VAISALA

Measure, Monitor and Validate

IN PHARMACEUTICAL AND HIGH TECHNOLOGY CLEANROOMS

Instrumentation, Monitoring, and Services for Cleanrooms

Cleanrooms and other critical environments require high-performance environmental measurements to operate consistently and within specifications. Humidity and temperature measurement can be especially challenging in a cleanroom environment. Vaisala's accurate instruments and robust solutions address measurement challenges and help keep your cleanroom facilities running smoothly.

Continuous Monitoring

The Vaisala viewLinc Continuous Monitoring System (CMS) is designed for GxP-compliant and critical environments and monitors multiple parameters including temperature, relative humidity, CO_2, differential pressure, light, door switches, and more.

By combining Vaisala's viewLinc software, data loggers, and other measurement instruments, the system provides redundant data protection, long-term measurement accuracy, fail-safe alarming and gap-free records. Validatable software and loggers meet FDA 21 CFR Part 11, EU GMP Annex 11, and other regulatory requirements.

CMS services

- Installation
- Validation
- Mapping
- Calibration & Repairs
- Technical Support
- Support Plan
- Training

RFL100 Data Loggers use Vaisala's proprietary VaiNet wireless technology to monitor temperature, relative humidity, and carbon dioxide in cleanrooms, incubators, and other controlled environments. VaiNet provides reliable, long-range communication in complex, obstructed conditions without signal amplifiers or repeaters. All data are encrypted to ensure data integrity and security.

Vaisala's CAB100 instrument panel provides centralized integration of sensors with the viewLinc Continuous Monitoring System. The CAB100 integrates Vaisala's world-class sensors for monitoring humidity, temperature, differential pressure and other parameters into a simple, pre-configured cabinet. Configurable to your application requirements, select options for differential pressure transmitters, analog inputs for remote transmitters, and safety barriers to limit voltage in hazardous areas that require Intrinsically Safe devices. CAB100 devices can be changed or expanded as needed.

Indigo Transmitters and Smart Probes

Indigo 520 transmitter

With robust transmitters, interchangeable smart probes, and optional Insight software, Vaisala's Indigo transmitters and sensors ensure accurate measurement, energy efficiency, and process quality. A modular design allows you to create the perfect fit for your measurement needs.

The Indigo500 transmitter features dual-probe support, with analog/digital/relay outputs, Power over Ethernet, a robust metal enclosure, and touchscreen display. Compatible with the viewLinc Continuous Monitoring System, the Indigo500 transmitter supports Modbus TCP/IP connection to viewLinc.

Indigo200 transmitters provide single-probe support with analog, digital, and relay outputs. Features include graphical or numeric display and wireless access via a smartphone, or PC.

Indigo 200 transmitter with GMP251 CO_2 probe

Indigo features:

*   Smart probe technology with superior accuracy and stability
*   Plug-and-play probes are easy to install, use, and maintain
*   Flexible connectivity: Modbus RTU over RS-485 or analog outputs
*   Insight software for self-service calibration and data visualization
*   Multi-parameter measurements, including barometric pressure

Indigo probe parameters:

*   Humidity & Dew point
*   Temperature
*   Barometric pressure
*   Carbon dioxide
*   Moisture in oil
*   Vaporized hydrogen peroxide

Indigo 200 transmitter with HMP1 T/RH probe

GMP251 carbon dioxide probes provide %-level measurements (0–20 %CO_2) or the GMP252 for ppm-level measurements (0–10,000 ppm CO_2).

HMP1 Wall-mounted Humidity and Temperature probes provide relative humidity accuracy up to ±1 %RH and temperature accuracy up to 0.2 °C. Chemical purge provides superior chemical resistance and stability. Includes a traceable calibration certificate: up to six calibration points for humidity, one for temperature.

HPP270 series probes measure vaporized hydrogen peroxide. For accurate and repeatable measurement of vH_2O_2 bio-decontamination.

Differential Pressure

Vaisala Differential Pressure Transmitters are designed especially for demanding cleanroom applications.

PDT101 is easy to mount on wall, DIN rail, or panel.

PDT102 with process valve actuator and test jacks.

Differential Pressure Transmitter PDT102

*   In-place calibration and on-line monitoring without disturbing process tubes
*   Optional process valve actuator and test jacks
*   Ultrathin profile suited for DIN rail mount reduces installation and calibration costs
*   Two options; 0.25% or 0.50% of span; designed for use in critical cleanroom applications

Differential Pressure Transmitter PDT101

*   Accessible zero and span adjustment potentiometers
*   ¼" brass tubing connections

HM70 Handheld Humidity and Temperature Meter

GM70 Handheld Carbon Dioxide Meter

HMT120 Transmitters

Handheld Humidity/ Temperature Meters

The Vaisala Handheld Humidity and Temperature Meter HM70 is ideal for for spot-checking cleanroom applications. Designed for demanding measurements, the HM70 can also be used for calibrating fixed humidity instruments.

Includes the Vaisala MI70 indicator with optional MI70 Link software with USB cable for transferring data and real-time measurements from the HM70 to a PC. Several probe options available, including traceable calibration to national standards (certificate included).

Handheld Carbon Dioxide Meters

The Vaisala Handheld Carbon Dioxide Meter GM70 is used to spot-check CO_2 measurements. With two optional sampling methods, diffusion or pump aspiration, the GM70 offers a wide selection of measurement ranges.

The GM70 handheld meter has two probe inputs; Vaisala's relative humidity and dew point probes can also be used simultaneously with the CO_2 measurement. The GM70 has a short warm-up time and is ready for use almost immediately. It has a menu-based interface, a graphical LCD display, and data logging capability.

Includes the Vaisala MI70 indicator with optional MI70 Link software with USB cable for transferring data and real-time measurements from the GM70 to a PC. Several probe options available, including traceable calibration to national standards (certificate included).

Fixed Humidity/ Temperature Transmitters

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 probes

- 2-wire loop-powered or 3-wire voltage output configurations

- Removable probe for easy calibration

- Optional LCD display and easy USB connectivity to PC

- Wall-mounted or remote options available

- Optional radiation shield and enclosure for outdoor measurement

Please contact us at
www.vaisala.com/contactus

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