface Lead
SL50-ACC-10	Fast Response Enclosure
SL50-CLIP	Key-fob type clip (Pack of 5)
SL50-WALL	Wall / Pallet Mount (Pack of 5)

Part Number	Description
TEMPIT-LITE	FREE Software Download from the Signatrol website
TEMPIT-PRO-4	Enhanced Software
TEMPIT-PRO-4-DONGLE	USB Key version that activates the PRO functions when the key is present in the USB slot.
TEMPIT-MULTI-10	10 individual TEMPIT-PRO licences.

There are also a range of cost effective starter kits available containing either two or five data loggers, the TempIT-Pro software and a USB interface lead. Please see the website or contact the sales office for more details.

Every effort has been taken to ensure the accuracy of this specification, however we do not accept responsibility for damage, injury, loss or expense resulting from errors and omissions, and we reserve the right of amendment without notice.

