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VersaLog WF Multi-Channel Data Loggers



User's Manual

Accsense VersaLog

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About this Manual

This manual contains operational information for VersaLog WF Data Loggers. Please read this manual before using the data loggers.

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Conditions of Sale and Product Warranty

Accsense VersaLog and the Buyer agree to the following terms and conditions of Sale and Purchase:

1. Limited Warranty.

ACCSENSE VERSALOG warrants its product(s) to be free from defects in materials and workmanship for a period of one year from the date of registered purchase. Any unit which is found to be defective will, at the discretion of ACCSENSE VERSALOG, be repaired or replaced.

ACCSENSE VERSALOG will not be responsible for the repair or replacement of any unit damaged by user modification, negligence, abuse, improper installation, or mishandling.

ACCSENSE VERSALOG reserves the right to alter any feature or specification at any time.

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The product must NOT be used in applications where failure of the product could lead to physical harm or loss of human life. Buyer is responsible to conduct their own tests to meet the safety regulation of their respective industry.

IN NO EVENT WILL ACCSENSE VERSALOG BE LIABLE TO ANY PARTY FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES FOR USE OF THE PRODUCT, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR REVENUES, COSTS OF REPLACEMENT, BUSINESS INTERRUPTIONS, LOSS OF DATA OR DAMAGES RESULTING FROM USE OF OR RELIANCE ON THE PRODUCT, EVEN IF ACCSENSE VERSALOG IS EXPRESSLY ADVISED ABOUT THE POSSIBILITY OF SUCH DAMAGES.

3. Extended Warranty.

Extended 2-year warranty service is available to purchase on new products at time of order entry and up to ninety days thereafter. The extended warranty protects you from unbudgeted service expenses and provide additional 2 years of protection at a fraction of the price of a repair.

4. Return Policy.

Defective Product Return:

A Buyer may return a defective product to ACCSENSE VERSALOG for repair or replacement, at ACCSENSE VERSALOG option, in the event ACCSENSE VERSALOG determines that the product is defective. The defective product must be returned to ACCSENSE VERSALOG within the warranty period. The Buyer shall be responsible for all shipping costs. Repaired or replaced products are warranted for the balance of the original warranty period, or at least 90 days.

Non-defective Product Return:

Products that are not defective may be returned to ACCSENSE VERSALOG within 30 days from the date of shipment. All non-defective product returns are subject to a 20% restocking fee. If the product is unsatisfactory for the application for which it was purchased, ACCSENSE VERSALOG shall, at its option, either refund the purchase price paid by the Buyer or replace the product with one that is satisfactory for the application. The Buyer shall be responsible for all shipping costs and restocking fee determined by ACCSENSE VERSALOG.

Method of Return:

Prior to returning the product, completely fill out the RMA Application Form, send it to ACCSENSE VERSALOG or contact ACCSENSE VERSALOG directly for a Return Material Authorization number. All products returned to ACCSENSE VERSALOG must be securely packaged in the original shipping materials and reach ACCSENSE VERSALOG without damage and shipped in accordance with Applicable laws, rules, and regulations. The products must contain all software and accessories that were shipped to the Buyer in connection with the product.

5. ACCSENSE VERSALOG reserves the right to alter any feature or specification at any time.

Notes to Buyer:

If you disagree with any of the above terms or conditions you should promptly return the unit to the manufacturer or distributor within 30 days from date of purchase.

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Accsense VersaLog WF Data Loggers User's Manual

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1. Introduction

1.1 Features of the logger

Congratulations on purchasing the Accsense VersaLog series data loggers! These portable battery powered data loggers allow recording information and saving measurements to a 8MB flash memory for later retrieval.

The internal lithium battery provides up to 10 years of instantaneous logging operation when sampling at interval of one minute in stand-alone mode.

Accsense VersaLog data logger can be manipulated by SiteView Windows software for data downloading, logging management, and property configuration. It has USB interface for local communications and a WIFI module for remote access.

Accsense VersaLog data logger features a wide sampling interval range from one second to 12 hours.

The 16-bit analog-to-digital converter makes the measurements more precise and accurate.

Rugged, splash resistant aluminum enclosure makes it excellent in the harshest industrial environment.

Remote data monitoring and downloading through its WIFI module.

1.2 Approvals

CE

All Accsense VersaLog Series data loggers are in conformity with the EN standard(s) listed below:

EN 61000-6-1:[2007] EN61000-4-2:2009 EN61000-4-3:2006/A2:2010 EN61000-4-4:2012 EN61000-4-5:2006 EN61000-4-6:2014 EN61000-4-11:2004

EN 61000-6-3:[2007]

EN Standards for WIFI module: EN62311:2008 EN60950-1:2006+A11:2009+A1:2010+A12:2011+A2:2013 ETSI EN300 328 V1.8.1 (2012-06) ETSI EN 301 489-1 V1.9.2 (2011-09) ETSI EN 301 489-17 V2.2.1 (2012-09)



For WIFI enabled models:

Contains FCC ID:2ACZO-WIFI1232T, Canada IC ID: 20326-WIFI232S

All Accsense VersaLog Series data loggers comply with Part15 of the FCC Rules. Operation is subject to the following two conditions:

- 1. These devices may not cause harmful interference, and
- 2. These devices must accept any interference received, including interference that may cause undesired operation.

1.3 Care of the logger

Accsense VersaLog data loggers are designed to work in humid atmospheres of up to 95% RH non-condensing. They should be protected against immersion. The environment temperature should be within -40 to $+70^{\circ}$ C (-40 to $+158^{\circ}$ F).

1.4 Identity of the logger

Each logger has its own unique serial number, which can be found on the back of the enclosure. The serial number is used to identify the logger and enable us to keep a record of its history like calibrations and warranty. Please reference it in any correspondence with ACCSENSE VERSALOG.

1.5 Battery

The battery lasts in excess of 10 years when sampling at 1-minute intervals in stand-alone mode. When the battery is nearing the end of its service life, the on-board status LED will glow in amber each time the logger is sampling the data. The battery indicator on the status window in SiteView software will also display warning of low battery level. The battery operates approximately one or two weeks from the time the logger first indicates a low battery, but we

recommend that the battery be changed as soon as the warning is displayed. The battery is factory replaceable only.

1.6 Recalibration

Any Accsense VersaLog data logger is supplied with all channels pre-calibrated and should not require any further recalibration for a period of 12 months.

We recommend the logger be recalibrated every year. You may recalibrate the logger longer than a year depending on your application standard.

You may return the logger to the supplier for recalibration service or recalibrate it on your own via SiteView software.

SiteView software provides two-point calibration for the most of the loggers.

1.7 Safety Warning

Maximum Input Voltage Range

For logger model: WF-V, WF-TC:

The logger is designed to measure single common ground DC voltages in the range up to 20 VDC. Any voltages over this range may cause permanent damage to the device.

Maximum Input Current Range

For logger model: WF-C:

The logger is designed to measure single common ground DC current in the range up to 50 mA. Any current over this range may cause permanent damage to the device.

External Power Supply

When using external power supply (via PC's USB port or thirty party +5 VDC power supply) to power the logger please make sure that the external power supply has the same common ground with the external input process signals.

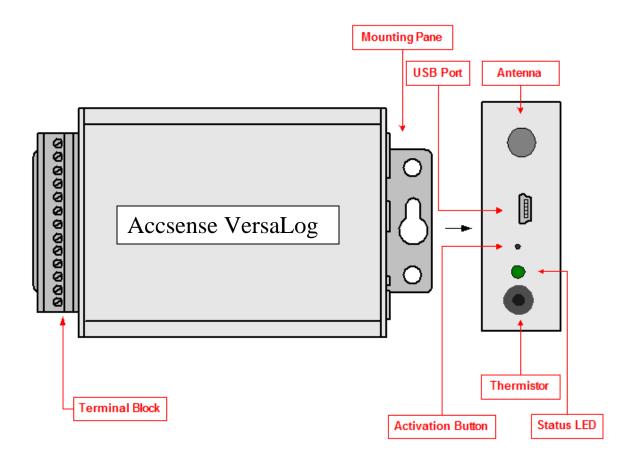
When using other third party external power supplies, please make sure the voltage of the external power supply is +5 VDC (+/- 5% ripple).

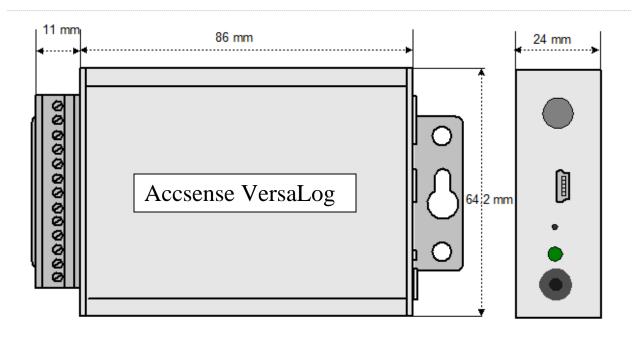
Grounding

The common ground of the Accsense VersaLog data logger is connected directly to the ground of the input process signals and the ground of the external power supply (if applicable).

