



# **VoltX Series**

4, 8, 12 and 16-Channel Voltage Data Loggers



The new VoltX Series consists of 4, 8, 12 and 16-channel, battery powered, DC voltage data logger with a reading rate of up to 4 Hz. Improvements include the elimination of an interface cable (uses standard USB-A to Micro USB), increased memory for more readings and increased download speed.

This easy-to-use device features an 18 month typical battery life, user replaceable battery and programmable engineering units. The storage medium is non-volatile solid state memory, providing maximum data security even if the battery becomes discharged. To maximize memory capacity, users can enable or disable channels. For easy identification, each channel can be named with up to a ten digit title.

Using the MadgeTech Software, starting, stopping and downloading from the VoltX Series data loggers are simple and easy. Graphical, tabular and statistical data is provided for analysis and data can be viewed in multiple units, using the Engineering Units function. The data can also be automatically exported to Excel® for further calculations.

**Features** 

- Real-time Operation
- **Programmable Engineering Units**
- · 24-bit Readings Provide High Resolution
- · Up to 4 Hz Reading Rate
- Compact
- External Power or User Replaceable **Battery**
- · Pushbutton or Programmable Start Time
- Title Channels

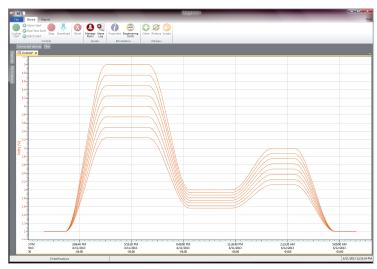
**Benefits** 

· Calibration Certificate included

· Simple Setup and Installation

· Minimal Long-Term Maintenance Long-Term Field Deployment

### MadgeTech 4 Software Features



**Graph View** 

Flag1 (28.02 °C) Cooling Flags

Report Options

**Export to Excel** 

SECT* X SECT*				
_	Time	Time Zone	Delta	
3	1:13:37 PM	-04:00	-00:00:00	
3	1:14:37 PM	-04:00	+00:01:00	
3	1:15:37 PM	-04:00	+000200	
3	1:16:37 PM	-04:00	+00:03:00	
3	1:17:37 PM	-04:00	+00:04:00	
3	1:18:37 PM	-04:00	+00:05:00	
3	1:19:37 PM	-04:00	+00:06:00	
3	1:20:37 PM	-04:00	+00:07:00	
3	1:21:37 PM	-04:00	+00:08:00	
3	1:22:37 PM	-04:00	+00:09:00	
3	1:23:37 PM	-04:00	+00:10:00	
3	1:24:37 PM	-04:00	+00:11:00	
3	1:25:37 PM	-04:00	+00:12:00	

Tahular Data View



At a time Connected
Connected

**Applications** 

- · Low Level Signal Monitoring
- · Medical/Pharmaceutical
- · Battery Studies
- · Power Supply Monitoring
- **Process Plants**
- Environmental Studies
- · Research and Development
- Replace Costly Strip Chart Recorders

- Multiple graph overlay
- **Statistics**
- Digital calibration
- Zoom in/zoom out
- Lethality equations (F0, PU)

· Data annotation

Summary view

· Mean Kinetic Temperature

Full time zone support

Min./Max./Average lines

#### **SPECIFICATIONS**

Specifications are subject to change without notice. Specific warranty remedy limitations apply.

MEASUREMENT					
Input Connection	Removable screv	Removable screw terminals			
Model	160 mV	3.2 V	32 V		
Voltage Range	±160 mV	±3.2 V	-8 V to +32 V		
Voltage Resolution	0.02 mV	0.0004 mV	0.004 mV		
Calibrated Accuracy	±0.032 mV	±0.0032 V	±0.02 V		
Input Impedance	1 ΜΩ	125 kΩ	125 kΩ		
Maximum Voltage between Inputs and Ground	+3 V	+50 V	+50 V		
Analog Conversion Time	150 ms				
Frequency Rejection	60+50 Hz				
Temperature Coefficient	25 ppm/°C				
Specified Accuracy Range	Nominal range @ 25 ℃				
Engineering Units	Native Measurement units can be scaled to display measurement units of another type. This is useful when monitoring voltage outputs from different types of sensors such as temperature, CQ, flow rate and more.				
GENERAL					
Start Modes	Software programmable immediate start or delay start up to six months in advance				
Real Time Recording	May be used with PC to monitor and record data in real time				
Memory (all channels enabled)	,		nannel channel		

