

Vaisala Veriteq Temperature Data Recorder Series 1000/1400



Applications

Ideal for Monitoring & Validation of:

- Refrigerators & Freezers (to -90 °C)
- Incubators
- Stability Chambers
- Warehouses
- Ambient conditions

Features/Benefits

- Industry-leading precision and accuracy - to 0.15 °C
- Ideal for low temperature environments - to -25 °C
- Printed reports for any time period
- 10-year battery
- Validation and continuous monitoring with the same model
- Two year limited warranty
- Superior alternative to chart recorders and hard-wired systems
- NIST-traceable, A2LA accredited calibration
- Timebase calibrated over the operating temperature range
- Adjustable time based recording
- Snap-in logger cradle for easy network connectivity
- Three probe options give high accuracy - from -90 °C to +70 °C

The 1000/1400 series temperature data recorders include the VL-series for regulated environments and the SP-series for non FDA/GxP regulated industries. The VL-series of data recorders, together with vLog VL software provide a superior, high accuracy solution for use in FDA/GxP regulated environments by providing tamperproof files and electronic records that meet 21 CFR Part 11 requirements. The SP-series provides a compact, easily deployable, highly

accurate measurement and recording device. Coupled with vLog SP 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.

Technical Data

General

Size	85 x 59 x 26 mm (3.4 x 2.3 x 1") 76 g (2.7oz)
Interfaces	RS-232 serial, USB, Ethernet, WiFi, PoE network interface available
Mounting	Magnetic strips, 3M Dual Lock™ Fasteners Snap-in connector locks provide secure probe connections
PC Software	Graphing & Reporting Software vLog SP for SP-series vLog VL for VL-series viewLinc for continuous monitoring & alarming OPC Server to add on to existing OPC compatible monitoring systems
Internal Clock	Accuracy ±1 min./month -25 °C to +70 °C (-13 °F to +158 °F)
Electromagnetic Compatibility	FCC Part 15 and CE
Power Source	Internal 10-year lithium battery (Battery life specified with sample interval of 1 min. or longer)
Logger Operating/Storage Range	-40 °C to +85 °C (-40 °F to +185 °F) 0 %RH to 100 %RH non-condensing

Internal Temperature Sensor

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

Memory

Data Sample Capacity	
1000-2XX	48,100 12-bit samples
1400-44X	85,300 12-bit samples
Memory Type	Non-volatile EEPROM
Memory Modes	User selectable: wrap (FIFO) or stop when memory is full. User selectable start time. User selectable stop time (VL series only).
Sampling Rates	User-selectable (in 10 second intervals) from once every 10 seconds to once a day

Recording Span: 1000-2xx

SAMPLE INTERVAL	NUMBER OF CHANNELS ENABLED	
	1	2
10 Seconds	5.5 Days	2.7 Days
1 Minute	1.1 Months	16.7 Days
5 Minutes	5.5 Months	2.7 Months
15 Minutes	1.3 Years	8.3 Months
1 Hour	5.4 Years	2.7 Years



VL-1000-21x



VL-1000-22x

Recording Span: 1400-44x

SAMPLE INTERVAL	NUMBER OF CHANNELS ENABLED			
	1	2	3	4
10 Seconds	9.8 Days	4.9 Days	3.2 Days	2.4 Days
1 Minute	1.9 Months	29.6 Days	19.7 Days	14.8 Days
5 Minutes	9.8 Months	4.9 Months	3.2 Months	2.4 Months
15 Minutes	2.4 Years	1.2 Years	9.8 Months	7.4 Months
1 Hour	9.7 Years	4.8 Years	3.2 Years	2.4 Years



