Microedge Instruments Inc.

404 – 1688 152nd Street
Surrey, BC
Canada V4A 4N2
Phone: 604.424.9092

Toll Free: 1.877.352.9158
Fax: 1.877.453.0658
Email: info@microedgeinstruments.com
Web: www.microedgeinstruments.com

iLog Thermocouple Data Logger

Specifications

OVERVIEW

The iLog Thermocouple Data Logger is low cost, high accuracy, battery powered, stand-alone internal temperature + external thermocouple data logger. The logger records up to 4 mega-byte of data and stores them in non-volatile flash memory for later retrieval.

iLog Thermocouple Data Logger measures wide range of temperatures and works with these thermocouples: E, J, K, N, T, C.

Its on-board temperature channel provides environment monitoring and Cold-Junction compensation.

Its aluminum enclosure makes it excellent in the harshest industrial environment. Plug & Play USB port and versatile custom equation simplify communications and engineering unit conversion.

16-bit ADC makes it well suited for science and laboratory applications where precise and accurate measurements are critical.

Simply plug the logger to computer's USB port, and the software automatically recognizes it and handles the configuration, downloading, graph viewing and more...

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.

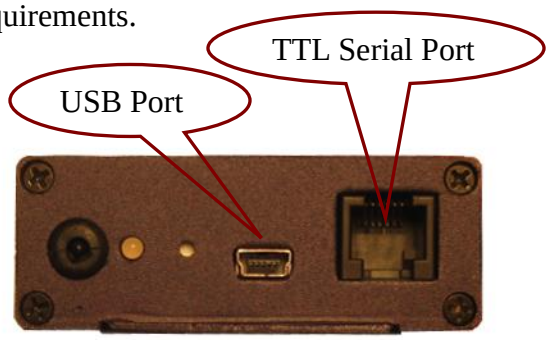
Free Upgrade of Software:

Both firmware and PC software are free for upgrade by couple of mouse clicks, keeping the logger and software always up-to-date with new features and bug fixes.

Multiple Communication Ports:

The iLog data loggers can be accessed via USB, Serial Port, 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.



12-Year Battery Life:

The internal lithium battery provides over 12 years of instantaneous logging operation when sampling at an interval of one minute.

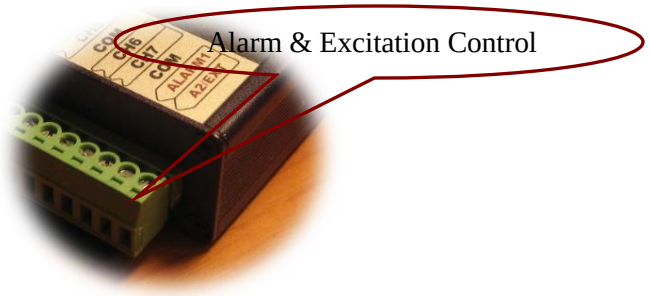
Fast Sampling Mode:

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

Alarm and Excitation Output:

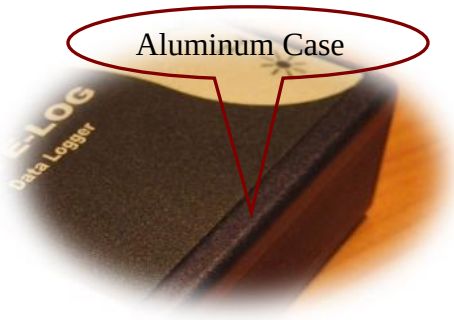
The iLog data logger notifies the alarm condition over alarm terminal strips or communication lines. (USB, Serial Port, MODEM)

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



Rugged Physical Design:

The rugged aluminum enclosure makes the iLog data loggers perfect in the harshest industrial environment.



