Continuous Monitoring System

/ REDUCE THE RISKS OF NON-COMPLIANCE & LOST PRODUCT IN GXP ENVIRONMENTS





viewLinc - The Safe Choice for Environmental Monitoring, Alarming, & Reporting in the Life Science Industries



Vaisala has been a global leader in environmental measurement technologies for over 75 years resulting in an in-depth understanding of the life science arena. The combination of world-class sensing technology and user-friendly software allows the viewLinc Continuous Monitoring System to help life science companies meet regulatory requirements and ensure against product loss or adulteration. All Vaisala software and hardware is supported by a diverse, dedicated and experienced team of professionals who provide a full suite of services globally.

We understand the challenges faced in the life science industries and have created a monitoring solution to mitigate risk through reliable measurement for stringent GxP environments. Not only do we reduce the risks of non-compliance and adulterated product, we provide



practical knowledge and education to make deployment and use of the system simple and easy. With Vaisala's continuous monitoring software viewLinc, best-in-class instruments, and reliable service behind you, you can be confident that your envrionmental monitoring methods and documentation will receive a stamp of approval during the most stringent audits and inspections.

Best-in-class Sensors, Powerful Software

The viewLinc system features tripleredundant data retention ensuring that data is immune to power outages, network interruptions, and human error. That is why the world's largest pharmaceutical, biotechnical and critical manufacturing organizations rely on viewLinc to comply with GMP, FDA 21 CFR Part 11 and Annex 11, CBER, SFDA, PMDA, ICH and other international regulations. "[The system] performed flawlessly — I really appreciate Vaisala's expedient service and quality product."

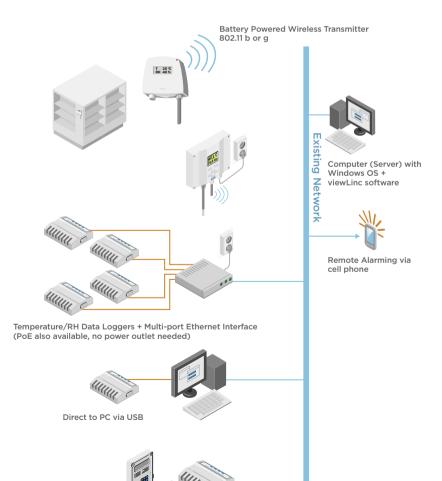
- Jason Corrao, New Technology Project Manager

Fail-safe Performance

- Complete Data Protection
 Months of data can be retained
 in the on-board memory of
 each data logger. Automatic
 data backfill to the viewLinc
 server and client PCs ensure
 gap-free data.
- Flexible Alarming
 Remote and local alerts via text, phone, pager, PC, buzzer, lights, third party responders send notice of out-of-tolerance conditions.
- Easy, Automated Reporting Browser-based access lets users create custom reports on demand. Frequently run reports can be automatically generated and delivered by email on a pre-set schedule.
- Time Zone Specific Management viewLinc is designed to recognize multiple time zones so that you can create records in a format that aligns with your Quality System's reporting standards.
- Low Cost of Ownership viewLinc can be deployed using an existing network and leverage your server infrastructure, saving the expense of maintaining a dedicated network. No need to validate or maintain software on client PCs or third party servers.

Monitoring, Alarming, Reporting Controlled Environments, Critical Applications

With non-disruptive installation on existing networks via PoE, Wi-Fi or Ethernet connectivity, viewLinc significantly reduces total cost of ownership. Secure browser-based accessibility allows users to remotely access a wide range of applications – from a local single site to multifacility installations. The system provides alarming and reporting that can be easily configured and automated. Vaisala's variety of sensor options meet and exceed industry standards for accuracy and reliability, providing extra assurance between calibration intervals. Ideal for GxP/FDA-regulated applications and environments that contain high-value products, viewLinc is flexible, fully validatable, and easy to deploy. Using Vaisala's industry-best data loggers and sensing devices, environmental data are recorded and monitored in real-time, then backed up with triple redundancy so that no data is lost during catastrophic failures. viewLinc maintains all historical data in a secure format for review and reporting and is easily configured to fit your needs. A single recorder can monitor temperature, relative humidity, and the analog sensor of your choice; external channels can take either current or voltage inputs for recording differential pressure, CO_2 , level, light, particles, conductivity, and more. Optional Boolean channels allow you to monitor door switches or alarm contacts.



