



SL500 Series

Data Loggers with LCD Real Time Display

The SL500 series of temperature and temperature/humidity data loggers are simple to use, versatile test instruments which can be used in a multitude of applications. Each data logger includes Windows® based software, operator's manual on CD and 3' USB interface cable and battery. Flexible sample rates range from one second to 9 hours.

Windows® based software is easy to set up and use. All functions include sample rate, logging duration, start mode, logging mode and visual high/low temperature alarms. Once logging is complete the data can be downloaded from the logger, plotted & exported to an Excel or text file format for analysis.

Standard Data Logger Features

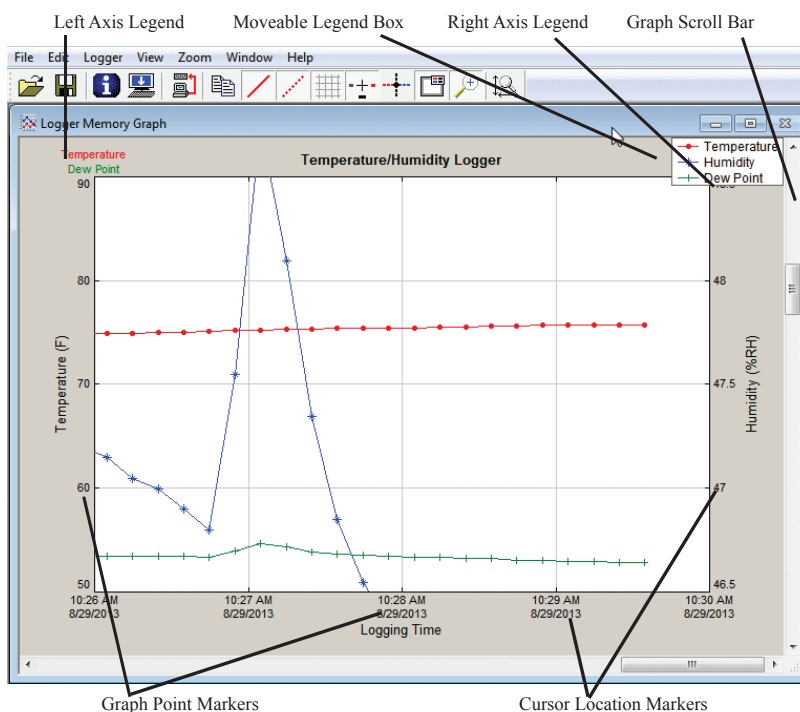
- LCD real time display of temperature (°F or °C), relative humidity (SL500TH only), time, date, alarm status, logging status and battery life
- User selectable stop on memory full or memory rollover for continuous logging
- Delayed start or push button logging control
- Read data on Logger Display
- Displays alarm icon for high/low alarm status
- Non-volatile EEPROM memory retains data even if battery fails
- USB interface for fast data transfer
- Compact, light-weight, simple to use
- 1-year warranty
- Optional NIST (National Institute of Standards & Technology) calibration available



SL500XT

Working the Data Graph

Clicking anywhere within the graph window activates the graph toolbar buttons and the graph window features.



SL500TH



SL500TC



SL500T

SUPCO PART NO.	DESCRIPTION
SL500T	Temperature Data Logger
SL500TH	Temperature & Humidity Data Logger
SL500XT	External Probe Temperature Data Logger
SL500TC	Thermocouple Temperature Data Logger

SL500T / SL500XT / SL500TH Specifications

Sample Point Capacity:	43,344 temperature points for the SL500T and SL500XT. 21,672 each temperature and humidity points for the SL500TH.
Display:	Current reading and time, logging status, alarm status, recorded sample history, battery level. SL500TH alternates the display between temperature and humidity every two seconds.
Alarms:	Visual over and under alarm indicator for temperature and /or humidity.
Calibration:	User single point offset calibration is available through software. Calibration is password protected.
Operating Temperature:	-5°F to 160°F (-20°C to 70°C)
External Probe Temperature Measurement Range (SL500XT):	-40°F to 176°F (-40°C to 80°C)
External Probe Length (SL500XT):	6' (1.8m)
Storage Temperature Range:	-20°F to 175°F (-30°C to 80°C)
Time Accuracy:	+/- 100 ppm @ 75°F (24°C)
Temperature Accuracy:	+/- 0.9°F (0.5°C) for the range 0°F to 120°F (-17°C to 50°C)
Temperature Resolution (PC Software):	0.05°F (0.03°C)
Relative Humidity Accuracy (SL500TH):	+/- 2% RH for the range of 10% RH to 90% RH
Relative Humidity Resolution (SL500TH):	0.05% RH
Dimensions:	2.15" x 2.25" x 0.55" (5.5cm x 5.57cm x 1.4cm)
Power Source:	3V CR2032 Lithium (Included)
Battery Life:	3-years average use

