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# **PRECISE-LOG PL-TW**



#### **OVERVIEW**

The PRECISE-LOG PL-TW is an 8-channel, battery powered, standalone and WIFI-enabled thermocouple data logger Modbus server. The logger records eight external thermocouples and saves data in 8-MB memory.

Its aluminum enclosure makes it excellent in the harshest industrial environment.

Embedded WIFI module allows remote data monitoring and downloading. The data logger can be enabled by Modbus TCP protocol and become a Modbus TCP server.

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

Simply power the logger in WIFI covered area and access it from your computer for configuration, downloading, graph viewing and more...

## **Product specifications**

#### **FEATURES:**

### High Data Resolution:

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

#### Large Memory Size:

The 8-Mega-Byte Memory stores years of measurements.

#### Programmable Input Ranges:

Two software configurable input ranges (73mV, 18mV) cover all types of thermocouples.

#### Easy Access:

One Plug& Play USB port makes communications with PC SiteView software super easy. On-board WIFI module creates WIFI access point or connects to local network wirelessly, allowing remote monitoring and downloading.

#### 10-Year Battery Life:

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

#### ❖ 2-IN-1 Design:

The logger can operate as portable standalone data logger and be powered by internal battery. Or when powered by external 5VDC power supply, the logger automatically connects to WIFI network and be ready for remote access.

#### Rugged Physical Housing:

The rugged aluminum enclosure makes the PRECISE-LOG data loggers perfect in the harshest industrial environment.

#### SiteView Software Overview

SiteView is a PC based application works with all MEI data loggers for downloading, configuration and data analyzing and plotting.

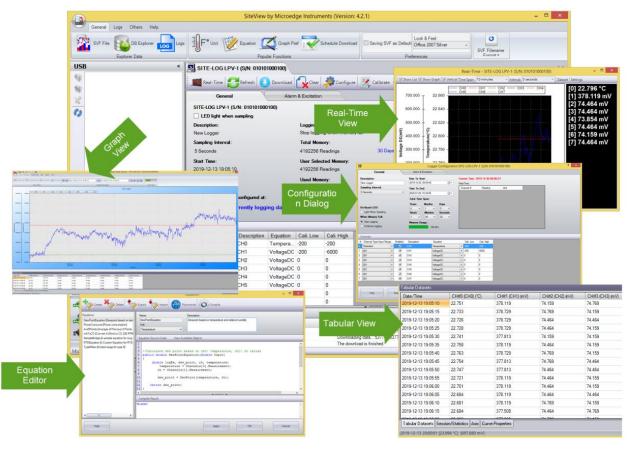
Its user-friendly graphic interface plus powerful functionalities fit both novice and advanced users.

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

SiteView is compatible with Window XP, Vista, 7, 8, 10 operating systems.

### **FEATURES:**

- Support USB, Serial port and Ethernet connections for easy local and remote access
- Fast communication speed up to 115200 bps makes downloading fast
- Real-time view and chart recording replaces chart recording device
- Custom equation and custom-line equation solves scientific and laboratory algorithm difficulties
- Zoom in/zoom out, annotation/label of graph functions provide detailed view of data
- Multiple file loading allows easy data comparison
- Dynamic statistics provides detailed information of current zoomed view
- Scheduled Download automatically backups data regularly to system database
- Export to CSV, TXT, BMP, JPG, TIF, PNG, GIF file formats



## Specification Details

Product Identification			
Product Name	PRECISE-LOG		
Model	PL-TW		
Inputs			
Connections	Pluggable terminal block for eight external channels		
Channels	Eight external thermocouple inputs.		
	Software programmable input range selections for each channel:		
	$-8 \sim 73 \text{mV}, -2 \sim 18 \text{mV}$		
Resolution	0.0018%		
Accuracy	±0.1% ~ 0.2% + T/C Accuracy @ 25°C		
Temperature Compensation	On-board thermistor		
Over-voltage protection	+/- 20 VDC		
Alarms			
Channel Alarms	wo editable alarm thresholds per channel.		
Alarm Indicator	On-board LED lights in red when in alarm condition.		
On-board Memory	<u>C</u>		
Capacity	8 Mbytes (4 Mega measurements).		
Data Retention	Over 20 years.		
Sampling & Logging	·		
Sampling Interval	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.		
Communications			
Interface	USB(USB cable included).		
	WIFI Module (USB wall adapter included):		
	Standard Server Mode: join existing WIFI access point.		
	AccessPoint Server Mode: create AP for PC to join.		
	Modbus Protocol for both STA and AP mode		
WIFI Module <sup>[1]</sup>	Standard: 802.11b/g/n,		
	Frequency Range: 2.412 – 2.484GHz		
	Transmit Power: 11-18 dBm		
	Receive Sensitivity: -82 to -93 dBm		
	Security: WEP/WPA-PSK/WPA2-PSK		
	Encryption: WEP64/WEP128/TKIP/AES		
	Can be Enabled/Disabled by SiteView software		
Battery			
Power	Built-in 3.6V Lithium Battery.		
Life Cycle	10 years based on 1 minute sampling interval in stand-alone mode.		
Software			
SiteView [2]	Configuration, downloading, plotting, scheduled-download, real-		
	time view, custom calibration and custom equation.		
Software Requirements	Computer with 1.0 GHz or faster processor		
	1 GB Memory or higher		
	10 GB of available hard-drive space or higher		
	Windows XP with SP2 or later, Vista, Window 7, 8, 10		
	At least one USB 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.	
Operating Environment	$-40 \sim +70$ °C ( $-40$ °F $\sim 158$ °F), $0\sim95$ %RH non-condensing.	
Clock Accuracy	+/- 1 minute per month.	
Approvals	CE, FCC	
Product Link	https://www.microedgeinstruments.com/pl-tw.php	

[1]:

Must be powered by external 5VDC power supply via Mini-USB Port.  $\,$ 

[2]: Sold separately.

Please refer to the product page for Modbus specifications: <a href="https://www.microedgeinstruments.com/pl-tw.php">https://www.microedgeinstruments.com/pl-tw.php</a>

### LOGGING CAPACITY

Sampling	Enabled	Logging	Sampling	Enabled	Logging
Interval	Channel	Capacity	Interval	Channel	Capacity
1 minute	1	8 years	1 second	1	48 days
1 minute	2	4 years	1 second	2	24 days
1 minute	8	1 year	1 second	8	6 days
10 seconds	1	485 days			
10 seconds	2	242 days			
10 seconds	8	60 days			