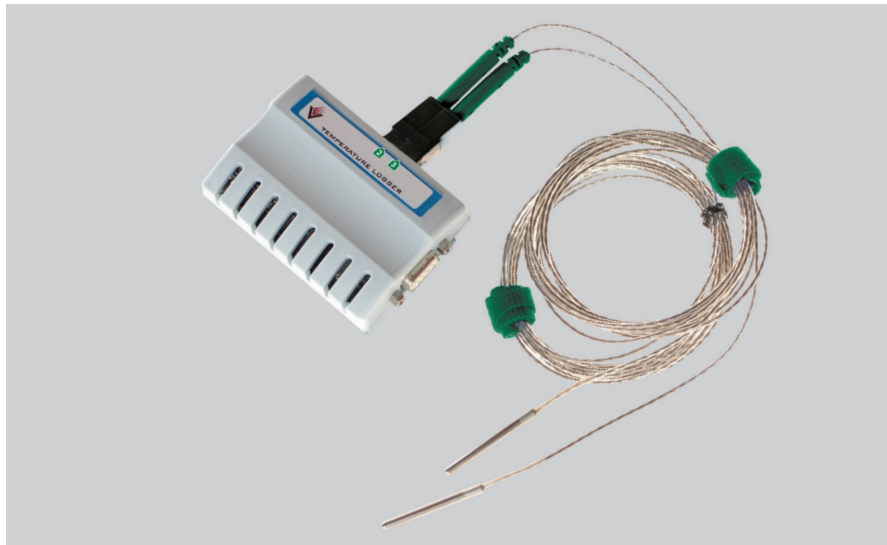


Vaisala DL1200 Low Temperature Data Logger



Applications

- Ideal for in situ cold temperature validation to -55 °C
- Can record with up to 2 external probes calibrated to -55 °C
- Highly accurate for use in GxP low temperature applications

21 CFR Part 11 requirements.

The SP-series of 1200 data recorders provide a compact, easily deployable, measurement and recording device for use in non FDA/GxP regulated industries. The SP recorders are used with Vaisala vLog SP software for downloading, displaying, analyzing and reporting of recorded environmental data.

For applications that require monitoring, alarming and reporting, our viewLinc Continuous Monitoring System combines with both the VL- and SP-series of data recorders to provide 24/7 multi-stage alarm notification, remote, browser-based monitoring, and customizable reporting in an easy to deploy, easy to use solution.

Features / Benefits

- Equipped with internal temperature sensor, onboard memory and 10-year battery
- Memory at the point of measurement ensures continuous, 21 CFR Part 11-compliant records
- Renders data immune to power failures and network interruptions
- NIST-traceable, A2LA accredited calibration
- Adjustable recording intervals (every minute, every hour, etc) with multi-year data recording capacity
- High-stability temperature sensors provide in-calibration performance between calibration intervals up to a year
- External inputs for remote temperature probes

The 1200 series temperature data loggers include the VL-series for regulated environments and the SP-series for non FDA/GxP industries. The VL-series of data recorders, together with vLog VL software provide a superior, high accuracy solution for validation studies and testing applications in FDA/GxP regulated environments. Hardware is robust and tamper-proof and vLog VL provides electronic records that meet

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, Power over Ethernet
Mounting	Magnetic strips, 3M Dual Lock™ Fasteners; Snap-in connector locks provide secure probe connections
Software	vLog SP for SP-series vLog VL for VL-series viewLinc CMS for SP/VL-series OPC server for data recorder interoperability with OPC-compatible monitoring systems
Internal Clock Accuracy	+/-1 min./month over -55 °C to +40 °C (-67 °F to +104°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)

Technical Data

Measurement Accuracy

INTERNAL SENSOR & EXTERNAL PROBE

Calibrated Measuring Range	-55 °C to +40 °C (-67 °F to +104 °F)
Standard Calibration points **	-55°C, -40°C, -20°C, -0°C, +20°C, +40°C (-67°F, -40°F, -4°F, +32°F, +68°F, 104°F)
Resolution	0.02 °C at -20 °C (0.04 °F at -4 °F)
Initial Accuracy*	+/-0.3 °C over -55 °C to +40 °C +/-0.54 °F over -67 °F to +104 °F
One year Accuracy*	+/-0.42 °C over -55 °C to +40 °C (+/-0.76 °F over -67 °F to 104 °F)
Operating/Storage Range	-60 °C to +85 °C (-76 °F to +185 °F)

*The accuracy specification for external channels is for a probe calibrated to the specific channel of the data logger and with the data logger at -55 °C to +40 °C (-67 °F to +104 °F)

**Customized calibration points are available, from -60°C to +45°C (-76°F to +113°F)

Internal Temperature Sensor

Type of Sensor	Precision-tolerance epoxy-encapsulated NTC thermistor
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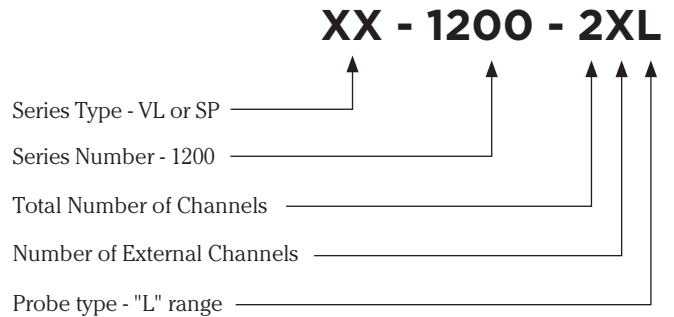
External Temperature Sensor

Sensor Type	L Range Probes
Sensor Tips	Stainless Steel Diameter 3.2 mm (1/8"), Length 38 mm (1.5") Sealed Teflon Tip (Waterproof) Diameter: 3mm (0.12"), Length 28 mm (1.1")
Cable construction	2 mm (0.07") Diameter, Teflon coated cable
Probe length	7.6 m (25')
Connector Color Code	Green

Recording Span: External Channels

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

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



The 1200 data recorder comes in the following models:

SP or VL 1200-21L	One internal temperature channel and one external temperature channel.
SP or VL 1200-22L	Two External temperature channels.

Temperature Probe Accessories

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

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