Applications

- Coolers
- Freezers
- Greenhouses
- Museums
- Shipping Containers
- Computer Rooms
- Warehouses
- Environmental Monitoring
- Food Storage
- Kennels
- Laboratory

Replacement Parts

- SL500TC type K temperature probe: P/N 14781
- SL500T/SL500TH/SL500XT battery (CR2032): P/N 12782

Tech Tips

- Always install the software to the PC before connecting the data logger to the PC.
- Download the most current data logger software.
- These data loggers and temperature sensors cannot be submerged in any type of liquid.
- User guide & specifications are included in the data logger software.



SL500TC Specifications

Sample Point Capacity:	32,638 temperature points.
Includes:	Type K insulated beaded wire thermocouple 40" (1m).
Other Supported Thermocouples:	J, E, N, T, S, R, B, C
Display:	Current reading and time, logging status, alarm status, recorded sample history, battery level, thermocouple type. Displays temperature up to 1999°F or 1999°C.
Alarms:	Visual over and under temperature alarms.
Display Temperature Resolution:	0.2°F (0.1°C) up to 199.9°F or °C. 1°F or 1°C above 200°F or 200°C
Logged Temperature Resolution:	0.2°F (0.1°C)
Thermocouple Impedance:	50 Ohms maximum for specified accuracy
Cold Junction Temperature Accuracy:	+/- 0.5°F (0.3°C)
Calibration:	User single point offset calibration is available through software. Calibration is password protected.
Operating Temperature:	0°F to 131°F (-18°C to 55°C)
Storage Temperature:	-20°F to 175°F (-30°C to 80°C)
Time Accuracy:	+/- 100 ppm @ 75°F (24°C)
Dimensions:	2.15" x 2.25" x 1.2" (5.5cm x 5.7cm x 3.0cm)
Power Source:	3-AAA batteries (Alkaline or Lithium recommended), included.
Battery Life:	2-years average use

SL500TC Temperature Range

THERMOCOUPLE	ACCURACY	SL500TC TEMPERATURE RANGE
K	+/- 1.3°F (0.7°C)	-418 to 2372°F (-250 to 1300°C)
J	+/- 1.0°F (0.6°C)	-274 to 1832°F (-170 to 1000°C)
E	+/- 0.8°F (0.4°C)	-328 to 1508°F (-200 to 820°C)
N	+/- 1.5°F (0.8°C)	-328 to 2372°F (-200 to 1300°C)
T	+/- 1.3°F (0.7°C)	-328 to 752°F (-200 to 400°C)
S	+/- 5.0°F (2.8°C)	-58 to 3200°F (-50 to 1760°C)
R	+/- 5.0°F (2.8°C)	-58 to 3200°F (-50 to 1760°C)
B	+/- 6.0°F (3.3°C)	68 to 3308°F (20 to 1820°C)
C	+/- 3.0°F (1.7°C)	32 to 4208°F (0 to 2320°C)