2. Hardware & Mechanical Dimension

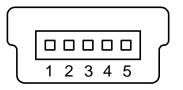
Logger Diagram:





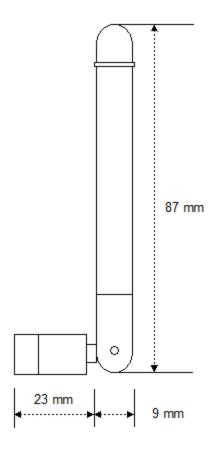
Dimension: 88 X 64.2 X 24 MM 3.46 X 2.53 X 0.95 Inches

USB Port Pin-out (Face-In)



- Pin1: External Power Supply (+5 VDC)
- Pin2: Logger Communications Receiver Line (RX)
- Pin3: Logger Communications Transmitter Line (TX)
- Pin4: Common Ground (COM, GND)

Antenna:

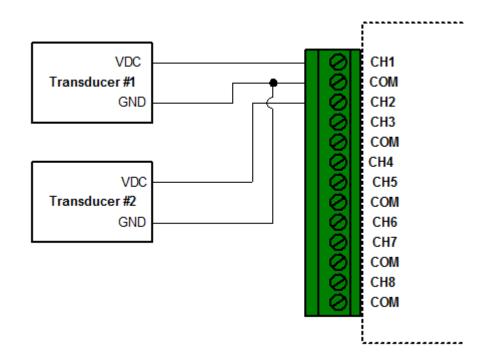


3. Channels and Sensor connections

All "COM" terminals are connected together and should be connected to the common ground of the process signals.

WF-V – Voltage Inputs

A WF-V logger has eight external voltage DC channels used to measure single-ended voltage DC signals maximum of 20 volt. The following figure illustrates the correct input connections:



Voltage External Input Connections

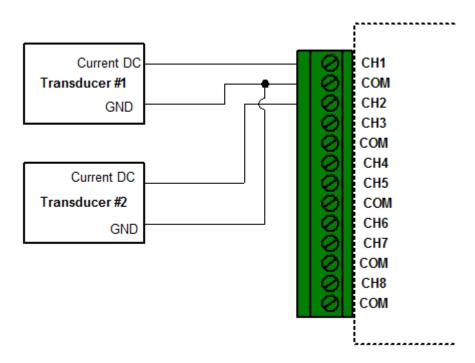
Note: All inputs must share the same common ground.

Channel and Sensor Specifications:

Connections:	Pluggable terminal block for eight external channels
Channels:	CH1 to CH8: Eight external Voltage DC with software
	programmable input range selections for each channel:
	0 to 20 V, -5 to 5 V
Resolution:	0.0018%
Accuracy:	+/- 0.05% FSR @ 25°C
Input Impedance:	> 1 Mohms
Over-voltage protection:	+/- 40 VDC

WF-C – **Current Inputs**

A WF-C logger has eight external current DC channels used to measure single-ended current DC signals maximum of 20 mA. The following figure illustrates the correct input connections:



Current External Input Connections

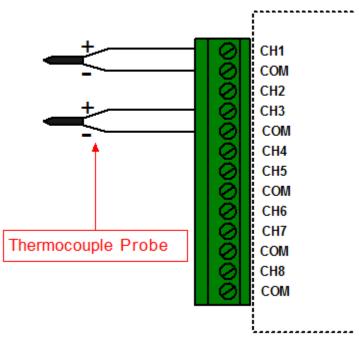
Note: All inputs must share the same common ground.

Channel and Sensor Specifications:

Connections:	Pluggable terminal block for eight external channels
Channels:	CH1 to CH8: Eight external Current DC inputs: 0 ~ 20 mA
ADC Resolution:	0.0018%
Accuracy:	+/- 0.1% FSR @ 25°C
Load Resistance:	12 Ohm
Over-current Protection	+/- 100 mA

WF-TC – Thermocouple Inputs

Besides the on-board thermistor channel, WF-TC logger has eight external voltage DC channels used to measure thermocouple probes or small voltage signals. The following figure illustrates the correct input connections:



Thermocouple Input Connections

Note: All inputs must share the same common ground.

Channel and Sensor Specifications:

Connections:	Plugeable terminal block for eight external channels
Channels:	CH0: on-board thermistor $(-40 \sim +70^{\circ}\text{C})$ $(-40 \text{ to } +158^{\circ}\text{F})$.
	CH1 to CH8: Eight external Voltage DC with software
	programmable input range selections for each channel:
	Range1: -8 to +73 mV
	Range3: -2 to +18 mV
Resolution:	0.0018%
Accuracy:	Voltage channels:
	Range:(-8 to +73 mV:
	+/- 0.1% (0.08 mV) @ 25°C + T/C Accuracy
	Range -2 to $+18$ mV:
	+/- 0.15% (0.03 mV) @ 25°C + T/C Accuracy
Temperature Compensation:	On-board thermistor
Over-voltage protection:	+/- 20 VDC

Measure Temperature:

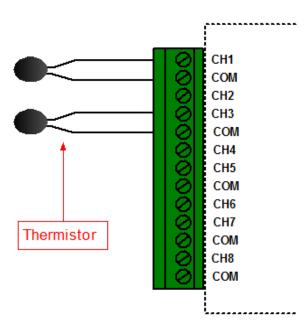
Based on the thermocouple type you want to use and the desired temperature range you want to measure you can select one of four channel's available ranges and the correct factory thermocouple equation:

Channel #	Channel Type/Input Range	Enabled	Description	Equation
0	Thermistor 😽		СНО	Temperature [Temperature]
1 (TC Range1(-8 to +73mV) 💌		CH1	VoltageDC [VoltageDC]
2	TC Range1(-8 to +73mV)		CH2	VoltageDC [VoltageDC]
3	TC Range1(-8 to +73mV) 🛛 👻	 Image: A set of the set of the	СНЗ	ThermocoupleJ [ThermocoupleJ]
4	TC Range1(-8 to +73mV) 💌		CH4	ThermocoupleK [ThermocoupleK] ThermocoupleN [ThermocoupleN]
5	TC Range1(-8 to +73mV) 🛛 👻		CH5	ThermocoupleT [ThermocoupleT] Digit [ADC Digit Value]
6	TC Range1(-8 to +73mV) 🔽	 Image: A set of the set of the	СН6	Ave5Points (Average of Previous 5 P

For detailed temperature range and voltage – temperature look-up table of a specific thermocouple type please refer to NIST's website at: <u>http://srdata.nist.gov/its90/download/download.html</u>

WF-TH – Thermistor / Resistor Inputs

WF-TH logger has eight external channels used to measure the external thermistors or resistors. The following figure illustrates the correct input connections:



Thermistor External Input Connections

Note: All inputs must share the same common ground.

Connections:	Plugeable terminal block for eight external channels
Channels:	CH1 to CH8: Eight external thermistor
Resolution:	0.0018%
Accuracy:	Thermistor channel: $+/- 0.2^{\circ}C(0^{\circ}C \sim 70^{\circ}C)$
-	External channels:
	+/- 0.2% FSR @ 25°C

Channel and Sensor Specifications:

Measure Resistance:

SiteView provides factory resistance equation for measuring the resistor's value. In Configuration dialog:

Choose Resistance equation:

Channel #	Channel Type/Input Rang	le	Enabled	Description	Equation
0	Thermistor	~	~	Office	Temperature [Temperature]
1	Resistance (>8K)	*	V	Lab with Temperature	Resistance [Resistance]
2	External Thermistor	¥	~	СН2	Resistance [Resistance]
3	Resistance (8K)	¥	~	СНЗ	Ave5Points Average of Previous 5 Pc
4	Resistance (8K)	¥	~	CH4	CO_200PPM [CO 200 PPM Equation]
5	Resistance (8K)	~	~	CH5	ExtThermistor2 [Equation for an exterr PowerConsume [Power consumption]
6	Resistance (8K)	*	~	CH6	StraightLine [Custom Line Test]

Measure Temperature:

The simple way to measure temperature is by using built-in "Temperature" equation. You select "Temperature" in "Equation" column:

#	Channel Type/Input Rang	e	Enabled	Description	Equation		Cali. Low	Cali. High	Action
0	Thermistor	~		СНО	Temperature	×	0	0	
	External Thermistor	~	V	СН1	Temperature	v	192	-176	Change Coefficients
2	External Thermistor	¥	V	CH2	Resistance	~	39	-11	
3	Resistance (8K)	~	~	CH3	Resistance	<	10	11	
4	Resistance (8K)	~		CH4	Resistance	~	0	0	
5	Resistance (8K)	~		CH5	Resistance	<	0	0	
6	Resistance (8K)	~		CH6		~		0	
7	Resistance (8K)	~		CH7	Resistance	<	0	0	

Then you need to change temperature coefficient values by clicking "Change Coefficients" button in "Action" column:

#	Channel Type/Input Range	e	Enabled	Description	Equation		Cali. Low	Cali. High	Action
0	Thermistor	~		CHO	Temperature	¥	0	0	
	External Thermistor	~	V	CH1	Temperature	~	192	-176	Change Coefficients
2	External Thermistor	¥	~	CH2	Resistance	~	39	-11	
3	Resistance (8K)	~	~	СНЗ	Resistance	~	10	11	
4	Resistance (8K)	¥		CH4	Resistance	4	0	0	
5	Resistance (8K)	~		CH5	Resistance	~	0	0	
6	Resistance (8K)	~		CH6	Resistance	~	0	0	
7	Resistance (8K)	~		CH7	Resistance	~	0	0	
								1	

In the pop-up dialog enter new temperature coefficient values and click "OK" button.