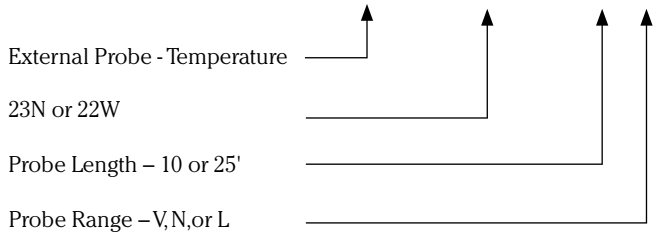
VL-1400-44x

EPT Series Temperature Probes

Sensor Models

"N" Range External Probes	EPT-23N-XXN and EPT-22W-XXN
Operating/Storage Range	-40 °C to +95 °C (-40 °F to +203 °F)
Connector Color Code	Black
"L" Range External Probes	EPT-23N-XXL and EPT-22W-XXL
Operating/Storage Range	-60 °C to +95 °C (-76 °F to +203 °F)
Connector Color Code	Green
"V" Range External Probes	EPT-23N-XXV and EPT-22W-XXV
Operating/Storage Range	-95 °C to +95 °C (-139 °F to +203 °F)
Connector Color Code	Blue

EPT - XXX - XXX



Sensor Tips

EPT-23N-XXX	Stainless Steel Diameter 3.2 mm (1/8") Length 38 mm (1.5")
EPT-22W-XXX (liquid submersible)	Sealed Teflon Tip Diameter 3 mm (0.12") Length 28 mm (1.1")
Probe Lengths	3 m (10') and 7.6 m (25')
Cable Construction	2mm (0.07") Diameter Teflon coated cable

Temperature Probe Accessories

Thermal Dampening Block, for use in refrigerators and freezers, simulates a glycol bottle to reduce viewLinc alarms generated by opening and closing a door.



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 and Accuracy

Internal Sensor

Calibrated	
Measurement Range	-25 °C to +70 °C (-13 °F to +158 °F)
Operating/Storage Range	-40 °C to +85 °C (-40 °F to +185 °F)
Initial Accuracy	0 %RH to 100 %RH non-condensing +/-0.10 °C over +20 °C to +30 °C (+/-0.18 °F over +68 °F to +86 °F) +/-0.15 °C over -25 °C to +70 °C (+/-0.27 °F over -13 °F to +158 °F)
One Year Accuracy	+/-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)
Resolution	0.02 °C at +25 °C (0.04 °F at +77 °F)

External Probes - All Models

"N" RANGE EXTERNAL PROBE

Calibrated	
Measurement Range	-25 °C to +70 °C (-13 °F to +158 °F)
Operating/Storage Range	-40 °C to +95 °C (-40 °F to +203 °F)
Initial Accuracy*	+/-0.10 °C over +20 °C to +30 °C (+/-0.18 °F over +68 °F to +86 °F) +/-0.15 °C over -25 °C to +70 °C (+/-0.27 °F over -13 °F to +158 °F)
One Year Accuracy*	+/-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)
Resolution	0.02 °C at +25 °C (0.04 °F at +77 °F)

"L" RANGE EXTERNAL PROBE

Calibrated	
Measurement Range	-50 °C to +10 °C (-58 °F to +50 °F)
Operating/Storage Range	-60 °C to +95 °C (-76 °F to +203 °F)
Initial Accuracy*	+/-0.15 °C over -50 °C to +10 °C (+/-0.27 °F over -58 °F to +50 °F)
One Year Accuracy*	+/-0.25 °C over -50 °C to +10 °C (+/-0.45 °F over -58 °F to +50 °F)
Resolution	0.02 °C at -20 °C (0.04 °F at -4 °F)

"V" RANGE EXTERNAL PROBE

Calibrated	
Measurement Range	-90 °C to -40 °C (-130 °F to -40 °F)
Operating/Storage Range	-95 °C to +95 °C (-139 °F to +203 °F)
Initial Accuracy*	+/-0.15 °C over -90 °C to -40 °C (+/-0.27 °F over -130 °F to -40 °F)
One Year Accuracy*	+/-0.25 °C over -90 °C to -40 °C (+/-0.45 °F over -130 °F to -40 °F)
Resolution	0.02 °C at -80 °C (0.04 °F at -112 °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 +158 °F)



For more information, visit www.vaisala.com or contact us at sales@vaisala.com

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