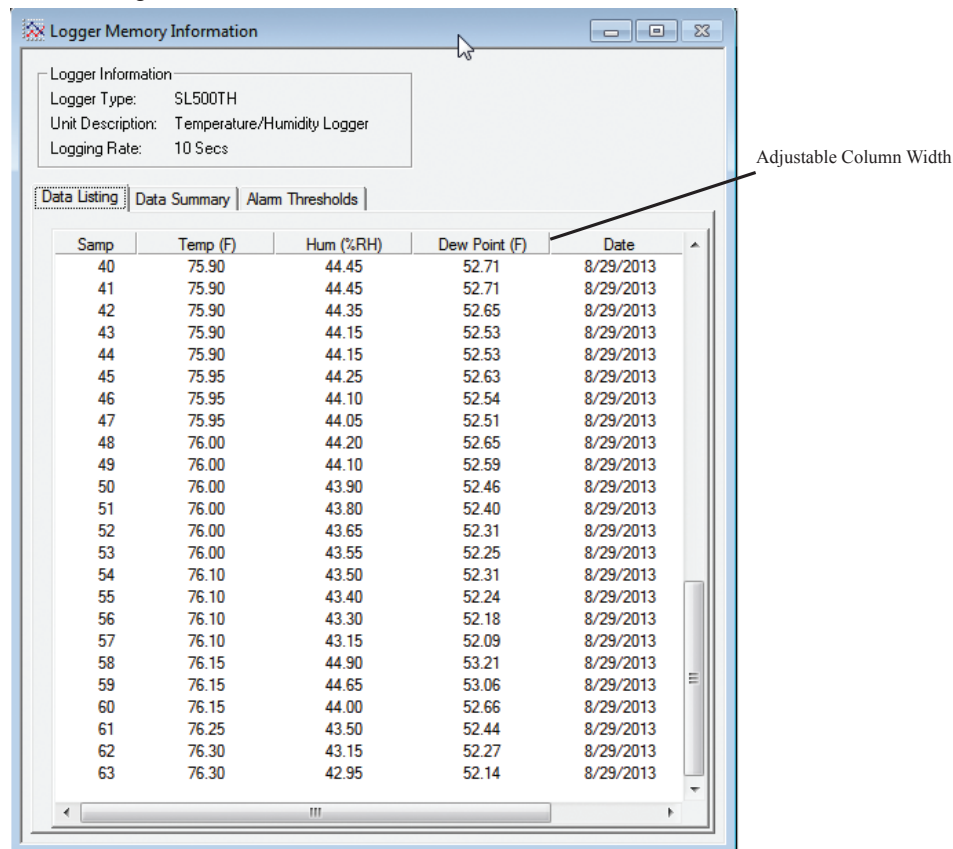
The accuracy stated is for the SL500TC only. Inaccurate readings increase based on the thermocouple wire grade being used. The logger supported range is for stored temperature.

Software Features

- Selectable language (English/French/Spanish)
- Software compatibility: Windows® XP / VISTA / 7 / 8
- Minimum system requirements: 800 x 600 resolution, 1 free USB port
- Complete data summary to read statistics and alarm information in a simplified format
- Tabular view of data including detailed dates, times and values of recorded data
- Graph function displays data in graphical format
- Cursor displays exact data of any point in the graphical display
- Magnify data with powerful zoom and auto scale functions
- Auto scale function fits data to screen or allows user to manually enter their own values
- Export data in Excel or text format
- Print graph or text data with print preview and set up options
- Set up and launch data loggers with immediate or delayed start, preferred sample rate, alarm set up and custom ID up to 30 characters
- Password protected calibration function. A calibration window is included in the software to simplify the calibration procedure
- Convenient status displays ID of logger, battery life, memory used, sample rate, duration, alarm condition and logging status
- Menu Bar provides one click access to most software functions

Data Listing Window

The data listing window is shown below.



Logger Memory Information

Logger Information

Logger Type: SL500TH
Unit Description: Temperature/Humidity Logger
Logging Rate: 10 Secs

Data Listing | Data Summary | Alarm Thresholds

Samp	Temp (F)	Hum (%RH)	Dew Point (F)	Date
40	75.90	44.45	52.71	8/29/2013
41	75.90	44.45	52.71	8/29/2013
42	75.90	44.35	52.65	8/29/2013
43	75.90	44.15	52.53	8/29/2013
44	75.90	44.15	52.53	8/29/2013
45	75.95	44.25	52.63	8/29/2013
46	75.95	44.10	52.54	8/29/2013
47	75.95	44.05	52.51	8/29/2013
48	76.00	44.20	52.65	8/29/2013
49	76.00	44.10	52.59	8/29/2013
50	76.00	43.90	52.46	8/29/2013
51	76.00	43.80	52.40	8/29/2013
52	76.00	43.65	52.31	8/29/2013
53	76.00	43.55	52.25	8/29/2013
54	76.10	43.50	52.31	8/29/2013
55	76.10	43.40	52.24	8/29/2013
56	76.10	43.30	52.18	8/29/2013
57	76.10	43.15	52.09	8/29/2013
58	76.15	44.90	53.21	8/29/2013
59	76.15	44.65	53.06	8/29/2013
60	76.15	44.00	52.66	8/29/2013
61	76.25	43.50	52.44	8/29/2013
62	76.30	43.15	52.27	8/29/2013
63	76.30	42.95	52.14	8/29/2013

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