		Thermistor Coeffici	ients	
A thermist temperatu		sistor whose resistance v	varies significantly w	vith
	hart-Hart equatio res with high pre	on is widely used for therr cision:	nistors for a wide ra	nge of
T =	a+ł	1 o ln (R) + c li	$\frac{1}{n^{3}(R)}$ - 2	273.15
Where:	T is temperati a, b and c are temperature c	called the Steinhart-Har	t parameters also c	alled
	R is resistanc	e in ohms		
		ure' equation for any exte		nel vou need
Please e		cients which you can get ving temperature coe	fficient values:	
Please e	enter the follow	ving temperature coe	fficient values:	manufacturer.
Please e a: 0.00090326	enter the follow	ving temperature coe b: 0.000248772	fficient values: c: 2.041095E-0	manufacturer.
Please e a: 0.00090326	enter the follow 79 w three temperat generate the coe	ving temperature coe b: 0.000248772 ture values and their resis	fficient values: c: 2.041095E-0 stance values you c	nanufacturer. 17 an use below

You can also use a custom equation to do the same job or even more complicated calculation. An example of external thermistor equation is included in SiteView package. When you create your own equation you can refer to this equation and replace those temperature coefficients with the ones obtained from the thermistor manufacturer. The contents of the sample equation looks like this:

```
1
2
3
  //An example for external thermistor channel.
4
  //You may change a,b and c values based on the thermistor spec
  //Value 'Input' is resistance value
5
6 public double ExtThermistor2 (double Input)
7
   {
8
9
       double a, b, c, lgr, Output;
10
       //different thermistor will have different a, b, c values
11
       a = 0.001028444;;
12
       b = 0.000239244;
13
       c = 0.00000156;
14
15
       //validation
16
       if(Input <= 0)</pre>
17
           Input = 1;
       //==========
18
19
       lgr = Math.Log(Input);
20
21
         Output = 1f / (a + b * lgr + c * lgr * lgr * lgr) - 273.15f;
22
23
         return Output;
24
25 }
26
```

Once you have created your equation (for example YSI2252(YSI thermistor 44004)), you can apply it to the channel:

Channel #	nel # 🔰 Channel Type/Input Range		Enabled	Description	Equation
0	Thermistor	~	V	Office	Temperature [Temperature]
1	External Thermistor	~	V	Lab with Temperature	Thermistor103J2 [Mytest] 🛛 👻
2	External Thermistor	~	~	CH2	DewPointEquation [Dew point equatic ExtThermistor2 [Equation for an exterr
3	Resistance (8K)	¥	 Image: A start of the start of	СНЗ	PowerConsume [Power consumption]
4	Resistance (8K)	~	~	CH4	StraightLine [Custom Line Test] StrightLineLow [Low Temp]
5	Resistance (8K)	~	~	CH5	testTemp [Test] Thermistor103J2 [Mytest]
6	Resistance (8K)	~	 Image: A start of the start of	СН6	YSI2252 [YSI thermistor 44004]

4 Basic Functions

Built-In Equations

Equation and Channel Type are two essential parameters to make sure the physical measurement can be converted correctly.

An equation is a software functionality identified by its name of up to 16 characters. A built-in equation is an equation provided by SiteView software to convert a measurement for a specific channel type.

A channel must have an equation assigned to it in order to make the measurement conversion.

"Digit" built-in equation can be assigned to any channel type. If you assign "Digit" equation to a channel the physical measurement will be the original digital value measured by ADC (Analog-to-digital converter) hardware.

Channel Type	Equation Name	Equation Description
Internal-Thermistor	Temperature	Temperature
External-Thermistor	Temperature	Temperature
0-5 VDC	VoltageDC	Voltage DC
0-20 VDC	VoltageDC	Voltage DC
4-20 mA DC	CurrentDC	Current DC
0-50 mA DC	CurrentDC	Current DC
Thermocouple	ThermocoupleE	Thermocouple E
Range:	ThermocoupleJ	Thermocouple J
-8 to +73 mV	ThermocoupleK	Thermocouple K
	ThermocoupleN	Thermocouple N
	ThermocoupleT	Thermocouple T
	VoltageDC	Voltage DC
Thermocouple	ThermocoupleB	Thermocouple B
Range:	ThermocoupleE	Thermocouple E
-2 to +18 mV	ThermocoupleJ	Thermocouple J
	ThermocoupleK	Thermocouple K
	ThermocoupleN	Thermocouple N
	ThermocoupleR	Thermocouple R
	ThermocoupleS	Thermocouple S
	ThermocoupleT	Thermocouple T
	VoltageDC	Voltage DC
Х	InternalBattery	Measure the internal battery
		voltage level
Х	ExternalPower	Measure the external power
		supply

The following table lists all available built-in equations for all channel types:

Measuring & Logging

During the session of logging, when it's time to sample, the VersaLog measures the signal of each enabled channel, converts it to digital value and saves to the on-board memory.

The VersaLog uses a group of pre-set parameters to decide when and how to take in data and save it to the memory. Those parameters can be configured by SiteView software and their definitions are given as below:

Start Time:

This parameter specifies the date and time when the logger starts the session of logging.

End Time:

This parameter specifies the date and time when the logger will stop the session of logging. This value may be overridden by **Logging Mode** parameter. If **Logging Mode** was set to **Continue Logging**, the **Start Time** and the **End Time** will be shifted forward.

Sampling Interval:

This parameter specifies the time span the logger will wait after it takes the first sample and before it takes the second sample.

Logging Mode:

This parameter specifies if the logger will stop or continue logging when the memory is full. Available settings are **Stop Logging** and **Continue Logging**.

If **Logging Mode** was set to **Stop Logging**, the logger will stop logging at the **End Time**. If **Logging Mode** was set to **Continue Logging**, the logger will continue logging and the oldest data will be overwritten by the new data.

Downloading Data

The data in the logger can be transferred to the computer by SiteView software even when the logger is still recording

The readings saved in the logger are ADC digital values, and will be converted to physical measurements by SiteView software after they are downloaded to the computer. The data conversion is handled by an equation that may be embedded in SiteView software or a script provided by the user.

Field Activation

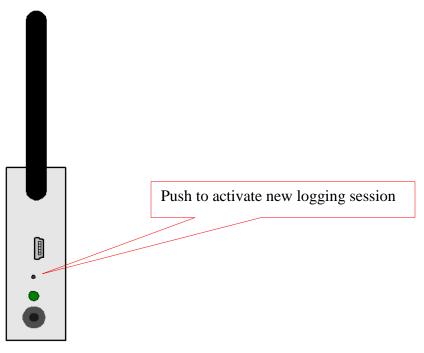
VersaLog data logger comes with an on-board activation button which can be used to activate/initiate the logging session in the field.

To activate the logger for new session:

1. With the SiteView software, open the configuration dialog of the logger, and set the start time to any time the desired start time will never reaches. Click **OK** button to save new settings to the logger.

	Time to Start: 07/08/2010, 4:11:44 PM	*	
	Time to End:	\searrow	
	18/09/2010, 4:31:44 PM	~	
			ר ר
Apply	ок	Cancel	

2. The logger is now in **Start Delay** mode. When you need to activate the logger, press and hold the Activation button on the logger. When you see the status LED starts to flash release the button. The logger is now activated and is recording data.



Note: The activation button cannot be further activated once the logger has started the new session.

Reset Device

The on-board activation button can also be used as a reset button in case the data logger does not respond to the PC communications.

Reset of CPU will cause the data and clock losses. Please reconfigure the logger after the recovery.

To reset the CPU, press and hold the activation button, the LED starts to blink in RED color with interval of one second. After 10 seconds the LED starts quick blinking to indicate it will reset the CPU. Release the button when you see this. Then plug the logger to USB port of PC, Site View should show it under the USB comm Tab.

Status LED

VersaLog logger has an on-board LED used to indicate:

- 1. Sampling: When the LED was enabled by SiteView, it will flash once in green when the logger is sampling. The colour of the LED can be overridden by the following conditions:
- Alarms: The LED will flash in red when it samples if any channel alarms are enabled and are triggered.
- 3. Low Battery:

The LED will flash in amber when it samples if the logger detects a low battery level.

If you do not need the LED to indicate the status of operation you can disable it (via SiteView) in order to increase the battery life.

5. Software

SiteView Windows software is used to communicate with the VersaLog data logger for data downloading, logging management, and channel range configuration.

This section outlines basic functions that SiteView offers. For complete instructions on how to use SiteView software please refer to **SiteView User's Manual** available for download online.

System Requirements

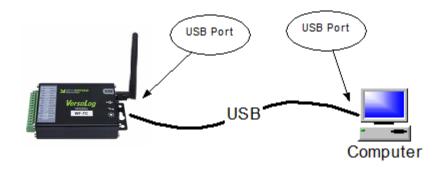
Computer: CPU: 1.0 GHZ or above Memory: 1 GB or above Port: 1 USB port Hard Drive: 1GB or above

Operating System: Window XP with SP2 or above, Window Vista, Window 7, 8, 10

Communications Interfaces

The VersaLog logger has a USB port used for communications with a computer. The WIFI enabled version has an on-board WIFI module used for remote communication.

The following schematics illustrate different options that SiteView software can communicate with a data logger.