Multiple Applications

- Warehouses
- Clean rooms
- Stability areas
- Calibration labs
- Archival storage
- Medical research
- Blood/tissue banks
- Cold rooms & freezers
- Critical manufacturing



Analog Device, such as: CO₂ & O₂; Differential Pressure; Particle Monitoring, etc. + Data Logger with PoE Interface

viewLinc Monitoring

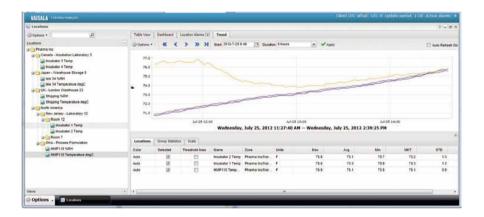
Easy, Real-time, Accessible

- Users can log into any secure network on a smart phone or client PC and view monitored environments from anywhere in the world. An unlimited number of users can monitor and report from any standard Web browser and view real-time data, historical trends and alarm reports in graphical and tabular formats.
- Monitored areas are organized into secure "Zones" that allow you to add locations on the same server and make them accessible only to authorized personnel. Users can create preconfigured comments for alarm notifications for specific monitored areas, saving time and standardizing common comments.
- Start with a single monitored point and scale up as you need – from one data location to thousands distributed across a wide geographical area, viewLinc can accept throughput > 5000 location inputs.
- Add viewLinc's data recorders to any OPC-compatible monitoring system. Interoperability provides added flexibility to your existing monitoring infrastructure.

 viewLinc's audit trail records all interactions with the system, providing a complete record for compliance with 21 CFR Part 11 and other regulatory and accreditation requirements. viewLinc Administrators can assign permission to restrict users' views, threshold-setting abilities, and alarm acknowledgment by personnel areas of responsibility.

"We are ecstatic with the viewLinc Monitoring System! It helps us meet FDA 21 CFR Part 11 and AATB accreditation requirements and we can monitor multiple sites from any location."

- Brad Bayette,
- **Tissue Services Manager**

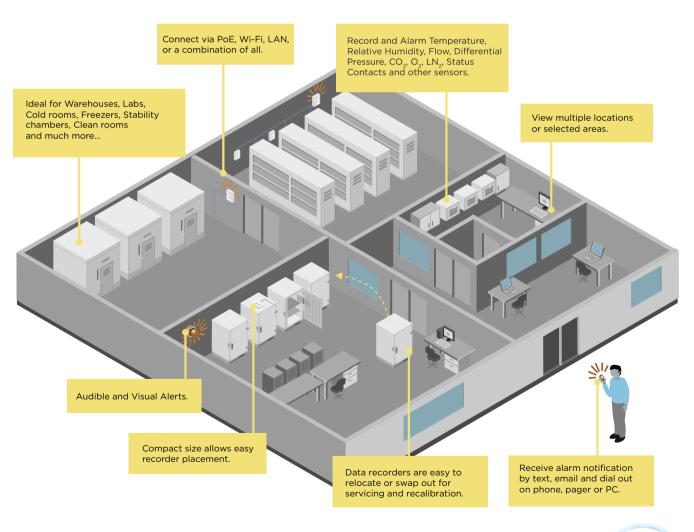






A Scalable Solution

Vaisala's Continuous Monitoring System can deploy as a total solution, complete with data loggers, software, service and documentation including IQOQ validation. The system does not require users to configure several multiple sensors from varied manufacturers. Most importantly, the viewLinc CMS was designed for life science environments. The system can be customized for your entire operation and installs easily on any standard network. Connectivity options include Wi-Fi, Power over Ethernet with the vNet PoE connectivity cradle, standard or multiport Ethernet interface, or direct to PC via USB. By connecting with your existing network, users can set up an easily scaled monitoring system that displays real-time data, automatically backs up data history, and sends alarms through a variety of notification methods. Easy deployment to existing networks saves on the costs of expensive and disruptive hard-wiring and cabling. There is no dedicated network to maintain. In addition, data loggers can be easily relocated to suit multiple applications and changing needs. Truly a global system, viewLinc software, IQOQ protocols and support documents are available in French, English, Chinese, German, Swedish and Japanese.





viewLinc's flexible reporting capabilities keep your monitored environments compliant with FDA, SFDA, EMA and other recognized international regulatory agencies. Users can create a wide variety of detailed and summary reports that include values, locations, duration, acknowledgements and corrective actions. Detailed naming of recorders and channels allows for complete descriptions of monitored locations, making it easy to find, monitor and report on select areas. Frequently generated reports, such as email and alarm history reports, can be pre-configured and automatically delivered by email on a schedule to relevant personnel. With viewLinc's reporting options, automation, and security, your internal Quality or customer-required records are always available, gap-free, and audit-ready.

