

## > The Veriteq 1000/1400 Series Temperature Data Recorders



Veriteq's 1000/1400 series data recorder includes the VL-series for regulated environments and the SP-series for non FDA/GxP industries.

The VL-series of data recorders together with vLog software provides a superior, high accuracy solution for use in FDA/GxP regulated environments by providing tamper-proof files and encrypted electronic records that meet 21 CFR Part 11 requirements.

The SP-series provides a compact, easily-deployable, highly accurate measurement and recording device for use in non FDA/GxP regulated industries. Coupled with Spectrum software for downloading, displaying, analyzing and reporting of recorded environmental data, the SP-series was designed for use in non FDA/GxP regulated environments.

Optional browser-based viewLinc software provides 24/7 multi-stage alarm notification and remote monitoring for both the VL and SP-series of data recorders.

### Additional system features include:

- > Industry-leading precision and accuracy
- > Adjustable time based recording
- > Printed reports for any time period
- > Extended long-life 10-year battery
- > Validation and continuous monitoring with the same tool
- > Two year limited warranty
- > Superior alternative to chart recorders and hard-wired systems
- > NIST-traceable, A2LA accredited calibration available
- > Utilization of Steinhart-Hart coefficients stored in each data recorder for high system accuracy

### GENERAL

Size	Interfaces	Mounting	PC Software	Internal Clock	Electromagnetic Compatibility	Power Source
71x53x20mm (2.8 x 2.1 x 0.8"), 65g (2.4 oz.)	RS-232 serial, USB, Ethernet, WiFi network interface available	Magnetic strips, 3M Dual Lock™ fasteners	Graphing & Reporting Software Spectrum for SP-series vLog for VL-series viewLinc for continuous monitoring & alarming	Accuracy +/- 1 min./month @ 0°C to +50°C (+32°F to +122°F)	FCC Part 15 and CE	Internal 10-year lithium battery  (Battery life specified with sample interval of 1 min. or longer)



Product Part Number Legend: Guide for reading the product tables and selecting the most appropriate model for your application.

XX - 1000 - XXX

Series Type: VL (Validatable) or SP

Series Number: Series 1000: 2 Channel,  
Series 1400: 4 Channel

Total Number of Channels: 2/4

Number of External Channels: 1/2/4

External Channel Temperature Range:

Please refer to the Temperature Range and Accuracy table below for external probe options.

## TEMPERATURE RANGE & ACCURACY

Series	Sensor	Calibrated Measurement Range	Operating Range	One Year Accuracy*	Resolution
1000-2XX 1400-44X	Internal	-25°C to +70°C (-13°F to +158°F)	-40°C to +85°C (-40°F to +185°F) 0%RH to 100%RH non-condensing	+/-0.15°C over +20°C to +30°C (+/-0.27°F over +68°F to +86°F) +/-0.25°C over -25°C to +70°C (+/-0.45°F over -13°F to +158°F)	0.02°C at +25°C (0.04°F at +77°F)
	"N" Range External Probe	-25°C to +70°C (-13°F to +158°F)	-40°C to +95°C (-40°F to +203°F)	+/-0.25°C over -25°C to +70°C (+/-0.45°F over -13°F to +158°F)	0.02°C at +25°C (0.04°F at +77°F)
	"L" Range External Probe	-50°C to +10°C (-58°F to +50°F)	-60°C to +95°C (-76°F to +203°F)	+/-0.5°C over -50°C to +10°C (+/-0.9°F over -58°F to +50°F)	0.02°C at -20°C (0.04°F at -4°F)
	"V" Range External Probe	-90°C to -40°C (-130°F to -40°F)	-95°C to +95°C (-139°F to +203°F)	+/-0.5°C over -90°C to -40°C (+/-0.9°F over -130°F to -40°F)	0.02°C at -80°C (0.04°F at -112°F)
	"Y" Range External Probe YSI Series 400 probe or equivalent	0°C to +70°C (+32°F to +158°F)	0°C to +70°C (+32°F to +158°F)	+/-0.25°C over 0°C to +70°C (+/-0.45°F over +32°F to +158°F)	0.02°C at +25°C (0.04°F at +77°F)
1000-LT	Internal	-40°C to +40°C (-40°F to +104°F)	-40°C to +85°C (-40°F to +185°F)	+/-0.5°C over -40°C to +40°C (+/-0.9°F over -40°F to -40°F)	0.02°C at 0°C (0.04°F at +32°F)
	"L" Range External Probe	-40°C to +40°C (-40°F to +104°F)	-60°C to +95°C (-76°F to +203°F)	+/-0.5°C over -40°C to +40°C (+/-0.9°F over -40°F to -40°F)	0.02°C at 0°C (0.04°F at +32°F)