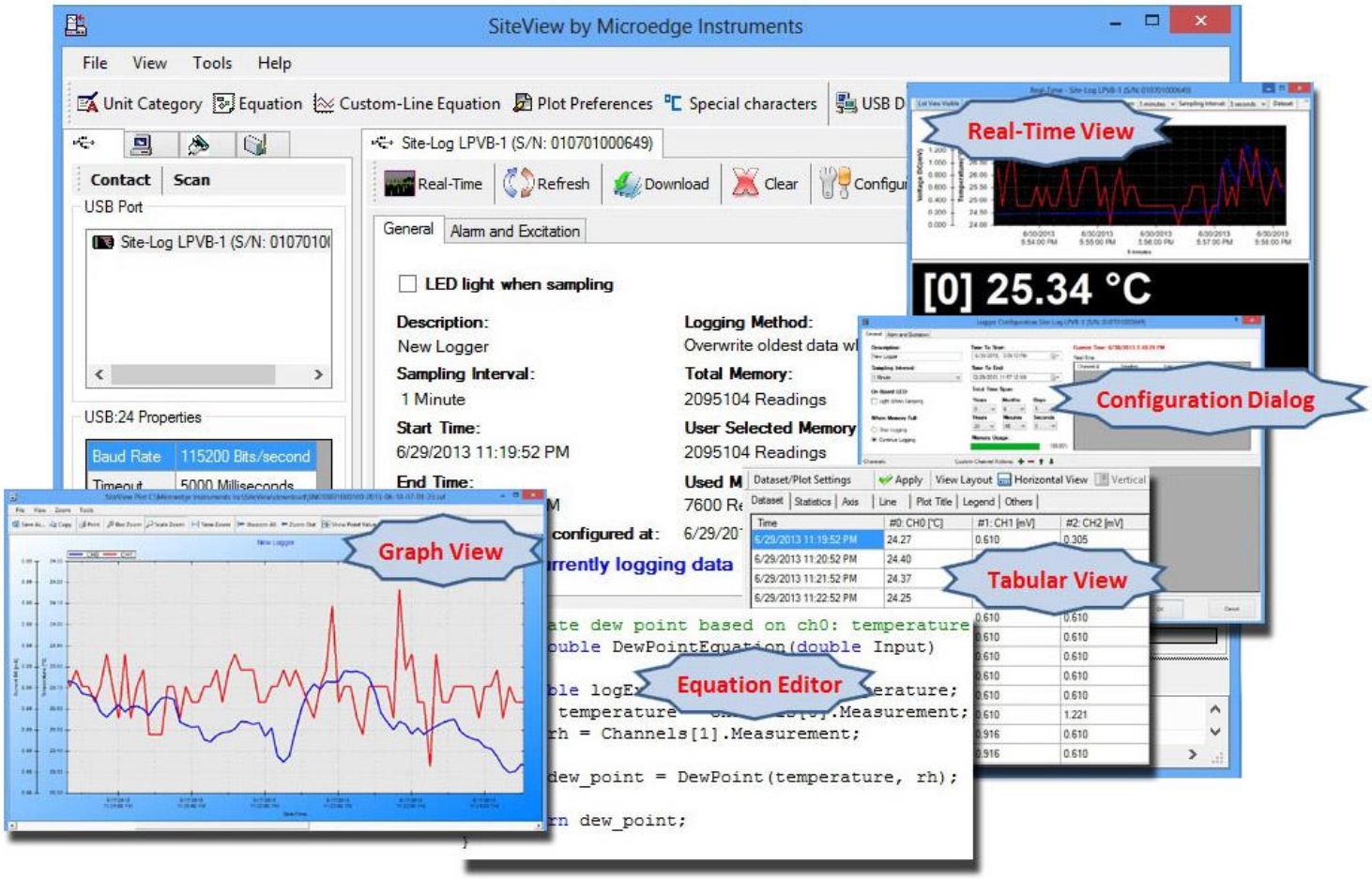
SITEVIEW SOFTWARE FEATURES

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

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

Besides basic data logger configuration, downloading, SiteView includes other powerful features like:

- Multiple Communications Interfaces: USB, Serial Port, Ethernet…
- Custom Equation Editor with C# language meet any complicated measurement requirements
- Multiple Data Views and Custom Formatting of Axis, Line, Annotation & Comments.
- Real-Time Chart View/Recording and User Calibration
- Export to CSV, TEXT, BMP, JPG, TIF, PNG, GIF file format.



SPECIFICATIONS

Product Identification	
Product Name	iLog Thermocouple Data Logger
Model	iTC-80
Inputs	
Connections	Pluggable terminal block for thermocouple input, alarm and excitation control outputs.
Channels	One on-board thermistor temperature (-40°C ~ 70°C, -40°F ~ 158°F) One external thermocouple channel:(-8mV ~ +73mV) for type E,J,K,N T Thermocouple
Resolution	0.0018%
Accuracy	Thermistor:± 0.2°C(0°C ~ 70°C, 32°F ~ 158°F) Thermocouple: ± 0.1% ~ 0.2% + T/C Accuracy
Input Impedance	>1 MOhms
Over-voltage protection	up to -3VDC ~ +40VDC
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 to 12 hours user selectable. (external power supply required if interval less than one second)
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 Site USB DeviceServer, 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	12 years based on 1 minute sampling interval
Software	
Site View (Sold Separately)	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.
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 ~ +70°C (-40°F ~ 158°F), 0~95%RH non-condensing.
Clock Accuracy	± 1 minute per month.
Approvals	CE, FCC

LOGGING CAPACITY TABLE

Sampling Interval	Logging Capacity	Sampling Interval	Logging Capacity
1 minute	727 days	1 second	12 days
10 seconds	121 days	100 ms	28 hours

ORDERING INFORMATION

Model	Description
iTC-80	iLog Thermocouple Data Logger