The viewLinc CMS software is also designed to recognize multiple time zone installations.

viewLinc's fail-safe alarming is easy to configure, customize, and automate. With escalating multithreshold alarms, viewLinc triggers a notification at the first sign of a problem, sending alerts via cell phone, pager, desktop display, dial-out phone, or text email. Zone security permits scheduling of notification by day, time, and user. System administrators can set alarming functions according to shift schedules, escalation procedures, and user permission-level. The viewLinc system's security settings can be used alone or in conjunction with Windows authentication to allow easy management of permissions.

VAISALA



The interface facilitates easy access to product data in a more familiar Windows-type navigation. viewLinc is compatible with Microsoft Windows Server 2003 (32 & 64) and 2008 (32 & 64), Windows XP (32), and Windows 7 (32 & 64).

Flexible Reporting

- Review specific monitored points over selected time periods.
- Quick summary and detailed alarm history: values, locations, duration, acknowledgements and corrective actions.
- User-defined limit lines give a quick visual reference on graphic reports.
- Reports are formatted and presentation-ready, including data, statistics, and graphs.

Report generated on Include zones and locations:			trom 2013-01-13 12:26:25 to 2013-01-14 12:26:25 2013-01-14 12:26:27 (UTC-08:00) Pacific Time (US & Canada) All Locations No		
Activated Deactiva	ive alarms:	:	60 58 57 0		
Activation	Deactivation	Duration	Source	Description	Acknowledgement
2013-01-03 14:44:29		10 days, 21 hours, 41 minutes, 57 seconds	Device Port 1 (08121326) on Host viewLincDevel.uniserve.com	Device Calibration Reminder: Default Device Calibration Alarm for Device Port 1 (08121326) on Hoet viewLincDevel.uniserve.com Affected locations: Temperature (1036),Ext probe (1034)	Acknowledged on 2013-01-07 12:49:00 by admin: "", comment: 123 Acknowledged on 2013-01-07 12:46:41 by admin: "Nothing", comment: Known issue with logger
2013-01-03 14:46:27		10 days, 21 hours, 39 minutes, 59 seconds	Device Room 10 (08121264) on Host viewLincDevel.uniserve.com	Device Calibration Reminder: Default Device Calibration Alarm for Device Room 10 (08121264) on Host viewLincDevel.uniserve.com	Acknowledged on 2013-01-07 12:49:00 by admin: ", comment: 123 Acknowledged on 2013-01-07 12:46:44 by admin: ", comment: Known issue with logger
2013-01-14 09:51:30	2013-01-14 09:51:40	10 seconds	Threshold Alarm: Default Threshold Alarm for Threshold: location value greater than 28.00 C for System/Room 10/Ext Probe	Threshold Alarm: Default Threshold Alarm for Threshold: location value greater than 28.00 C for System/Room 10/Ext Probe Affected location: System/Room 10/Ext Probe (1054)	
2013-01-14 09:53:20	2013-01-14 09:53:40	20 seconds	Threshold Alarm: Default Threshold Alarm for Threshold: location value greater than 28.00 C for System/Room 10/Ext Probe	Threshold Alarm: Default Threshold Alarm for Threshold: location value greater than 28.00 C for System/Room 10/Ext Probe Affected location: System/Room 10/Ext Probe (1054)	
2013-01-14 09:54:00	2013-01-14 10:00:40	6 minutes, 40 seconds	Threshold Alarm: Default Threshold Alarm for Threshold: location value greater than 28.00 C for System/Room 10/Ext Probe	Threshold Alarm: Default Threshold Alarm for Threshold: location value greater than 28.00 C for System/Room 10/Ext Probe Affected location: System/Room 10/Ext Probe (1054)	
2013-01-14 10:11:10	2013-01-14 10:11:20	10 seconds	Threshold Alarm: Default Threshold Alarm for Threshold: location value greater than 28.00 C for System/Room 10/Ext Probe	Threshold Alarm: Default Threshold Alarm for Threshold: location value greater than 28.00 C for System/Room 10/Ext Probe Affected location: System/Room 10/Ext Probe (1054)	

More than 800 systems installed worldwide

Comprehensive Support

Installation, Maintenance, Warranties

We offer full support for the life of our products. You can depend on responsive service from our technical support team. We ensure that your system is maintained at a level that meets the most stringent standards of your compliance requirements.