USB Connection



WIFI Wireless Connection

Install SiteView and USB Driver

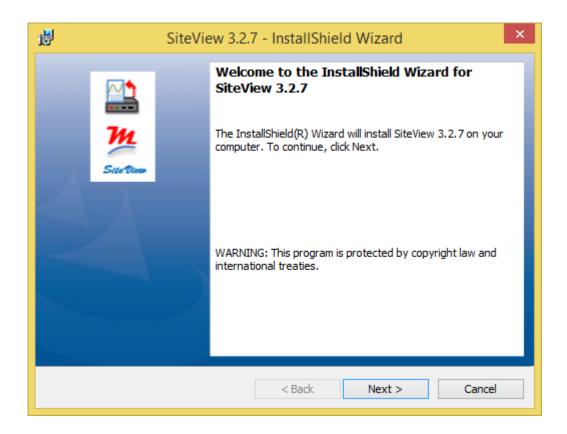
1. Configure for Windows 8,10 User:

Please refer to the on-line document about how to configure Windows 8 for the USB driver to be installed correctly: http://www.microedgeinstruments.com/Win8Configurations.pdf

Please refer to the on-line document about how to configure Windows 10 for the USB driver to be installed correctly: http://www.microedgeinstruments.com/Win10Configurations.pdf

2. Install SiteView.

Insert the included CD to the CD Drive. The installation should start to run automatically. Follow the on-screen instructions to complete the installation.



Click "Next >" button to proceed to the next page.

BiteView 3.2.7 - InstallShield Wizard	×
License Agreement Please read the following license agreement carefully. Versa	Log
Software License Agreement	^
PLEASE READ THIS SOFTWARE LICENSE AGREEMENT CAREFULLY BEFORE DOWNLOADING OR USING THE SOFTWARE. BY CLICKING ON THE ACCEPT BUTTON, OPENING THE PACKAGE, DOWNLOADING THE PRODUCT, OR USING THE EQUIPMENT THAT CONTAIN THIS PRODUCT, YOU ARE CONSENTING TO BE BOUND BY THIS AGREEMENT IF YOU DO NOT AGREE TO ALL OF THE TERMS OF THIS AGREEMENT, CLICK THE DO NOT ACCEPT OF CANCEL BUTTON AND THE INSTALLATION PROCES WILL NOT CONTINUE.	чs IT.
Ownorship of the Software	×
I accept the terms in the license agreement Pri I do not accept the terms in the license agreement	nt
InstallShield	
< Back Next > Car	ncel

Please read the License Agreement carefully. If you accept the terms click "I Agree", then click "Next >" button. Otherwise click "Cancel" to cancel the installation.

😼 SiteView 3.2.7 - InstallShield Wiz	x
Readme Information Please read the following readme information carefully. Versalog	g
IMPORTANT!!	^
If your operating system is one of the followings	
Windows 8 Windows 8.1 Windows 10	
you must follow the detailed instructions in either	
Win8Configurations.pdf or Win10Configurations.pdf	Ŷ
InstallShield	
< Back Next > Cancel	

If you have already followed the Windows 8/10 instructions click "Next >" button to proceed to the next page.

谩	SiteView 3.2.7 - InstallShield Wizard ×
	tion Folder At logistal to this folder, or click Change to install to a different folder rsalog
Ø	Install SiteView 3.2.7 to: C:\ACCSENSEVersaLog\SiteView\ Change
InstallShield	< Back Next > Cancel

In this dialog select a destination folder where SiteView will be installed. We recommend you keep the default folder.

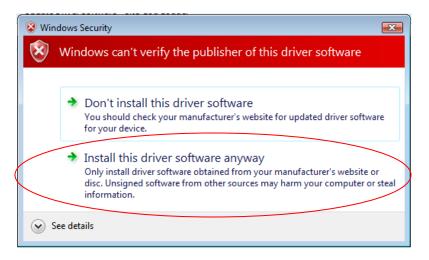
Once you are ready, click "Next >" button to proceed to the next page.

B SiteView 3.2.7 - InstallShield Wizard ×
Ready to Install the Program
The wizard is ready to begin installation. VersaLog
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
Current Settings:
Setup Type:
Typical
Destination Folder:
C:\ACCSENSEVersaLog\SiteView\
InstallShield
< Back 🛞 Install Cancel

Click "Install" button to start the installation.

i	SiteView 3.2.7 - InstallShield Wiz - 🗆 🗙
The proc	SiteView 3.2.7 Transfeatures you selected are being installed. VersaLog
ß	Please wait while the InstallShield Wizard installs SiteView 3.2.7. This may take several minutes.
Too to life to the	
InstallShield -	< Back Next > Cancel

Depending on the operating system, you may see the dialog similar to the one below displayed. Please select "**Continue Anyway**" or "**Install this driver software anyway**" to allow the software and the driver to be installed.



As SiteView is being installed the above dialog shows the installation progress by percentage. Once the installation is complete, the below dialog appears:

1	SiteView 3.2.7 - InstallShield Wizard			×
			InstallShield Wizard Completed	٦
	Site View		The InstallShield Wizard has successfully installed SiteView 3.2.7. Click Finish to exit the wizard.	
	A		✓ Launch the program	
			< Back Finish Cancel	

Click "Finish" button to finish the installation and close the dialog.

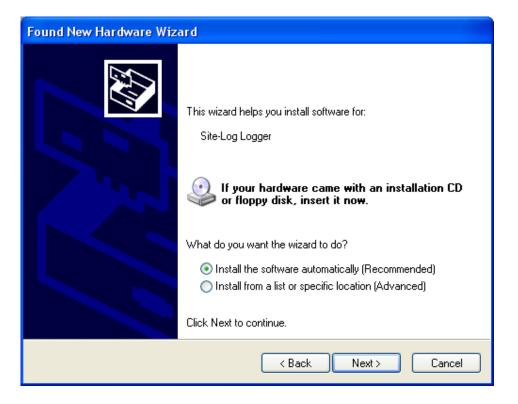
Connect Data Logger

Connect the logger to the computer's USB port. Windows Vista and Windows 7, 8, 10 will automatically recognize the data logger.

For Windows XP user, the following dialog window will appear:

Found New Hardware Wizard		
	Welcome to the Found New Hardware Wizard	
	Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission). Read our privacy policy	
	Can Windows connect to Windows Update to search for software?	
	O Yes, this time only	
	Yes, now and every time I connect a device	
	 No, not this time 	
	Click Next to continue.	
	< Back Next > Cancel	

Select "No, not this time" from options available and then Click "Next >" to proceed with the installation.



Select "Install the software automatically (Recommended)" as shown in the above figure and then click "Next >".

Found New Hardware Wizard
Please select the best match for your hardware from the list below.
Site-Log Logger
Description Version Manufacturer Location
Site-Log Logger 2.8.8.0 FTDI c:\windows\inf\oem5.ir
Site-Log Logger 2.8.8.0 Microedge Instruments Inc. c:\windows\inf\oem9.ir
This driver is not digitally signed! <u>Tell me why driver signing is important</u>
< Back Next > Cancel

Select the item with Manufacturer of Microedge Instruments Inc and click "Next>" to proceed.

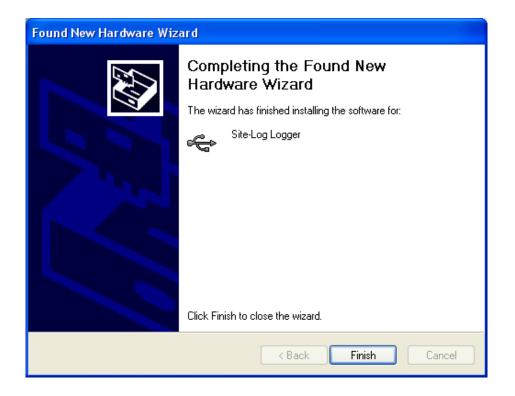
In the following message dialog, click "Continue Anyway" to continue with the installation:

Hardwa	re Installation
1	The software you are installing for this hardware: Site-Log Logger has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.) Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
	Continue Anyway STOP Installation

The screen below will be displayed as Windows copies required driver files:

Found New Hardware Wizard
Please wait while the wizard installs the software
Site-Log Logger
Setting a system restore point and backing up old files in case your system needs to be restored in the future.
< Back Next > Cancel

Windows should then display a message indicating the installation was successful:



Activate SiteView

After the installation SiteView needs to be activated by entering Product Key you obtained when you bought SiteView.

If the above installation of SiteView was successful, SiteView can be launched by either one of the following methods:

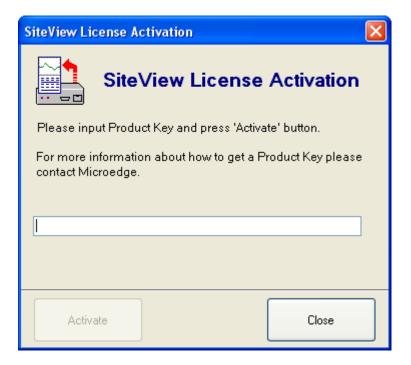
Double click on SiteView icon on the desktop:



Or:

Using Windows Start Menu, select Start : All Programs: Microedge Instruments Inc.: SiteView.