\*Specification for external channels is for a probe calibrated to the specific channel of the data logger and with the data logger at -25°C to +70°C (-13°F to +122°F)



# VERITEQ

Superior Temperature & Humidity Monitoring



VL-1000-21N



VL-1000-22N



VL-1400-44N

### INTERNAL TEMPERATURE SENSOR

Series	Sensor Type
1000-21X 1000-LT	Precision-tolerance epoxy-encapsulated NTC thermistor

### MEMORY

Series	Data Sample Capacity	Memory Type	Memory Modes	Sampling Rates
1000-2XX 1000-LT	26,900 12-bit samples	Non-volatile EEROM	User-selectable. Wrap (FIFO) or stop when memory is full. User selectable start time. User selectable stop time (VL series only).	User-selectable (in 10 second intervals) from one every 10 seconds to once a day. <small>(Battery life specified with sample interval of 1 min. or longer)</small>
1400-44X	70,300 12-bit samples			



**RECORDING SPAN: 1000 - 2XX**

Sample Interval	Number of Channels Enabled	
	1	2
10 Seconds	3.1 Days	1.6 Days
1 Minute	18.7 Days	9.4 Days
5 Minutes	3.1 Months	1.5 Months
15 Minutes	9.3 Months	4.6 Months
1 Hour	3.1 Years	1.5 Years

**RECORDING SPAN: 1400 - 44X**

Sample Interval	Number of Channels Enabled			
	1	2	3	4
10 Seconds	8.1 Days	4.1 Days	2.7 Days	2.0 Days
1 Minute	1.6 Months	24.4 Days	16.3 Days	12.2 Days
5 Minutes	8.1 Months	4.0 Months	2.7 Months	2.0 Months
15 Minutes	2.0 Years	1 Year	8.1 Months	6.1 Months
1 Hour	8.0 Years	4.0 Years	2.6 Years	2.0 Years

**EPT SERIES TEMPERATURE PROBES**

Series	Sensor	Operating Range	Connector Color Code	Sensor Tip	Probe Length	Cable Construction
EPT-23N-XXN	"N" Range External Probe	-40°C to +95°C (-40°F to +203°F)	Black	Stainless Steel, Diameter: 3.2mm (1/8") Length: 38mm (1.5")	"XX" denotes the length of the probe in feet. 3m (10') and 7.6m (25') lengths available	2mm (0.07") Diameter, Teflon coated cable
EPT-23N-XXL	"L" Range External Probe	-60°C to +95°C (-76°F to +203°F)	Green			
EPT-23N-XXV	"V" Range External Probe	-95°C to +95°C (-139°F to +203°F)	Blue			

**TEMPERATURE PROBE ACCESSORIES:**

EPT-TDB: Thermal Dampening Block, for use in refrigerators and freezers. Simulates a glycol bottle to reduce viewLinc alarms generated by opening and closing a door

EPT-YSI-DL: Adapter to connect Standard YSI Series 400 temperature probes to Veriteq Data Loggers for use with data recorders with "Y" range external probe(s)