

# Vaisala Validation/ Mapping System

/ WHEN HUMIDITY AND TEMPERATURE ARE  
CRITICAL



**VAISALA**

# Faster Set-up, Lower Costs, Better Results



*“The Vaisala IQ/OQ protocol is very nicely done... [it’s] very complete and saved us 2-3 weeks of work.”*

**- Stephan Montag  
Head of IT**

*“After researching several companies that offer data loggers for temperature validation, the decision to purchase from Vaisala was easy. The software is Part 11 compliant and the protocol is outstanding!”*

**- Jean Wilson  
Senior Stability Scientist**

Compliance with strict regulatory guidelines and quality requirements demands accurate measurement, secure data, and comprehensive reporting. Unlike any competitive product, the Vaisala vLog mapping system specifies temperature and relative humidity accuracy for one year, eliminating the cost of frequent calibration. It’s an easy-to-use, cost-saving, high-accuracy solution for mapping critical and FDA-regulated environments — from stability chambers, to freezers, to warehouses.

## Unmatched Performance and Cost Savings

The vLog system is the most accurate and effective solution for understanding your environments and complying with regulations. With easy set-up and placement of self-contained data loggers, you can be mapping a chamber in minutes. Each logger contains highly stable sensors,

large internal memory, and a 10-year battery, eliminating the threat of power failure or lost data — while saving time and money with fast deployment.

vLog maintains all data and events in secure files, providing tamper-proof security with presentation-ready reports. You always have documentation on hand to evaluate each test quickly and meet 21 CFR Part 11.

Unlike other products that only state accuracy when equipment leaves the factory, Vaisala’s data loggers are calibrated to maintain accuracy for one full year. Each one has NIST-traceable certification from our A2LA-accredited calibration lab. Calibrations can be tailored to any customer requirement — including ICH guidelines.

### The vLog system provides:

- Temperature: -90 to 70 °C, up to 0.1 °C accuracy and 0.02 °C resolution
- Relative Humidity: 0 to 90 % RH, up to 1 % accuracy and 0.05 % resolution
- Audit trail, 21 CFR 11 compliant graph and tabular reporting
- Measurement accuracy specified for one year, eliminating the need for frequent calibration

# Flexible and Secure Reporting

## Quick Visual of Results

Display temperature and humidity on one graph or separate graphs. Use cursor limit lines for quick indication that your study ran successfully.

## Quality Reports with Simple Check-box Selection

Create standard and customized documents fast, including statistics such as min, max and avg values, Mean Kinetic Temperature and other calculations, or export generic .csv files for further analysis.

## System-wide Traceability and Secure Data

With vLog's validated audit trail, no interaction with the system goes unrecorded. Data remains secure and tamper-proof, ensuring reports are always compliant with 21 CFR Part 11.

## Industry-standard Security Access

Use all the capabilities of Windows password authentication so your IT staff can implement what they already use to protect other company assets.

## Ease of Use and Industry Best Reliability

Simply place the data loggers where you need them — no wires to handle. Their 10-year battery, internal memory, and stable sensors let you focus on test results instead of time-consuming setup and re-calibrations.

*"The Vaisala validation system reduced our setup time for temperature mapping by at least 80 %."*

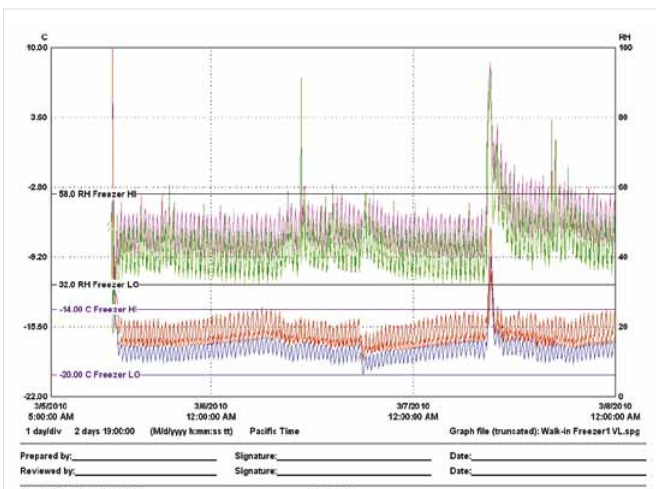
**- Stephanie Cowan  
Validation Specialist**



*Ideal for mapping ICH Stability areas, Freezers, Refrigerators, Incubators and Warehouses.*