Double click "SiteView" icon on the desktop, and the following dialog appears:



Enter the Product Key, then click the **Activate** button. If the Product Key is accepted the following confirmation dialog will appear:

SiteView 🔀
SiteView was activated successfully
ОК

Click **OK** button to finish the activation. From now you can start using SiteView.

Main Window Frame

Communio	cation Panel	Menu Bar	Tool Bar	Main Wok	ing Panel	
L						
E SiteView	by Microedge I	Instruments				
File View	Tools Help					
🛃 Unit Cateo	pry 🕃 Equation	🔛 Custom-Line B	Equation 🛛 🔎 Plot Pro	eferences 📲 Spec <mark>a</mark>	al characters	
÷ 📃	۵					
Contact						
USB Port-						
i≪⇒ LPV-1 (S/N: 0101010003F	F2)				
USB:596 Pro	perties					
Baud Rate	115200 Bits/sec	ond				
Timeout	5000 Millisecond					
Retry	5 Times					7// icroedge
Packet Size	4000 Bytes					Instruments Inc.
		Log				
		Time		Reporter	Log	
		2011/5/	/22 17:48:24 9	iite-Log Logger-595 iite-Log Logger-595	Open connection The connection wa	is opened.
	nge Properties			iite-Log Logger-595 iiteView	Load logger serial r SiteView started.	iumber
L		¢ • • • •			onor ion ordited.	······
			Information Lo	g Panel		

Communication Panel

The communication Panel contains USB, USB Device Server, Serial Port and Serial Device Server communication tabs that are used to deal with the respective physical logger connections to the computer. For instance, if the logger is connected to the computer via a USB port you need to use USB tab to communicate with the logger.

Menu Bar

The Menu Bar contains File, View, Tools, and Help menus and their respective sub menus that are used to complete various tasks.

Tool Bar

The Tool Bar provides an easy way to access the menu items by including some of the frequently used items on the tool bar as the tool bar buttons.

Main Working Panel

The Main Working Panel contains a series Tab pages for logger status and the graph information illustrated as the follows:

	Click on eac caption to vi related page	10		
← LPVB-1 (S/I	N: 01070100041A)	LRHT-1 (S/	'N: 0204010004D0	
Real-Time	e 🔇 🕽 Refresh	🕼 Download	Configure	4

Information Log Panel

This section shows the information logs for any activities SiteView does. This is for diagnostics and information purposes.

View Logger Status

This manual will use USB as an example of communications interface. For other communications interfaces please refer to **SiteView User's Manual** available for download online.

If the logger is connected to the computer correctly the logger icon should show in USB tab of the communication panel illustrated below:

2					
File	e View	Tools	Help		
x	Unit Categ	ory 🐺 E	quation	🔛 Custom-	Line Ec
чё с н		ا 🐟)		
C	ontact 9	ican			
-US	B Port				
	PRECISE	E-LOG PL-Y	VW (S/N:	06070060002	0)

Double clicking **VersaLog Logger** icon or clicking "Contact" button with the icon been highlighted will bring up the logger status page.

The status page shows the start and end time, sampling interval and other properties of the connected logger:

General	Alarm Wif						-
✓ LEC) light whe	n sampling					Firmware: 1.42 Board ID: WVITH-C-5
Descrip				ogging Met		6 H	
New Logger					when memo	ry full	Battery Level:
5 Seco	n g Interval nde	2		Total Memory: 4192256 Readings		30 Days 7 Hours 49 Minutes 20 Seconds	3.67V (100%)
					ed Memory:		
				38448 Rea	-	6 Days 1 Hours 33 Minutes 50 Seconds	
		Used Memory: 200 Readings					
The log	jger was la	ast configure	edat: 3/	20/2016 10		2 Minutes 5 Seconds (0.0%)	
The log	jger was la		edat: 3/	20/2016 10		2 Minutes 5 Seconds (0.0%)	
The log The lo Channels:	jger was la	ast configure	edat: 3/	20/2016 10	:42:19 AM	2 Minutes 5 Seconds (0.0%)	
The log The lo Channels: Channel	ger was la ogger is Enabled	ast configure currently	ed at: 3/ logging c Equation VoltageDC	20/2016 10: data Cali. Low 0	:42:19 AM	2 Minutes 5 Seconds (0.0%)	_
The log The log Channels: Channel 1 [20V]	Enabled	ast configure currently Description	ed at: 3/ logging c Equation VoltageDC VoltageDC	20/2016 10 data Cali. Low 0 0	:42:19 AM Cali. High	2 Minutes 5 Seconds (0.0%)	
The log The log Channels: Channel 1 [20V] 2 [20V]	Enabled	currently Description	ed at: 3/ logging c Equation VoltageDC	20/2016 10 data Cali. Low 0 0	Cali. High	2 Minutes 5 Seconds (0.0%)	
The log The log Channels: Channel 1 [20V] 2 [20V] 3 [20V]	Enabled	Description CH1	ed at: 3/ logging c Equation VoltageDC VoltageDC	20/2016 10: Jata Cali. Low 0 0 0	Cali. High 0	2 Minutes 5 Seconds (0.0%)	
The log The log Channels: Channel 1 [20V] 2 [20V] 3 [20V] 4 [20V]	Enabled	Description CH0 CH2	ed at: 3/ ogging c Equation VoltageDC VoltageDC	20/2016 10: lata Cali. Low 0 0 0 0 0	Cali. High 0 0 0	2 Minutes 5 Seconds (0.0%)	
The log The lo Channels: Channel 1 [20V] 2 [20V] 3 [20V] 4 [20V] 5 [20V]	Enabled	Description CH0 CH2 CH3	ed at: 3/ logging c Equation VoltageDC VoltageDC VoltageDC VoltageDC	20/2016 10: Jata Cali. Low 0 0 0 0 0 0 0	Cali. High 0 0 0 0	2 Minutes 5 Seconds (0.0%)	
The log The lo	Enabled	Description CH0 CH1 CH2 CH3 CH4	ed at: 3/ ogging c Equation VoltageDC VoltageDC VoltageDC VoltageDC	20/2016 10: Jata Cali. Low 0 0 0 0 0 0 0 0 0 0 0	Cali. High 0 0 0 0 0 0 0	2 Minutes 5 Seconds (0.0%)	

General

This sub tab page displays the general properties of the logger.

Alarm

This sub tab page displays the properties regarding the alarm. By clicking the "Alarm" tab page caption, the following page will appear:

2	200Wilload		onfigure 🔨 Calil	brate 🔹 🙀
/ifi				•
tings:				
Enabled	Low Alarm	High Alarm	Unit	
	-670.176	-670.176	mV	
-	-541.085	-412.299	mV	
	-672.007	-672.007	mV	
	-672.313	-672.313	mV	
	-668.650	-668.650	mV	
	-672.618	-672.618	mV	
	-669.566	-669.566	mV	
	-669.871	-669.871	mV	
	tings: Enabled	tings: Enabled Low Alamm -670.176 -541.085 -672.007 -672.313 -668.650 -672.618 -669.566	tings: Enabled Low Alarm High Alarm -670.176 -670.176 Image: -672.07 -672.007 -672.007 -672.313 -668.650 -668.650 -672.618 -672.618 -669.566 -669.566	tings: Enabled Low Alam High Alam Unit -670.176 -670.176 mV Image: Comparison of the state of th

WIFI:

This sub tab page displays the properties regarding the WIFI:

RECISE-LOG PL-VW (S/N: 0	60700600020)			
Real-Time	💋 Download	💢 Clear	Configure	👗 Calibrate 🝷 🌄
General Alarm Wifi				
Wifi Mode:	Server Mode			
Device IP Address:	192.168.0.116	MAC	Address:	AC:CF:23:73:63:EA
Port:	5678			
Wifi Access Point				
SSID: skylow				
✓ Connected				
Signal Streng	gth: 90%			

Through the tool bar buttons you can act on other tasks described in the following chapters.

Configure Logger

Configuration of the logger is a procedure to edit the properties of the logger and to start the new logging session.

If you are already in the logger status panel, clicking on the **Configure** button will bring up the configuration dialog window:

-			Logger Cor	figuration PRECISE-L	DG PL-VW	(S/N: 060700)600020)		_ 0
Ger	eneral Alarm WiFi Settings						· · · · · ·		
1	Description:		Time To Start:		Current	ime: 3/20/201	6 11:07:34 AM		
[New Logger		3/20/2016, 11	:05:16 AM	Real-Time				
	Sampling Interval:		Time To End:		Channe	# Read	ling Unit		
	5 Seconds		3/26/2016, 12	:39:06 PM					
			Total Time Sp	an:					
			Years N	onths Davs					
0	On-Board LED:		Years M 0 ∨ 0	lonths Days					
	On-Board LED: ✓ Light When Sampling		0 🗸						
[0 v 0 Hours M	6 4					
[Light When Sampling		0 ∨ 0 Hours N	6 finutes Seconds 33 50					
[✓ Light When Sampling When Memory Full:		0 ∨ 0 Hours M 1 ∨ 3	6 finutes Seconds 33 50					
(Light When Sampling When Memory Full: Stop Logging Continue Logging		0 ∨ 0 Hours M 1 ∨ 3	inutes 6 Seconds 33 50					
[((ha	Light When Sampling When Memory Full: Stop Logging Continue Logging annels:	Enabled	0 V C Hours N 1 V Sage	inutes 6 Seconds 33 50	Cali.	ow Cali. Hidi	h Fact. Cali Low	Fact. Cali Hidh	_
(((ha	Light When Sampling When Memory Full: Stop Logging Continue Logging		0 ∨ 0 Hours M 1 ∨ 3	6 v finutes Seconds 33 v 50 v a: 20.00%	Cali. 1	ow Cali. Higt	Fact. Cali Low 1896	Fact. Cali High -7070	
(((#	Light When Sampling When Memory Full: Stop Logging Continue Logging annels: Channel Type/Input Range	 Image: Image: Ima	0 C Hours N 1 C Memory Usage	6 v finutes Seconds 33 v 50 v a: 20.00%				-	
(((#	Ught When Sampling When Memory Full: Stop Logging Continue Logging annels: Channel Type/Input Range 20V	/ /	0 V Hours N 1 V Memory Usage Description CH0	inutes 6 finutes Seconds 33 50 a: 20.00% Equation VoltageDC	∀ 0	0	1896	-7070	
(((t	Ught When Sampling When Memory Full: Stop Logging Continue Logging annels: Channel Type/Input Range 20V 20V		0 CH1	inutes 6 finutes Seconds 33 50 a: 20.00% Equation VoltageDC VoltageDC VoltageDC	✓ 0 ✓ 0	0	1896 1896	-7070 -7117	
(((t	Ught When Sampling When Memory Full: Stop Logging Continue Logging annels: Channel Type/Input Range 20V 20V 20V	 <	0 CH0 CH1 CH2	inutes 6 finutes Seconds 33 50 a: 20.00% Equation VoltageDC VoltageDC VoltageDC VoltageDC	 ✓ 0 ✓ 0 ✓ 0 ✓ 0 	0 0 0 0	1896 1896 1896	-7070 -7117 -7228	
(((Light When Sampling When Memory Full: Stop Logging Continue Logging annels: Channel Type/Input Range 20V 20V 20V 20V 20V 20V 20V 4	> > > > > >	D CH3	0 6 v finutes Seconds 33 50 v e: 20.00% Equation VoltageDC VoltageDC VoltageDC VoltageDC VoltageDC VoltageDC VoltageDC	 ✓ ✓ ✓ ✓ ✓ ✓ ✓ 	0 0 0 0 0	1896 1896 1896 1896 1896	-7070 -7117 -7228 -7247	
(((Light When Sampling When Memory Full: Stop Logging Continue Logging Annel Type/Input Range 20V 20V 20V 		0 CH4	0 6 V finutes Seconds 33 50 V e: 20.00% Equation VoltageDC VoltageDC VoltageDC VoltageDC VoltageDC VoltageDC VoltageDC VoltageDC VoltageDC VoltageDC VoltageDC	✓ 0 ✓ 0 ✓ 0 ✓ 0 ✓ 0 ✓ 0 ✓ 0 ✓ 0	0 0 0 0 0	1896 1896 1896 1896 1895	-7070 -7117 -7228 -7247 -6965	

There are three tab pages in this dialog. The **General** page is displayed in the above screen shot. If you click **Alarm** tab the following page will appear:

eral Alarm W	ViFi Settings				
			Channel Alam	n Settings:	
Channel #	Enabled	Low Alarm	High Alarm	Unit	
1[20V]		-670.176	-670.176	mV	
2 [20V]	✓	-541.085	-412.299	mV	
3 [20V]		-672.007	-672.007	mV	
4 [20V]		-672.313	-672.313	mV	
5 [20V]		-668.650	-668.650	mV	
6 [20V]		-672.618	-672.618	mV	
7[20V]		-669.566	-669.566	mV	
8 [20V]		-669.871	-669.871	mV	

If you click **WIFI Settings** tab the following page will appear:

		Logge	r Configuration PRE	CISE-LOG PL-VW (S/N: 060700600020
General Alarm	WiFi Settings			
Wifi Mode	Server Mode		▼ Save W	IFI Settings
Device IP/Por	t	Wifi Access Point		Server Mode Properties
Device IP	Address:	SSID:	Security:	Logger Password:
192.168.0.1	116 I	skylow	WPA2PSK 🗸	*****
Port:		Password:	Encryption:	Re-enter Password:
5678 🜲			AES 🗸	
		Reenter Password	:	
			Show	Show

The following fields are for editing:

Description:

Description specifies the information about the logging session with a maximum of 30 characters. It will be the default Title section of the plot in the plot view.

Sampling Interval:

This field specifies the time span the logger will wait between two measurements sampling. Valid settings are:

Sampling Interval
1 second to 9 seconds in 1-second increment
10 seconds to 50 seconds in 10-second increment
1 minute to 59 minutes with 1-minute increment
1 hour to 12 hour with 1-hour increment

Making changes to the Sampling Interval will affect Total Time Span fields.

On-Board LED

Check this field to enable the on-board status LED. If the LED is enabled it will flash each time when it samples data to indicate:

- 1. The logging is active if the LED flashes in green.
- 2. The logger is in alarm state if the LED flashes in red.
- 3. The battery will die soon if the LED flashes in amber.

If you do not need LED indication, you can uncheck this field to increase the battery life.

When Memory Full

If you want the logger to stop logging when the memory is full select **Stop logging**. If you want the logger to continue logging and overwrite the oldest data with the new data (FIFO), you choose **Continue logging**.

Time to Start & Time to End

These two fields specify the desired time the logger will start logging data and the time to stop logging data.

Making changes to the Time to Start/End will affect Total Time Span fields mentioned later.

If you have selected the **Continue logging** field, when the memory is full, both start time and end time will move forward accordingly.

Total Time Span

These fields are an alternate way to specify the total logging time from the start time you specified above.

Changes made on these fields will affect **Time to End** field.

Channel Settings:

Enabled

Check this field to enable this channel for logging.

Channel Range

This field specifies the measurement range the channel will use. Different channel types have different input range selections. Please refer to **Channels and Sensor Connections** chapter for details.

Description

This field specifies the name or the description of the channel (maximum of 30 characters).

Equation

This field specifies the equation used for the channel. Different channel ranges have different default equations. Please refer to **Channels and Sensor Connections** chapter for details.

In order to convert a process signal to a correct measurement value an equation must be applied to the channel.

For example, if you want to use the 0-5 VDC channel to record a battery voltage output, the logger will first convert the battery voltage values to digital values and save them in the memory. Later when all data are downloaded to a computer, SiteView will use equation "VoltageDC" to convert the digital values back to voltage values.

If you are recording the voltage output of a transducer or transmitter and the range of the voltage refers to another measurement unit, you will need to create your own equation for this conversion. For instance, if your CO2 transducer outputs 0 - 5VDC representing 0 - 5000PPM of CO2, the custom equation you need to create looks like this:

```
public double CO2Equation(double Input)
{
```

```
double output;
output = 5000 * Input / 5 ;
return output;
```

```
}
```

For detailed instructions on how to create a custom equation please refer to the **SiteView User's Manual** available for download online.

Cali. Low & Cali. High

These two fields specify the custom calibration values that are used for measurement adjustment.

Cali. Low value specifies the digital value that is over zero when the input value is in the low range value (for 0-5 VDC channel the low range is zero volt). The equation will subtract this value from the original digital value when doing the conversion.

Cali. High value specifies the digital value that is over 65535 when the input value is in the high range value (for 0 - 5VDC channel the high range is 5 volt). The equation will subtract this value from the original digital value when doing the conversion.

The valid range for these two parameters is from -32768 to 32767.

These two parameters for each channel were originally set to zero when the logger was first released.

If you have finished the **Cali. Low** and **Cali. High** calibration instructed in the later chapter, the "Cali. Low" and "Cali. High" values may be readjusted.

Alarm

This table specifies how each channel controls alarm state by:

Alarm Enabled:	Check this field to associate this channel to the alarm state.
----------------	--

Low & High Alarm: These fields define the alarm thresholds. If the reading is beyond these thresholds, the alarm is triggered.

onannoi	Alahin Settings.				
CH#	Alarm Enabled	Low Alarm	High Alarm	Unit	
0		-134.09	110.50	°C	
1		-353.3989	20568.2460	mV	
2		-8.5205	10.0501	mV	
3	 Image: A start of the start of	0.0000	0.0000	mV	
4		0.0000	0.0000	mV	
5		0.0000	0.0000	mV	
6		0.0000	0.0000	mV	
7		0.0000	0.0000	mV	

Channel Alarm Settings:

WIFI Settings:

WIFI Mode:				
Currently, only Wifi Function Disabled and Server Mode are available.				
Wifi Function Disalbed:	disable the wifi function			
Server Mode:	The logger will run as server and a client PC can			
	communicate with it.			

Device IP/Port:

The device's IP address is dynamically assigned by the router. You can specify the port the device will work on.

Wifi Access Point:

This is the wifi network the logger will connect to.

SSID:	The name of the wifi network
Password:	The password of the wifi network
Security:	You can specify the following security: Open, Shared, WPAPSK,
	WPA2PSK.
Encryption:	You can specify the following encryption: None, WEP-H, WEP-A, TKIP,
	AES.

Server Mode Properties:

You can specify a password at the logger level to prevent other clients from accessing logger.

Save WIFI Settings:

Click this button to save wifi related settings to the logger. Then the logger will blink in amber to indicate it is trying to connect to the wifi network. Once it successfully connected to the network it will stop amber blinking and return to the normal operation.

