

Product Datasheet - Technical Specifications



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Site-Log LPTH-1 Data Logger

Product Specifications



OVERVIEW

The Site-Log LPTH-1 is an 8-channel, battery powered, stand alone thermistor data logger. The logger records up to 4 mega-byte of data and stores it in non-volatile flash memory for later retrieval. It accepts nearly any kind of thermsitors that have the resistance value above 1K at 25°C.

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

Powered by a16-bit ADC and programmable input range, the Site-Log data loggers are 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.

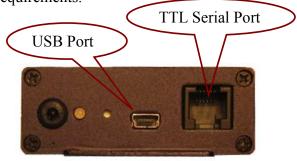
Programmable Input Ranges:

One on-board thermistor channel monitors ambient temperature. Seven rangeprogrammable 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.

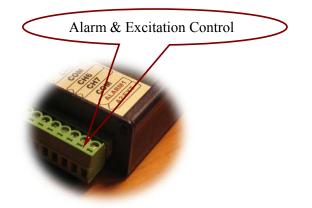
Fast Sampling Mode:

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

Alarm and Excitation Output:

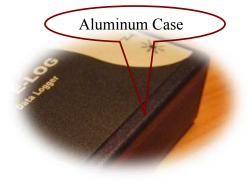
The Site-Log data logger notifies the alarm condition over alarm terminal strips or communication lines. (USB, Serial Port, MODEM)

Excitation control turns on the power of external transmitter/transducer only when the logger is sampling.



Rugged Physical Design:

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

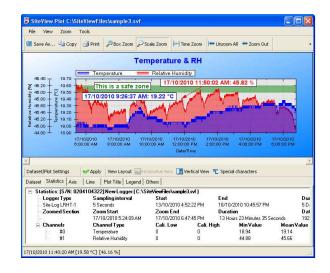


Powerful Software:

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

Product Identification				
Product Name	Site-Log			
Model	LPTH-1			
Inputs				
Connections	Pluggable terminal block for seven external channels, excitation			
	controls and alarm outputs.			
Channels	One on-board thermistor temperature (-40°C \sim 70°C, -40°F \sim			
	158°F).			
	Seven external thermistor channels.			
Resolution	0.0018%			
Accuracy	Thermistor channel: $+/- 0.2^{\circ}C(0^{\circ}C \sim 70^{\circ}C, 32^{\circ}F \sim 158^{\circ}F)$			
	Thermistor channels:			
	+/- 0.2% FSR @ 25°C			
Alarms				
Channel Alarms	Two editable alarm thresholds per channel.			
Alarm Outputs	ALARM1 & A2/EXT terminal strips can be configured as alarm			
	outputs.			
	Alarm-On: MOSFET(N-Channel) switch on.			
	Alarm-Off: MOSFET(N-Channel) switch off.			
	Max Power: 200mA @ 24VDC.			
	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.			
On-board Memory				
Capacity	4 Mega bytes (2 Mega measurements).			
Data Retention	Over 20 years.			
Sampling & Logging				
Sampling Interval	20 milliseconds ^[1] 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.			
Communications				
Interface	USB(USB cable included).			
	AUX(RJ11) for direct TTL level communications.			
	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.			
Battery				
Power	Built-in 3.6V Lithium Battery.			
Life Cycle	10 years based on 1 minute sampling interval.			

Software			
SiteView ^[2]	Configuration, downloading, plotting, real-time view, custom		
	calibration and custom equation.		
Software Requirements	Computer with 1.0 GHz or faster processor		
	256 MB Memory or higher		
	1.0 GB of available hard-drive space or higher		
	Windows XP with SP2 or later, Vista, Window 7		
	At least one USB port or one COM port		
Physical			
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	200g.		
Mounting	Probe/Wall-mount holes for hanging/mounting.		
Others			
LED Indicator	Tri-Color LED: (can be disabled for power saving)		
	Normal Sampling: green when sampling		
	Alarm: red when sampling		
	Low Battery: amber when sampling.		
Excitation Control	A2/EXT terminal strip can be configured as excitation control		
	output for driving the power of connected devices.		
	Warm-up delay Interval settings: 10 to 240 seconds with 10-		
	second increments.		
Operating Environment	$-40 \sim +70^{\circ}$ C (-40° F $\sim 158^{\circ}$ F), $0 \sim 95\%$ RH non-condensing.		
Clock Accuracy	+/- 1 minute per month.		
Approvals	CE, FCC		

[1]: Maximum enabled channel: 1 for 20ms interval, 2 for 30ms, 8 for 40ms or bigger interval.[2]: Sold separately.

LOGGING CAPACITY TABLE

Sampling	Enabled	Logging	Sampling	Enabled	Logging
Interval	Channel	Capacity	Interval	Channel	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