Service Packages: Training, Installation, Validation

As a standard part of every viewLinc system, we offer comprehensive support plans that provide assistance by phone, fax, Web or e-mail, as well as Web-based training for new users and administrators. All Vaisala Veriteq data loggers come with a 2-year warranty. Available support services include full installation and deployment of viewLinc software, validation of the system, training for users and administrators, field calibration, and calibration within our own laboratories. Vaisala's team of engineers, metrologists and technical support experts are committed to ensuring your system functions flawlessly for years.

Calibration: On-site or Depot

To maintain the high accuracy measurement of the viewLinc system, we perform calibrations

World-class Support

- Onsite or remote support worldwide
- User/Admin Training onsite or remote
- Extended Warranties & prepaid Calibration Plans

and complete functional testing in our own A2LA accredited lab, which meets the standards of ISO/IEC 17025 & ANSI/NCSL Z540-1-1994.

Calibrations include:

- Verification of specifications against the original calibration
- Battery check with any necessary firmware updates

When sending devices in for recalibration is impractical, we offer onsite calibration for most devices. On-site calibration includes a NISTtraceable 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, but also offer significant savings on calibration costs. For your convenience, we also offer rental devices while units are being recalibrated.



"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

Learn More

The Vaisala Continuous Monitoring System is available and supported worldwide. For further information visit **www.vaisala.com/service**.



Data Loggers, Instruments & Transmitters*



HMT140

The Vaisala HUMICAP[®] Humidity and Temperature Wireless Transmitter HMT140 measures relative humidity and temperature using probe and analog signals – RTD, voltage, current loop and Boolean contacts. The HMT140 connects easily to your existing Wi-Fi network and is battery powered, with an optional 9-30VDC power supply. Other options

include LCD display, multiple signal measurements, and fixed probe directly attached to the transmitter housing or a remote probe with different (3/5/10m) cable lengths. Connecting wirelessly to your existing network will allow you to easily move monitored chambers, or move the device where needed.



HMT330

The Vaisala HUMICAP^{*} Humidity and Temperature Transmitter Series HMT330 is designed for demanding applications where stable measurement and wide customization is important. Featuring warmed probe technology for superior performance in condensing environments and an IP65 corrosion resistant housing, the HMT330 has an option for integrated data logging, with over four years of measurement history.



vNet

The vNet PoE network interface provides easy connectivity between Vaisala data loggers and your existing network. The snap-in design streamlines logger connectivity into a small footprint, eliminating wires between normally separate loggers and PoE

devices as well as the cost of installing an AC power source.



DL1016/1416

These multi-application temperature data loggers can monitor temperatures in up to four applications across a wide range of temperatures - from ultralow temperature freezers, freezer/refrigerators and incubators. The DL1016 or

1416 data loggers eliminate the need to purchase and install additional hardware - no extra loggers or added network access points are required to simultaneously monitor up to four environments.



labs, cleanrooms, and stability chambers. The DL2000 also features an optional external channel with current or voltage inputs to record parameters such as differential pressure, CO_2 , level, particles, or conductivity. An optional Boolean channel connects to door switches or alarm contacts.

* The products listed are a small sample of the options available on the Vaisala CMS. See a complete selection of Vaisala devices at www.vaisala.com/lifescience



Please contact us at www.vaisala.com/requestinfo



more information

Ref. B211046EN-C ©Vaisala 2013 This material is subject to copyright protection, with all copyrights reserved. Any logos and/or product names are trademarks of Vaisala or its individual partners. The reproduction transfer, distribution or storage of information contained in this brochure in any form without the prior written consent of Vaisala is strictly prohibited. All specifications – technical included – are subject to change without notice.

www.vaisala.com

DL4000

DL2000

Vaisala Veriteg DL2000

precision temperature and

humidity data loggers are

compact, powerful and

easy-to-use recorders

for monitoring critical

and humidity-sensitive

products and processes in

The DL4000 data loggers are a simple solution for monitoring pressure, flow, level, PH, electrical properties and gas concentrations. Ideal for standalone or networked applications, this Universal Input logger connects to a PC via USB or installs to your existing network via Ethernet, vNet PoE or Wi-Fi.