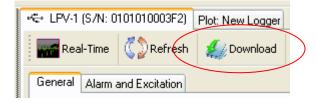
Once you have finished making changes to the available settings, you can click **OK** button to save the settings to the logger. The logger will start to record data from **Time to Start** you have set.

Note: clicking on OK or Apply buttons will erase all existing measurements saved in the logger.

For a detailed description of each available setting please refer to the **SiteView User's Manual** available for download online.

Download Logger

If you are already in logger status tab, clicking on "Download" button will bring up **Download** dialog window:



Downlo	ad Logger PRECISE-LOG PL-V	N S/N: 060700600020	×
Choose where to	download data to:		
Append Data To System — Logger Database Informa		d Data To SiteView File	
Session:	Downloaded Data:		
3/20/2016 11:33:44 AM	Not available		
— Time Span — — — — — — — — — — — — — — — — — — —			
Start Time	3/20/2016 11:33:49 AM		
<			>
End Time	3/20/2016 11:41:49 AM		
<			>
8 Minutes [776 Readings]			
Help		ок	Cancel

Started from Site View 3, data can be downloaded to the system database. Each data logger has a life-time database file associated to it. If you choose to "Append Data to System Database" you can specify End Time and start to download the data.

If you choose to download data to a separate Site View file, the user interface looks like:

Downlo	ad Logger PRECISE	-LOG PL-VW S/N: 060	700600020	×
Choose where to	download data	to:		
Append Data To System	Database	Download Data To Site		
— File Name ———				—
C:\Microedge Instruments Inc	:\SiteView\download\PRE	CISE-LOG PL-VW-060700600	020-2016-03-20-11-42-06.svf	
Browse				
Time Span				_
Start Time	3/20/2016 11:33:49 AM			
<			>	
End Time	3/20/2016 11:41:49 AM			
¢			>	
8 Minutes [776 Readings]				
Help		ок	Cancel	

The fields that you can edit are:

Filename & Browse

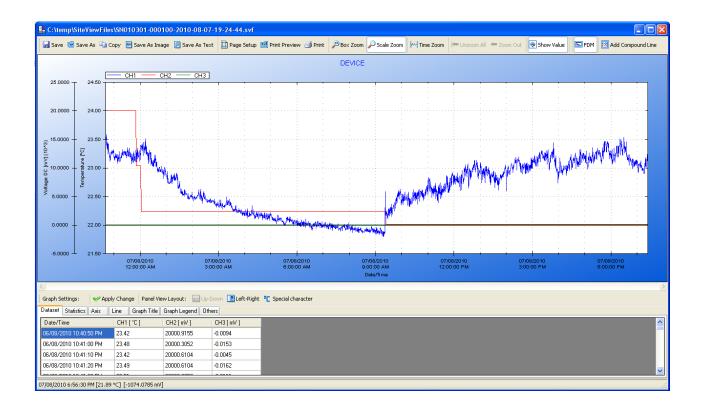
These fields specify the full file path the downloaded data will be saved into. Clicking on **Browse** button will display **File Save** dialog where you can edit or choose a file name.

Start Time & End Time

These fields specify the desired start and end time for the data to be downloaded. You can use either scroll bars or the calendar controls to change the start and end time.

Once you have selected a desired time frame you can click **OK** button to start the download process.

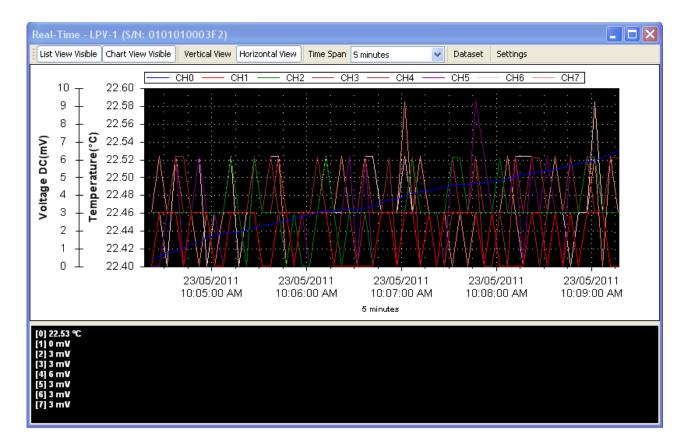
After the download the plot and tabular data will be displayed (If **Display plot after download** was not checked the plot will not display):



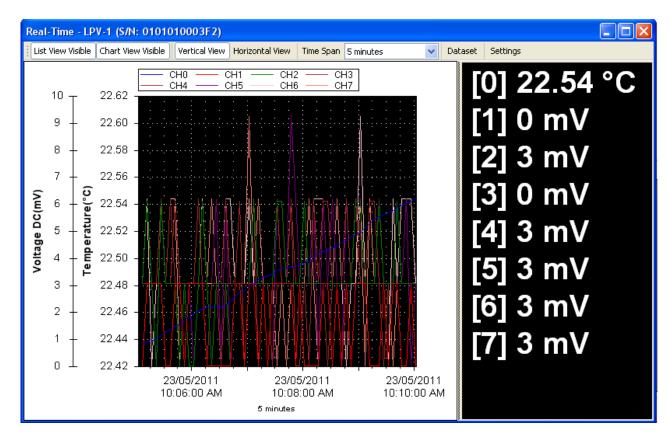
Real-Time Display

SiteView can view the real-time measurements while the logger is still logging data. The realtime display shows the list of the latest channel real-time measurements, as well as the trend chart of all channel real-time measurements for the past given period of time from the current time.

To open real-time view, if the logger has been contacted and the status of the logger is displayed, click on **Real-Time** tool bar button. The following real-time dialog appears:



Real-Time in Horizontal View



Real-Time In Vertical View

Tool bar buttons:

List View Visible

Click to show/hide the list view panel.

Chart View Visible

Click to show/hide the chart view panel.

Vertical View

Click to display the chart and list views vertically.

Horizontal View

Click to display the chart and list views horizontally.

Time Span

This field allows changing the time span for the chart view. Available settings are:

5 minutes	~
1 minute	
2 minutes	
5 minutes	
10 minutes	
20 minutes	
30 minutes	
1 hour	
2 hours	
5 hours	
12 hours	
1 day	
2 days	
5 days	
10 days	
1 month	

Dataset

Click to display the tabular view of the recorded measurements illustrated below:

Time	CH1 (°C)	CH2 (mV)	CH3 (mV)	CH4 (mV)	CH5 (mV)	CH6 (mV)	CH7 (mV)	CH8 (mV)
21/08/2010 9:57:45 PM	23.94	76.9055	76.9055	76.9055	76.9055	77.2107	77.2107	77.5158
21/08/2010 9:57:50 PM	23.93	76.2951	76.6003	76.2951	76.6003	76.6003	76.9055	76.9055
21/08/2010 9:57:55 PM	23.91	76.6003	76.6003	76.6003	76.6003	76.9055	77.5158	76.9055
21/08/2010 9:58:00 PM	23.90	76.6003	76.9055	76.2951	77.2107	77.2107	77.2107	77.2107
21/08/2010 9:58:05 PM	23.91	76.6003	76.6003	76.9055	77.2107	76.6003	75.9899	76.2951
21/08/2010 9:58:10 PM	23.92	76.9055	76.9055	77.2107	76.6003	76.9055	76.6003	76.9055
21/08/2010 9:58:15 PM	23.94	76.6003	76.2951	77.2107	77.2107	76.9055	76.6003	76.9055
21/08/2010 9:58:20 PM	23.93	77.2107	76.2951	76.2951	76.9055	76.9055	77.2107	77.2107
21/08/2010 9:58:25 PM	23.94	76.6003	76.2951	76.6003	77.2107	76.9055	76.9055	76.2951
21/08/2010 9:58:30 PM	23.94	76.2951	76.6003	76.9055	77.2107	77.5158	76.9055	77.2107
21/08/2010 9:58:35 PM	23.94	76.6003	76.2951	76.9055	76.9055	76.9055	76.6003	76.9055

Settings

Click to display more properties illustrated below:

Real-Time Settings								
Line Properties		A	xis Properties					
Channel # Visible Wi	dth Color		Name	Visible	Auto Scale	Min	Nax	
0 🗹 3	~		Celsius (°C)	 Image: A set of the set of the	~	0	50	
1 🗹 1	~		MilliVolt (mV)	 Image: A set of the set of the	~	0	10	
2 🗹 1	*							
3 🗹 1	×							
4 🗹 1	×							
5 🗹 1	~							
6 🗹 1	~	_		_		_	_	
7 🗹 1	~		List Properties	s				
			🔽 Channe	l Index V	isible			
				indon i	101010			
			📃 Channe	l Descrip	tion Visible			
			🗹 Apply C	hannel U	olor I o List			
	_							
Help							ОК	Cancel

For detailed instructions on how to change real-time view settings please refer to **SiteView Instruction Manual** available for download online.

Calibrate a Channel

SiteView software provides two-point calibration for most of the loggers.

