



## Site-Log LRHT-1 / LRHT-2 Data Logger

### Product Specifications



#### OVERVIEW

The Site-Log LPTH-1 (internal sensor) /LRHT-2 (external sensor) is an 2-channel, battery powered, stand alone data logger. The logger records up to 4 mega-byte of relative humidity, temperature data and stores it in non-volatile flash memory for later retrieval.

Featuring an aluminum enclosure and conformal coating PCB, the Site-Log data logger has excellent performance in the harshest industrial environment.

Powered by Sensirion high performance digital temperature and RH sensor, the LRHT-1/LRHT-2 logger is well suited to science and laboratory applications where precise and accurate measurement is critical.

#### FEATURES

##### **High Data Resolution:**

The 16-bit analog-to-digital converter meets most high-resolution requirements.

##### **Large Memory Size:**

The 4-Mega-Byte Memory stores years of measurements.

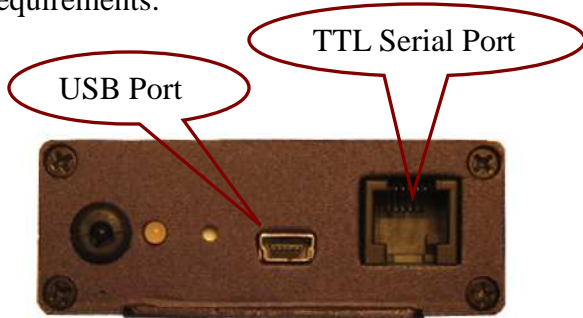
##### **Programmable Input Ranges:**

One on-board thermistor channel monitors ambient temperature. Seven range-programmable voltage external input channels cover wide measurement requirements.

##### **Multiple Communication Interfaces:**

The Site-Log data loggers can be accessed via USB, MODEM, or Ethernet connections with auto baud rate of up to 115 kbps.

Its on-board TTL serial port and USB interfaces meet most communication requirements.



**10-Year Battery Life:**

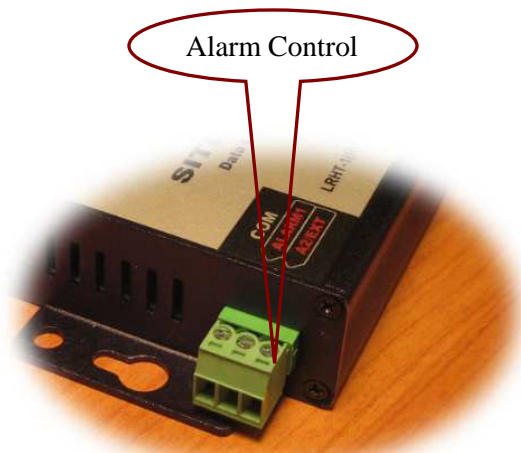
The internal lithium battery provides over 10 years of instantaneous logging operation when sampling at an interval of one minute.

**Fast Sampling Mode:**

The Site-Log data loggers can log data with the sampling interval as fast as 20 milliseconds, replacing data acquisition devices.

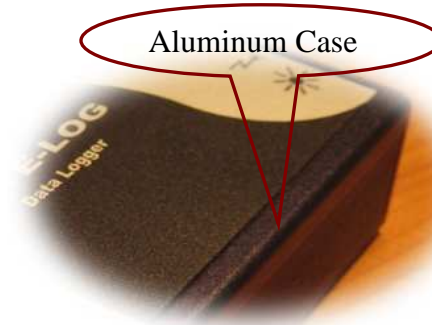
**Alarm Control Output:**

The LRHT-1/LRHT-2 data logger notifies the alarm condition over alarm terminal strips or communication lines. (USB, Serial Port, MODEM)



**Rugged Physical Design:**

The rugged aluminum enclosure and coated PCB makes the Site-Log data loggers perfect in the harshest industrial environment.

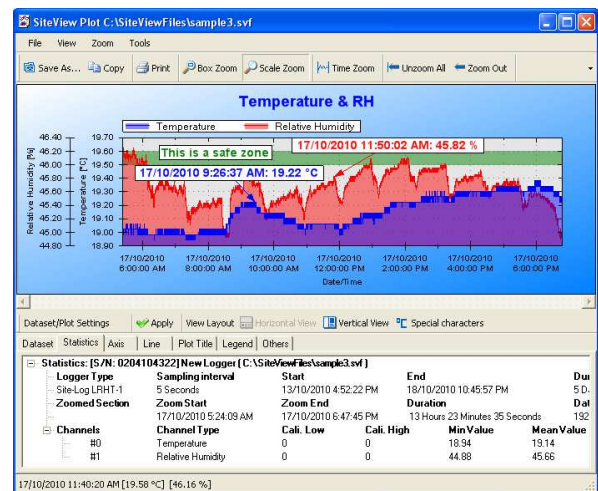


**Powerful Software:**

SiteView is a Windows-based application which works with the Site-Log Series data loggers for downloading, configuration, data analyzing and plotting.

