

# Measure, Monitor & Validate

/ IN LIFE SCIENCE ENVIRONMENTS



**VAISALA**

# Instrumentation for Life Science Environments

/ STABILITY CHAMBERS, WAREHOUSES, CLEANROOMS, HVAC



## Continuous Monitoring System (CMS)

The Vaisala Veriteq CMS is designed for FDA-regulated and critical environments and monitors multiple parameters including temperature, relative humidity, CO<sub>2</sub>, differential pressure, light, door switches, and more. Comprising viewLinc software combined with Vaisala's Veriteq VL/SP model data loggers, the system provides redundant data protection, long-term measurement accuracy, fail-safe alarming and gap-free recording.

- Validatable software and loggers meet 21 CFR Part 11 and other regulatory requirements
- Easy connectivity to your existing network via Ethernet, PoE, WiFi or any combination
- Accurate to ±1%RH and ±0.10°C, with a resolution of 0.05%RH and 0.02°C
- Web-based interface for remote monitoring
- Alarm notifications through email, text, PC display, phone, lights/audio
- Secure Audit trail and customizable reporting



## Validation/Mapping System

Designed for the most demanding validation applications, the Vaisala Veriteq system comprises vLog software and Vaisala's Veriteq VL data loggers for downloading, displaying, analyzing and reporting. Fully encrypted and validatable, vLog produces tabular and graphical reports that are easy to customize to your documentation needs.

- High-stability internal sensors eliminate pre- and post-calibrations
- Compact data loggers are easy to place and less disruptive to normal operations than thermocouples
- 10-year battery life ensures reliable, non-stop recording
- All files are encrypted and reports are 21 CFR Part 11 compliant
- Simple-to-use vLog Software provides detailed, customizable reports
- Comprehensive IQ/OQ protocol available
- Vaisala executed validation/mapping service available



## Standalone Data Logging

The Vaisala Veriteq SP and VL series of data loggers measure and record environmental conditions in pharmaceutical warehouses, research and development labs, hospital & clinical environments and fridges, cold rooms, and ultra-low freezers. With on-board power and memory for autonomous recording, data is immune to any network or power failure. Each logger is compact, easily deployable, and adaptable for multiple inputs.

- Industry-best sensor precision and accuracy
- Available in single and multi-channel versions for logging temperature, humidity, CO<sub>2</sub>, differential pressure, light, door switches and other variables
- Snap-in external inputs for secure probe connections
- Adjustable sample intervals with large on-board recording capacity
- NIST-traceable, A2LA accredited calibration (optional ICH calibration)
- Onsite calibration and rentals also available



Vaisala CARBOCAP® Carbon Dioxide Hand-held Meter GM70 with carbon dioxide and humidity probes (left). Vaisala CARBOCAP® Carbon Dioxide Transmitter GMT221 (right)

## Incubators

Incubators require precise control of temperature, relative humidity and carbon dioxide. Due to its highly reliable design, the patented Vaisala CARBOCAP® carbon dioxide sensor has become a standard for use in incubators.

- Reference measurement ensures excellent long-term stability
- Operates reliably in high humidity environments
- Low maintenance
- Portable version
  - Ideal for calibrating incubators
  - HMP75 RH/T probe - compensates for temperature automatically



Vaisala HUMICAP® Intrinsicly Safe Humidity and Temperature Transmitter HMT368



Vaisala HUMICAP® Humidity and Temperature Series HMT330 for excellent performance.

## Stability Room/ Environmental Chambers

The Vaisala HUMICAP® family of instruments offers hundreds of configurations to measure humidity, temperature and/or dewpoint in virtually any test condition.

- ±1% RH accuracy (NIST certificate included)
- Exceptional stability over a wide range of temperatures and humidities
- Easy to calibrate
  - on-site, one point calibration
- Unique warmed probe for near-condensing conditions
- Special sensor for dry rooms

## ETO Sterilization

Vaisala HUMICAP® Relative Humidity Sensors are chemically resistant to ethylene oxide and have been used successfully in a variety of ETO gas mixtures.

- HMT368 measures in 100% ETO
  - Intrinsicly safe
  - Interchangeable probes for easy calibration
- Vaisala HUMICAP® Humidity and Temperature Transmitter HMT338 for lower concentrations of ETO
  - Sensor regain feature maintains long-term stability
- Sealed probes can withstand vacuum



Vaisala DRYCAP® Dewpoint Transmitter DMT345

## Tablet Coaters/Fluid Bed Dryers

Tablet coating depends on an energy balance that can be disrupted if the water vapor content of the process air is not held at a specific and constant level. The Vaisala HUMICAP® and DRYCAP® family of instruments offers hundreds of configurations to reliably measure humidity, temperature and/or dewpoint.

- Exceptional stability over a wide range of temperatures and humidities
- Intrinsicly safe instruments for hazardous environments
- Vaisala DRYCAP® Dewpoint Transmitter DMT345 has a unique probe design that allows the direct measurement of dewpoint in dry air at high temperatures without any sampling apparatus.



Vaisala HUMICAP® Duct Mount Humidity and Temperature Transmitters HMD60Y and HMT 120/130 Series.

### Demanding HVAC & Harsh Conditions

Instruments used for monitoring conditions in harsh environments must be easy to maintain and have minimum downtime. Vaisala HUMICAP® HMD60Y Humidity and Temperature Transmitters mount easily on walls or ducts for monitoring HVAC applications.

The Vaisala HUMICAP® HMT120/130 Humidity and Temperature Transmitters are resistant to dust and chemicals and can be mounted outdoors using a Vaisala installation kit.

- Interchangeable remote or local probe
- 2-wire loop-powered or 3-wire voltage output configurations
- Interchangeable probe for easy field calibration
- Optional LCD display
- Easy USB connectivity to PC for maintenance
- Wall-mounted or remote probe
- Constant output probe available
- Optional radiation shield and enclosure



Vaisala BAROCAP® Combined Pressure, Humidity and Temperature Transmitter PTU300

### Cleanrooms

The Vaisala BAROCAP® Combined Pressure, Humidity and Temperature Transmitter PTU300 is an ideal choice for monitoring cleanrooms and other controlled environments where measurements must be recorded and maintained.

- One instrument provides three high performance measurements
- Choice of humidity probe configurations
- Optional redundant pressure sensors for ultimate reliability
- Graphical display for observing measurement trends locally



Vaisala DRYCAP® Dewpoint Transmitter family of products.

### Compressed Air Dewpoint

Vaisala DRYCAP® sensor technology provides stable dewpoint measurement in compressed air down to -80 °C (-112 °F) dewpoint at pressures up to 280 psig. Patented auto-calibration technology maintains measurement performance for up to two years.

- Fast response time
- Unique hand-held for field use
- Highly stable over time



**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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