Statistical Data Report												
Logger/Channel	3/1	3/2	3/3	3/4	3/5	3/6	3/7	3/8	3/9	3/10	Group	Group
Serial Number	0812255	0812256	0802250	0802251	0802252	0802253	0802254	0802255	0802256	0802257	Freezer1	Freezer2
Channel Description	Walk-in Freezer1	Walk-in Freezer2	Walk-in Freezer3	Walk-in Freezer4	Walk-in Freezer5	Walk-in Freezer6	Walk-in Freezer7	Walk-in Freezer8	Walk-in Freezer9	Walk-in Freezer10	C	RH
Channel Units	C	RH	C	C	C	C	C	C	C	C		
<b>3/5/2010 3:00:00 AM</b> <b>EXTERNAL STATISTICS</b>												
3/5/2010 3:00:00 AM												
Max Value	-12.60	49.3	-17.35	67.4	-14.97	53.9	-14.97	57.6				
Avg Value	-17.11	42.1	-19.83	67.4	-15.29	62.4	-17.32	64.2				
Min Value	-21.78	38.4	-24.90	68.5	-15.98	56.4	-18.00	58.0				
Max Value + Min Value	0.74	87.8	-2.55	135.9	2.37	114.4	0.33	115.6				
Max Value - Min Value	9.04	1.4	6.95	1.4	1.60	14.0	14.0	2.00				
Avg Value + Min Value	0.23	6.9	0.87	1.4	1.11	5.5	1.18	6.6				
Max Value - Avg Value	0.20	6.2	0.02	6.8	0.78	6.78	3.2	6.6				
Min Value - Avg Value	11	11	11	11	11	11	11	11				
Max Value Standard Deviation												
Max Value Coefficient of Variation												
Max Value Error	-12.60	49.3	-17.35	67.4	-14.97	53.9	-14.97	57.6				
Max Value Error	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010				
Max Value Logger/Channel	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010				
Max Value Error/Channel												
Max Value Error	-17.34	38.4	-15.00	68.5	-17.34	54.0	-18.00	58.0				
Max Value Error	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010				
Min Value Error	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010	3/5/2010				
Min Value Error												
3/5/2010 3:00:00 AM												
3/5/2010 3:00:00 AM	-17.20	42.9	-14.31	67.4	-14.74	60.1						
3/5/2010 3:00:00 AM												
3/5/2010 3:00:00 AM	-17.11	46.6	-17.78	58.6	-14.86	49.4						
3/5/2010 3:00:00 AM												
3/5/2010 3:00:00 AM	-16.97	49.3	-17.35	67.4	-13.27	44.4						
3/5/2010 3:00:00 AM												
3/5/2010 3:00:00 AM	-14.63	38.4	-15.10	65.6	-14.91	41.4						
3/5/2010 3:00:00 AM												
3/5/2010 3:00:00 AM	-17.34	38.4	-14.91	68.5	-14.39	38.3						
3/5/2010 3:00:00 AM												
3/5/2010 3:00:00 AM	-17.29	38.4	-14.60	64.6	-17.00	34.4						
3/5/2010 3:00:00 AM												
3/5/2010 3:00:00 AM	-17.14	44.9	-14.11	68.1	-14.43	49.4						
3/5/2010 3:00:00 AM												
3/5/2010 3:00:00 AM	-17.08	44.9	-14.08	61.7	-13.88	49.3						
3/5/2010 3:00:00 AM												
3/5/2010 3:00:00 AM	-17.00	44.9	-14.16	64.2	-14.20	53.9						
3/5/2010 3:00:00 AM												
3/5/2010 3:00:00 AM	-14.60	42.4	-14.15	57.6	-14.20	40.2						
3/5/2010 3:00:00 AM												
3/5/2010 3:00:00 AM	-17.34	37.4	-14.16	64.2	-14.20	37.3						
3/5/2010 3:00:00 AM												
3/5/2010 3:00:00 AM	-17.34	39.5	-14.88	64.1	-17.34	37.3						
3/5/2010 3:00:00 AM												
3/5/2010 3:00:00 AM	-17.34	43.1	-14.45	64.1	-17.04	41.3						

Reports can be generated in tabular or graphical formats. Customizable graphics include limit lines for viewing results at a glance.



Prepared by: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Reviewed by: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Report ID Number: 324429730 Page 1 of 2

# Comprehensive Support

## Service, Maintenance, Warranties



*"It's terrific to have real people answering the phones and providing support."*

**- Bob Burke,  
IT Manager**

We design, develop and produce our own systems, which means that exceptional knowledge and support capabilities are at your service, on demand. You can depend on accurate and responsive support for all your Vaisala products.

### Calibration: On-site or Accredited

To maintain the high accuracy measurement of the vLog system, we perform calibrations and complete functional testing in our own A2LA accredited lab, which meets the standards of ISO/IEC 17025 & ANSI/NCCL Z540-1-1994.

Calibrations include:

- Verification of specifications against the original calibration
- Battery check with any necessary firmware updates
- Measurement accuracy specified for one year

Wherever sending recorders in for recalibration is impractical, we offer onsite calibration for some devices. On-site calibration includes NIST-traceable certificate and reminders of recalibration due dates.

To reduce the costs of calibration, we offer optional 3- or 5-year pre-paid plans that not only provide protection from price increases, they are a significant savings on calibration costs. For your convenience, we provide loaner data recorders while units are being recalibrated.

For decades Vaisala has advanced the science, accuracy and industry standards of humidity and temperature measurement, recording and reporting. With a unique system that combines autonomous internal

### Productivity and Accuracy without Compromise

- IQ/OQ validation documentation
- Rapid support – answers when you need them
- Cost-saving extended warranties
- Complete calibration plans
- A2LA-accredited calibration, NIST traceability
- Complete service plans

memory and 10-year battery life for independent recording, we provide the most reliable system wherever data on environmental conditions are critical.

Ours is the only environmental validation system that states the accuracy of its humidity and temperature recorders after one year of field use. Whether your applications are FDA regulated or subject to other stringent quality compliance guidelines, Vaisala's systems deliver best-in-class accuracy, fail-safe data and customizable solutions.

vLog software is available and supported both directly and from a worldwide network of distributors. Learn more at [www.vaisala.com/en/lifescience/products/validation-mapping-system/Pages/default.aspx](http://www.vaisala.com/en/lifescience/products/validation-mapping-system/Pages/default.aspx)

# VAISALA

For more information, visit [www.vaisala.com](http://www.vaisala.com) or contact us at [sales@vaisala.com](mailto:sales@vaisala.com)

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