LEDs       1 per channel and 2 status LEDs         Reading Rate       4 Hz up to 1 reading every 24 hours         Calibration       Digital calibration through software         Calibration Date       Automatically recorded within device         Battery Type       9 V lithium battery includeduser replaceable         Battery Life       18 months typical         Data Format       Date and time stamped V, mV, μV, engineering units specified through software         Time Accuracy       ±1 minute/month         Computer Interface       USB-A to micro USB cable (included); 460,800 baud         Operating System Compatibility       Windows XP SP3 or later         Software Compatibility       Standard Software version 4.2.19.0 or later         Secure Software version 4.2.18.0 or later       Secure Software version 4.2.19.0 or later         Operating Environment       -20 °C to +60 °C (-4 °F to +140 °F),         Operating Environment       4-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm)         8-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm)         12-channel: 2.70 in x 7.25 in x 1.25 in x 1.68 in (65.6 mm x 184.2 mm x 42.7 mm)         16-channel: 2.70 in x 7.25 in x 2.14 in (65.6 mm x 184.2 mm x 54.4 mm)         Material       Black anodized aluminum         4-channel: 13 oz (368 g)       8-channel: 13 oz (368 g) <t< th=""><th></th><th></th></t<>			
Calibration Digital calibration through software Calibration Date Automatically recorded within device Battery Type 9 V lithium battery includedμser replaceable Battery Life 18 months typical  Date and time stamped V, mV, μV, engineering units specified through software  Time Accuracy ±1 minute/month  Computer Interface USB-A to micro USB cable (included); 460,800 baud  Operating System Compatibility  Software Standard Software version 4.2.19.0 or later  Secure Software version 4.2.18.0 or later  Operating -20 °C to +60 °C (-4 °F to +140 °F), 0 %RH to 95 %RH non-condensing  4-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm) 8-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 42.7 mm) 16-channel: 2.70 in x 7.25 in x 2.14 in (65.6 mm x 184.2 mm x 54.4 mm)  Material Black anodized aluminum  4-channel: 13 oz (368 g) 8-channel: 13 oz (368 g) 8-channel: 20 oz (580 g) 12-channel: 20 oz (580 g) 16-channel: 28 oz (800 g)	LEDs	1 per channel and 2 status LEDs	
Calibration Date  Automatically recorded within device  Battery Type  9 V lithium battery includeduser replaceable  Battery Life  18 months typical  Date and time stamped V, mV, µV, engineering units specified through software  Time Accuracy  ±1 minute/month  Computer Interface  USB-A to micro USB cable (included); 460,800 baud  Operating System Compatibility  Software  Compatibility  Software  Compatibility  Secure Software version 4.2.19.0 or later  Secure Software version 4.2.18.0 or later  Operating  = -20 °C to +60 °C (-4 °F to +140 °F), 0 %RH to 95 %RH non-condensing  4-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm) 8-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 42.7 mm) 16-channel: 2.70 in x 7.25 in x 2.14 in (65.6 mm x 184.2 mm x 54.4 mm)  Material  Black anodized aluminum  4-channel: 13 oz (368 g) 8-channel: 13 oz (368 g) 12-channel: 28 oz (800 g)	Reading Rate	4 Hz up to 1 reading every 24 hours	
Battery Type 9 V lithium battery includedμser replaceable Battery Life 18 months typical  Data Format Date and time stamped V, mV, μV, engineering units specified through software  Time Accuracy ±1 minute/month  Computer Interface USB-A to micro USB cable (included); 460,800 baud  Operating System Compatibility Windows XP SP3 or later  Software Standard Software version 4.2.19.0 or later  Secure Software version 4.2.18.0 or later  Operating -20 °C to +60 °C (-4 °F to +140 °F), Environment 0 %RH to 95 %RH non-condensing  4-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm) 8-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 42.7 mm) 16-channel: 2.70 in x 7.25 in x 2.14 in (65.6 mm x 184.2 mm x 54.4 mm)  Material Black anodized aluminum  4-channel: 13 oz (368 g) 8-channel: 13 oz (368 g) 12-channel: 20 oz (580 g) 16-channel: 28 oz (800 g)	Calibration	Digital calibration through software	
Battery Life  Data Format  Date and time stamped V, mV, μV, engineering units specified through software  Time Accuracy  ±1 minute/month  Computer Interface  USB-A to micro USB cable (included); 460,800 baud  Operating System Compatibility  Software  Compatibility  Secure Software version 4.2.19.0 or later  Secure Software version 4.2.18.0 or later  Operating Environment  Dimensions  Dimensions  Dimensions  12-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm)  8-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 31.0 mm)  12-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 42.7 mm)  16-channel: 2.70 in x 7.25 in x 2.14 in (65.6 mm x 184.2 mm x 54.4 mm)  Material  Black anodized aluminum  4-channel: 13 oz (368 g)  8-channel: 13 oz (368 g)  12-channel: 20 oz (580 g)  16-channel: 28 oz (800 g)	Calibration Date	Automatically recorded within device	
Data FormatDate and time stamped V, mV, μV, engineering units specified through softwareTime Accuracy±1 minute/monthComputer InterfaceUSB-A to micro USB cable (included); 460,800 baudOperating System CompatibilityWindows XP SP3 or laterSoftwareStandard Software version 4.2.19.0 or laterCompatibilitySecure Software version 4.2.18.0 or laterOperating Environment-20 °C to +60 °C (-4 °F to +140 °F), 0 %RH to 95 %RH non-condensing4-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm)8-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 31.0 mm)12-channel: 2.70 in x 7.25 in x 2.14 in (65.6 mm x 184.2 mm x 54.4 mm)MaterialBlack anodized aluminumWeight4-channel: 13 oz (368 g)12-channel: 20 oz (580 g)16-channel: 28 oz (800 g)	Battery Type	9 V lithium battery includeduser replaceable	
