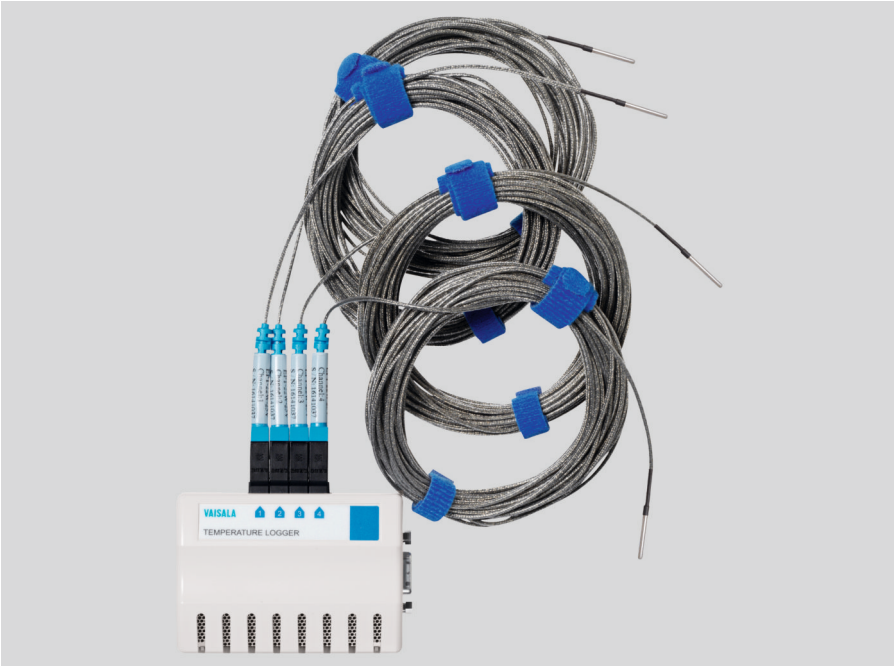
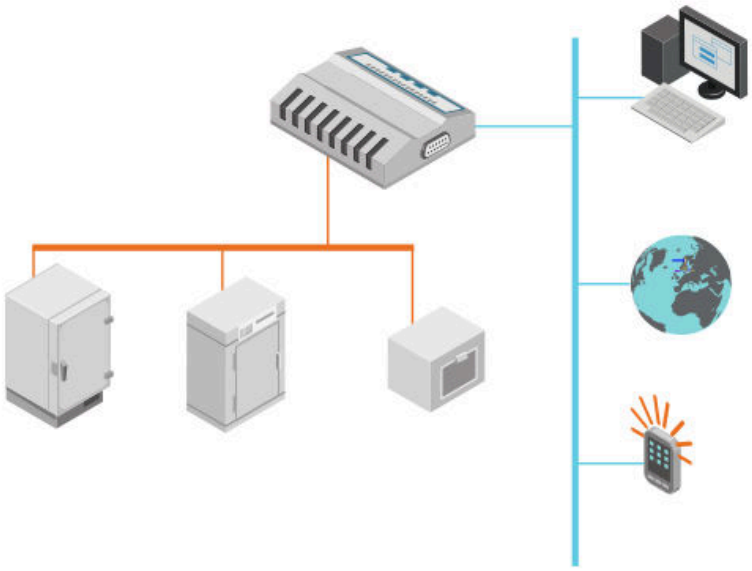
DL1016-1416 Multi-application Temperature Data Logger



Features

- Industry-leading precision and accuracy
- Real-time monitoring & alarming with viewLinc
- Reliable validation/mapping with vLog
- Easy connectivity to your existing network – wired or wireless
- Validation and continuous monitoring with the same data logger
- Superior alternative to chart recorders and hard-wired systems
- Traceable to SI units through national metrology institutes

Vaisala's multi-application temperature data loggers monitor temperatures in up to four applications with one logger – ultra-low temperature freezers, freezer/refrigerators and incubators.



DL1016-1416 data loggers can be used with Vaisala software, either viewLinc or vLog, to download, display, and analyze environmental data.

The viewLinc monitoring system provides 24/7 multi-stage alarm notification, remote, real-time monitoring and gap-free data.

The vLog software is a simple solution for validation/mapping applications.

All reports are customizable and can be exported to spreadsheets and PDF to provide records that meet the requirements of 21 CFR Part 11 and Annex 11.