Its user-friendly graphic interface plus powerful functionalities fit both novice and advanced users.

The versatility of custom equation and custom-line equation handle complicated measurement requirements.



## SPECIFICATIONS

| <b>Product Identification</b> |   |
|-------------------------------|---|
| Product Name                  | Site-Log  |
| Model                         | LRHT-1 (internal sensor), LRHT-2 (external sensor)  |
| <b>Inputs</b>                 |   |
| Connections                   | Pluggable terminal block for alarm1 and alarm2 controls.  |
| Channels                      | CH0: Temperature(-40°C ~ 70°C, -40°F ~ 158°F)<br>CH1: Relative Humidity(0 ~ 100% RH)  |
| Resolution                    | 0.025%  |
| Accuracy                      | Temperature: +/- 0.4°C at 25°C<br>Relative Humidity: +/-3% (20% ~ 80% RH)   |
| <b>Alarms</b>                 |   |
| Channel Alarms                | Two editable alarm thresholds per channel.  |
| Alarm Outputs                 | ALARM1 & A2/EXT terminal strips can be configured as alarm outputs.<br>Alarm-On: MOSFET(N-Channel) switch on.<br>Alarm-Off: MOSFET(N-Channel) switch off.<br>Max Power: 200mA @ 24VDC.<br>With purchase of SiteView software, the Site-Log can report alarm status to host PC via USB, Modem or Ethernet Device Server. |
| Alarm-On Delay:               | Programmable 0 - 10 minutes delay with 1-minute increments.   |
| Alarm Indicator               | On-board LED lights in red when in alarm condition.   |
| <b>On-board Memory</b>        |   |
| Capacity                      | 4 Mega bytes (2 Mega measurements).   |
| Data Retention                | Over 20 years.  |
| <b>Sampling &amp; Logging</b> |   |
| Sampling Interval             | 1 second to 12 hours user selectable.   |
| Logging Mode                  | Stop recording or FIFO when memory is full.   |
| Logging Activation            | Programmable instant, start delay or field push-button activation.  |
| <b>Communications</b>         |   |
| Interface                     | USB(USB cable included).<br>AUX(RJ11) for direct TTL level communications.<br>With purchase of DeviceServer Kit, the Site-Log logger can be connected to Ethernet for remote access.  |
| Baud Rate                     | Auto-detect baud rate from 2400 to 115200 bps on both USB and AUX ports.  |
| <b>Battery</b>                |   |
| Power                         | Built-in 3.6V Lithium Battery.  |
| Life Cycle                    | 5 years based on 1 minute sampling interval.  |

|                         |  |
|-------------------------|--|
| <b>Software</b>         |  |
| SiteView <sup>[1]</sup> | Configuration, downloading, plotting, real-time view, custom calibration and custom equation.  |
| Software Requirements   | Computer with 1.0 GHz or faster processor<br>256 MB Memory or higher<br>1.0 GB of available hard-drive space or higher<br>Windows XP with SP2 or later, Vista, Window 7<br>At least one USB port or one COM port |
| <b>Physical</b>         |  |
| Material                | Aluminum enclosure.  |
| PCB Treatment           | Conformal coating.   |
| Dimension               | 88 X 64.2 X 24 mm (3.46 X 2.53 X 0.95 inches)  |
| Weight                  | 150g.  |
| Mounting                | Probe/Wall-mount holes for hanging/mounting.   |
| <b>Others</b>           |  |
| LED Indicator           | Tri-Color LED: (can be disabled for power saving)<br>Normal Sampling: green when sampling<br>Alarm: red when sampling<br>Low Battery: amber when sampling.   |
| Operating Environment   | -40 ~ +70°C (-40°F ~ 158°F), 0~95%RH non-condensing.   |
| Clock Accuracy          | +/- 1 minute per month.  |
| Approvals               | CE, FCC  |

[1]: Sold separately.

## LOGGING CAPACITY TABLE

| Sampling Interval | Enabled Channel | Logging Capacity | Sampling Interval | Enabled Channel | Logging Capacity |
|-------------------|-----------------|------------------|-------------------|-----------------|------------------|
| 1 minute          | 1               | 3.98 years       | 1 second          | 1               | 24 days          |
| 1 minute          | 2               | 727 days         | 1 second          | 2               | 12 days          |
| 1 minute          | 8               | 181 days         | 1 second          | 8               | 3 days           |
| 10 seconds        | 1               | 242 days         | 100 ms            | 1               | 58 hours         |
| 10 seconds        | 2               | 121 days         | 100 ms            | 2               | 29 hours         |
| 10 seconds        | 8               | 30 days          | 100 ms            | 8               | 7.2 hours        |