Data Format       specified through software         Time Accuracy       ±1 minute/month         Computer Interface       USB-A to micro USB cable (included); 460,800 baud         Operating System Compatibility       Windows XP SP3 or later         Software Compatibility       Standard Software version 4.2.19.0 or later         Operating Environment       -20 °C to +60 °C (-4 °F to +140 °F), 0 %RH to 95 %RH non-condensing         4-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm)       (65.6 mm x 184.2 mm x 31.0 mm)         8-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 42.7 mm)       (65.6 mm x 184.2 mm x 54.4 mm)         Material       Black anodized aluminum         Weight       4-channel: 13 oz (368 g) (368 g) (12-channel: 20 oz (580 g) (16-channel: 28 oz (800 g))	Battery Life	18 months typical	
Computer Interface         USB-A to micro USB cable (included); 460,800 baud           Operating System Compatibility         Windows XP SP3 or later           Software Compatibility         Standard Software version 4.2.19.0 or later           Operating Environment         -20 °C to +60 °C (-4 °F to +140 °F), 0 %RH to 95 %RH non-condensing           4-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm) 8-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm) 12-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 42.7 mm) 16-channel: 2.70 in x 7.25 in x 2.14 in (65.6 mm x 184.2 mm x 54.4 mm)           Material         Black anodized aluminum           Weight         4-channel: 13 oz (368 g) 8-channel: 20 oz (580 g) 12-channel: 28 oz (800 g)	Data Format	, , , , , , ,	
Operating System Compatibility         Windows XP SP3 or later           Software Compatibility         Standard Software version 4.2.19.0 or later           Operating Environment         -20 °C to +60 °C (-4 °F to +140 °F), 0 %RH to 95 %RH non-condensing           4-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm) 8-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm) 12-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 42.7 mm) 16-channel: 2.70 in x 7.25 in x 2.14 in (65.6 mm x 184.2 mm x 54.4 mm)           Material         Black anodized aluminum           Weight         8-channel: 13 oz (368 g) 12-channel: 20 oz (580 g) 16-channel: 28 oz (800 g)	Time Accuracy	±1 minute/month	
Compatibility         Windows XP SP3 or later           Software         Standard Software version 4.2.19.0 or later           Compatibility         Secure Software version 4.2.18.0 or later           Operating         -20 °C to +60 °C (-4 °F to +140 °F),           Environment         0 %RH to 95 %RH non-condensing           4-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm)           8-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 31.0 mm)           12-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 42.7 mm)           16-channel: 2.70 in x 7.25 in x 2.14 in (65.6 mm x 184.2 mm x 54.4 mm)           Material         Black anodized aluminum           Weight         4-channel: 13 oz (368 g)           8-channel: 20 oz (580 g)         12-channel: 20 oz (580 g)           16-channel: 28 oz (800 g)	Computer Interface	USB-A to micro USB cable (included); 460,800 baud	
Compatibility         Secure Software version 4.2.18.0 or later           Operating Environment         -20 °C to +60 °C (-4 °F to +140 °F), 0 %RH to 95 %RH non-condensing           4-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm)           8-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm)           12-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 42.7 mm)           16-channel: 2.70 in x 7.25 in x 2.14 in (65.6 mm x 184.2 mm x 54.4 mm)           Material         Black anodized aluminum           Weight         4-channel: 13 oz (368 g) (368 g) (12-channel: 20 oz (580 g) (16-channel: 28 oz (800 g))		Windows XP SP3 or later	
Environment  0 %RH to 95 %RH non-condensing  4-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm) 8-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm) 12-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 42.7 mm) 16-channel: 2.70 in x 7.25 in x 2.14 in (65.6 mm x 184.2 mm x 54.4 mm)  Material  Black anodized aluminum  4-channel: 13 oz (368 g) 8-channel: 13 oz (368 g) 12-channel: 20 oz (580 g) 16-channel: 28 oz (800 g)		Starraging Software Version MELESTO STRATE	
(65.6 mm x 184.2 mm x 31.0 mm) 8-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm) 12-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 42.7 mm) 16-channel: 2.70 in x 7.25 in x 2.14 in (65.6 mm x 184.2 mm x 54.4 mm)  Material  Black anodized aluminum  4-channel: 13 oz (368 g) 8-channel: 13 oz (368 g) 12-channel: 20 oz (580 g) 16-channel: 28 oz (800 g)		,,,	
4-channel: 13 oz (368 g) 8-channel: 13 oz (368 g) 12-channel: 20 oz (580 g) 16-channel: 28 oz (800 g)	Dimensions	(65.6 mm x 184.2 mm x 31.0 mm) 8-channel: 2.70 in x 7.25 in x 1.22 in (65.6 mm x 184.2 mm x 31.0 mm) 12-channel: 2.70 in x 7.25 in x 1.68 in (65.6 mm x 184.2 mm x 42.7 mm) 16-channel: 2.70 in x 7.25 in x 2.14 in	
Weight  8-channel: 13 oz (368 g)  12-channel: 20 oz (580 g)  16-channel: 28 oz (800 g)	Material	Black anodized aluminum	
Approvals CE	Weight	8-channel: 13 oz (368 g) 12-channel: 20 oz (580 g)	
	Approvals	CE	