DL1016-1416 data loggers include calibrations traceable to SI units through national metrology institutes.[1)]

Choose the DL1016-1416 VL series data logger for GxP-compliant environments and the DL1016-1416 SP series for non-GxP applications.

Model Numbers and Channels

- VL-1016-22V Two external channels for validatable applications
- VL-1416-44V Four external channels for validatable applications
- SP-1016-22V Two external channels
- SP-1416-44V Four external channels

1) *Measurement results are traceable to the international system of units (SI) through national metrology institutes (NIST USA, MIKES Finland, or equivalent) or ISO/IEC 17025 accredited calibration laboratories.*

Technical Data

General

Interfaces	RS-232 serial, USB, Ethernet, WiFi, PoE network interface available
PC software	vLog Graphing & Reporting Software viewLinc for continuous monitoring & alarming OPC Server to add Vaisala recorders to any OPC-compatible monitoring system
Internal clock	Accuracy ±1 min/month 0 ... +50 °C (+32 ... +122 °F)
Power source	Internal 10-year lithium battery (with sample interval of ≥1 min.)
EMC compliance	FCC Part 15 and CE EN 50581:2012 EN 55032:2012/AC:2013 Class B EN 61326-1:2013
RoHS compliance	2011/65/EU

Measurement Performance

Sensor	"V" Range External Probe
Calibrated measurement range	-90 ... +50 °C (-130 ... +122 °F)
Operating range	-95 ... +70 °C (-139 ... +158 °F)
Initial accuracy	±0.25 °C over -90 ... +50 °C (±0.45 °F over -130 ... +122 °F)
One year accuracy	±0.35 °C over -90 ... +50 °C (±0.63 °F over -130 ... +122 °F)
Resolution	0.01 °C at +25 °C (0.02 °F at +77 °F)

Data Logger Operating Environment

Operating temperature	0 ... +50 °C (+32 ... +122 °F)
Operating humidity	0 ... 100 %RH non-condensing
Storage temperature	-40 ... +85 °C (-40 ... +185 °F)
Storage humidity	0 ... 100 %RH non-condensing

Mechanical Specifications

Dimensions	85 × 59 × 26 mm (3.4 × 2.3 × 1 in)
Weight	76 g (2.7 oz)
Mounting	3M Dual Lock™ fasteners Snap-in connector locks provide secure probe connections

Memory

1016 Series	68 600 16-bit samples
1416 Series	101 375 16-bit samples
Memory type	Non-volative EEPROM
Memory modes and sampling rates	User-selectable rates from once every 10 seconds to once per day (with sample interval of ≥1 min.)

Recording Span: 1016-22V

	Number of Channels Enabled	
Sample Interval	**1**	**2**
1 minute	1.5 months	23.8 days
5 minutes	7.6 months	3.8 months
15 minutes	1.9 years	11.5 months
1 hour	7.8 years	3.9 years

Recording Span: 1416-44V

	Number of Channels Enabled			
Sample Interval	**1**	**2**	**3**	**4**
1 minute	2.3 months	1.1 months	23.5 days	17.6 days
5 minutes	11.3 months	5.6 months	3.7 months	2.8 months
15 minutes	2.8 years	1.4 years	11.3 months	8.5 months
1 hour	11.5 years	5.7 years	3.8 years	2.8 years

Thermistor Probes

Sensor	"V" Range External Probe
Operating Temperature	-95 ... +70 °C (-139 ... +158 °F)
Connector Color Code	Blue
Probe Length	3 m (10 ft) and 7.6 m (25 ft) lengths available
Cable Construction	2 mm (0.07 in) Diameter, Teflon coated cable
Stainless Steel Sensor Tip	
Diameter	3.2 mm (1/8 in)
Length	38 mm (1.5 in)
Sealed Teflon Sensor Tip	
Diameter	3 mm (0.12 in)
Length	28 mm (1.1 in)

Spare Parts and Accessories

Immersion/Dry Probes	
Thermistor V Range probe 25'	235139SP
Thermistor V Range probe 10'	235218SP
Thermistor immersion V Range probe 25'	235140SP
Thermistor immersion V Range probe 10'	235217SP
Temperature Probe Accessories	
Thermal Damping Block For use in refrigerators and freezers. Simulates a glycol bottle to reduce alarms generated by opening and closing a door.	EPT-TDB-2

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Published by Vaisala | B211042EN-E © Vaisala 2017