

> The Veriteq 2000 Series Temperature & RH Data Recorders



VL-2000-20R



SP-2000-20R

Veriteq's 2000 series data recorders 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 temperature and relative humidity measurement precision and accuracy
- > High accuracy, adjustable time-based digital recording
- > Printed reports for any time period
- > Extended 10-year long-life battery
- > Ability to perform validation and continuous monitoring with the same tool
- > NIST-traceable, A2LA accredited calibration available
- > Superior alternative to chart recorders and hard-wired systems
- > Utilization of Steinhart- Hart coefficients stored in each data recorder for high system accuracy
- > Integrated high-accuracy capacitive thin-film polymer RH sensor
- > Surface calibration of RH sensor across a wide temperature range

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)



INTERNAL SENSORS

Series	Sensor	Calibrated Measurement Range*	Operating Range	One Year Accuracy	Resolution
SP-2000-20R VL-2000-20R	Internal Temperature Sensor	-25°C to +70°C (-13°F to +158°F)	-35°C to +85°C (-31°F to +185°F)	+/-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)
	Internal RH Sensor	45%RH at +10°C (+50°F) 11%RH to 80%RH at +25°C (+77°F) 45%RH at +45°C (+113°F)	0%RH to 100%RH (non-condensing)	+/-2%RH over 10%RH to 90%RH at +20°C to +30°C (+68°F to +86°F) +/-3%RH over 10%RH to 90%RH at -20°C to +70°C (-4°F to +158°F)	0.05%RH
SP-2000-LRH VL-2000-LRH	Internal Temperature Sensor	-25°C to +70°C (-13°F to +158°F)	-35°C to +85°C (-31°F to +185°F)	+/-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)
	Internal RH Sensor	0%RH to 20%RH at +25°C (+77°F)	0%RH to 30%RH	+/-2%RH over 0%RH to 20%RH at +25°C (+77°F)	0.05%RH

*Custom calibration points available upon request including full ICH coverage.

MEMORY

Data Sample Capacity	Memory Type	Memory Modes	Sampling Rates
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 1 every 10 seconds to once a day. (Battery life specified with sample interval of 1 min. or longer)

RECORDING SPAN

Sample Interval	Recording Span
10 Seconds	1.6 Days
1 Minute	9.4 Days
5 Minutes	1.6 Months
15 Minutes	4.6 Months
1 Hour	1.5 Years