BATTERY WARNING:BATTERY MAY LEAK, FLAME OR EXPLODE IF DISASSEMBLED, SHORTED, CHARGED, CONNECTED TOGETHER, MIXED WITH USED OR OTHER BATTERIES, EXPOSED TO FIRE OR HIGH TEMPERATURE. DISCARD USED BATTERY PROMPTLY. KEEP OUT OF REACH OF CHILDREN.

## **Ordering Information**

VoltX4-160mV	PN 902179-00	4-Channel ±160 mV Voltage Data Logger, USB-A to micro USB cable, universal power adapter
VoltX4-3.2V	PN 902183-00	4-Channel ±3.2 V Voltage Data Logger, USB-A to micro USB cable, universal power adapter
VoltX4-32V	PN 902187-00	4-Channel -8 V to +32 V Voltage Data Logger, USB-A to micro USB cable, universal power adapter
VoltX8-160mV	PN 902180-00	8-Channel ±160 mV Voltage Data Logger, USB-A to micro USB cable, universal power adapter
VoltX8-3.2V	PN 902184-00	8-Channel ±3.2 V Voltage Data Logger, USB-A to micro USB cable, universal power adapter
VoltX8-32V	PN 902188-00	8-Channel -8 V to +32 V Voltage Data Logger, USB-A to micro USB cable, universal power adapter
VoltX12-160mV	PN 902181-00	12-Channel ±160 mV Voltage Data Logger, USB-A to micro USB cable, universal power adapter
VoltX12-3.2V	PN 902185-00	12-Channel ±3.2 V Voltage Data Logger, USB-A to micro USB cable, universal power adapter
VoltX12-32V	PN 902189-00	12-Channel -8 V to +32 V Voltage Data Logger, USB-A to micro USB cable, universal power adapted
VoltX16-160mV	PN 902182-00	16-Channel ±160 mV Voltage Data Logger, USB-A to micro USB cable, universal power adapter
VoltX16-3.2V	PN 902186-00	16-Channel ±3.2 V Voltage Data Logger, USB-A to micro USB cable, universal power adapter
VoltX16-32V	PN 902190-00	16-Channel -8 V to +32 V Voltage Data Logger, USB-A to micro USB cable, universal power adapted
U9VL-J	PN 901804-00	Replacement battery for VoltX Series