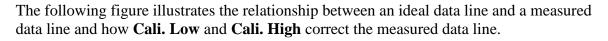
Understand Cali. Low & Cali. High

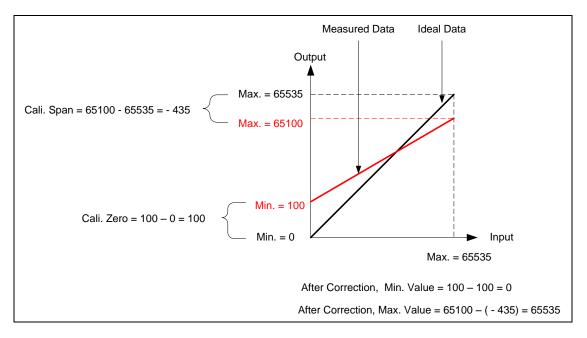
In the logger status page, there are two properties for each listed channel called **Cali. Low** and **Cali. High**. These two fields specify the calibration values that are used for measurement adjustment.

Cali. Low value specifies the digital value that is over zero when the input value is the lowest value (for 0 - 5 VDC channel the lowest value is zero volt). For instance, if you apply zero volt input and the logger measured 100 as the digital value, then **Cali. Low** should be 100 digits. The equation entity will subtract this value when resolving the correct lowest digital value.

Cali. High value specifies the digital value that is over 65535 when the input value is the highest value (for 0 - 5VDC channel the high range is 5 volt). For instance, if you apply 5 volt voltage to the channel and the logger measured 65100 as the digital value. Then **Cali. High** is "- 435" (calculated from 65100 – 65535). The equation entity will subtract this value (-435) from the digital value when resolving the highest digital value.

The valid range for these two parameters is from -32768 to 32767.

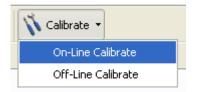




Decide On-Line or Off-Line Calibration

If the source signal like voltage or current can be connected to the logger while the logger is connecting to the computer, you can calibrate the logger on-line. If the source signal like a temperature or relative humidity is not available for on-line calibration, you can calibrate the logger off-line after the logger has recorded the low and high point data.

You access On-Line / Off-Line Calibration via Calibrate button on the logger status tool bar.



The following dialog appears:

working cha	procedure car	keep a record	accuracy of the I of the existing	
Select a channe + #1 CH1 + #2 CH2 + #3 CH3 + #4 CH4 + #5 CH5 + #6 CH6 + #7 CH7	I to calibrate on:			
Help		ОК	Canc	el

Select the channel you want to calibrate on and click **OK** button. The calibration dialogs appear as follows:

Channel Calibration V	Vizard - Channel:1	
Step 1: Low Poi	int Calibration	
Based on the equation th	ne channel is using, the range of the channel is: MilliVolt(mV) To 5000 MilliVolt(m)	Ŋ
Please type in the low po	int value of the source input that is connected to the channel:	
Input Low Reference	2 Value	
0	MilliVolt(mV)	
	button to start the calibration. When you see the current reading is stable you on'' button to stop this procedure.	
Start Calibration	Current Reading 3.05 MilliVolt(m)	/)
Click "Next >>" button to	proceed for High Point Calibration.	
Help	Previous Next Cancel	

Channel Calibration V	/izard - Channel:1			×
Step 2: High Po	int Calibration			
Based on the equation th	e channel is using, the input range	of the channel is:		
0	dilliVolt(mV) To 50	00	MilliVolt(mV)	
Please type in the high p	pint value of the source input that is	connected to the ch	hannel:	
Input High Referenc	e Value			
	MilliVolt(mV)			
	utton to start the calibration. When utton to stop this procedure.	you see the current	reading is stable you can	
Start Calibration	Current Reading		MilliVolt(mV)	
Click "Next >>" button to	proceed for the result.			
Help	Previous	Next >>	Cancel	

Channel Calibration Wizard - Channel:1	\mathbf{X}
Step 3: Calibration Result	
Given Parameters: Channel Range 0 MilliVolt(mV) To Input Low Reference Value 0.00 MilliVolt(mV) Calculated Parameters Measured Input Low Digit 40 Calibration Low Value 40	5000 MilliVolt(mV) Input High Reference Value 5000.00 MilliVolt(mV) Measured Input High Digit 59161 Calibration High Value -6374
Save Parameters to the lo	Done Cancel

The above dialogs are for On-Line Calibration.

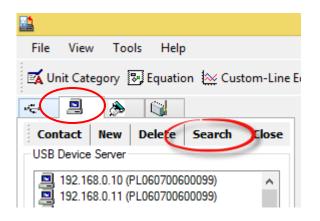
Chan	nel Calibra	tion						
Ste	Step 1. Retrieve reference and actual values:							
1.1	Make sure (the following	channel config	guration is co	rrect:			
	Channel	Cali. Zero	Cali. Span	Equation	Range From	Range To	Unit	
	#1 (5V)	36	900	VoltageDC	0.00	5000.00	MilliVolt (mV)	
	 1.2 Make sure the logger is logging data with the proper sampling interval. Adjust the source input to a value close to 'Range From' parameter in the above table. Take note of this input value as 'Low Referene' Value. Apply the source input to the designated channel for a period of time that can best reflect the accuracy of the source input. 1.3 Adjust the source input to a value close to 'Range To' parameter in the above table. Take note of this input value as 'High Referene' Value. Apply the source input to the designated channel for a period of time that can best reflect the accuracy of the source input. 1.3 Adjust the source input to a value close to 'Range To' parameter in the above table. Take note of this input value as 'High Referene' Value. Apply the source input to the designated channel for a period of time that can best reflect the accuracy of the source input. 1.4 Download the logger first. Open the downloaded file and zoom in to the time frames when the designated channel was applied by the source input. Write down the mean value in the first period of time as 'Real Low' Value and the mean value in the second period of time as 'Real High' Value. 							
Ste	ep 2. Cali	brate cha	nnel:					
2.1	Fill out the	following fiel	ds with the pa	rameters retri	eved in step 1.			
2.2	Click "Calit	orate" button	to calculate ti	he calibration	values and say	ve them back t	o the logger.	
	Low Reference	ce Value: mV	Real Low	w Value: mV	High	Reference Value mV	e: Re	al High Value: mV
	Help						Calibrate	Close

The above dialog is for Off-Line Calibration.

Please refer to Calibrate Logger chapter in SiteView User's Manual for details.

Communicate with VersaLog Wirelessly

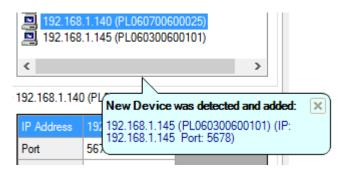
Once you have configured the logger with correct WIFI propertied, the logger will register with the WIFI network. To add the logger to the USB Device Server tab, click "Search" button:



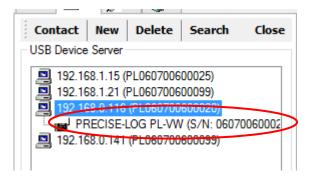
Then click "OK" button to continue.

SiteView - Warning	
The system will Ping all devices that are connected to the LAN. If a returned device is Site USB Device Server or Precise-Log WIFI data logger, the device will be added to the list. If you still can't find the device you may try 'Tools ->Find Devices in LAN' menu. It may take a minute or two to get the responses from devices depending on condition of the network.	
Click OK to continue.	
OK Cancel]

SiteView will search for VersaLog data loggers and the found ones will be added to the list automatically



To communicate with the logger, you double click the entry, the logger will show as below:



Then you double click the logger icon to show the status window of the logger.

You can always add a new connection under USB Device Server by clicking "New" button. In the below dialog, fill out the descripiotn, IP address of the logger and leave other sections default. Once the connection was added you can double click it to communicate with the logger.

192.168	.0.120 ×
Description:	
New remote site	
IP Address	
192.168.0.120	
Port:	Packet Size:
5678	2000 Bytes
(1024 to 65535)	(1 - 5000)
Timeout: 5000 Milliseconds (100 - 10000)	Retry: 5 ❤ Times (1 - 10)
Password:	Confirm Password:
•••••	•••••
(4 - 10 characters or numbers)	
Help	OK Cancel

6. Specifications

Common Specifications

Alarm			
Channel Alarms	Two editable alarm thresholds per channel.		
Alarm Indicator	On-board LED lights in red when in alarm state.		
On-board Memory			
Capacity	8 Mega-bytes (4 Mega measurements)		
Data Retention	Over 20 years		
Sampling & Logging			
Sampling Interval	1 second to 12 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 (Mini-USB-B) (USB-A-mini USB-B Cable included)		
	WIFI module for W series		
Baud Rate	115200 bps		
Battery			
Power	Built-in 3.6V Lithium Battery.		
Life Cycle	10 years based on 1 minute sampling interval in stand-alone mode.		
Software			
SiteView ^[1]	Configuration, downloading, scheduled downloading, plotting,		
	real-time plotting, custom calibration and custom equation		
Software Requirements	Computer with 1.0 GHZ or faster processor		
	1.0 GB 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.		
WIFI Module ^[2]			
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		

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.
Operating Environment	$-40 \sim +70^{\circ}$ C (-40 to + 158°F), 0 ~ 95 %RH non-condensing.
Clock Accuracy	+/- 1 minute per month
Approvals	CE, FCC

[1]: Sold separately.

[2]: Must be powered by external 5VDC power supply via Mini-USB Port.

Logging Capacity

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

Sampling Interval	Enabled Channel	Logging Capacity
1 second	1	48 days
1 second	2	24 days
1 second	8	6 days