VAISALA

HVAC Solutions

Instruments and Services

Why Vaisala

Demanding measurement requirements across multiple industries, from semiconductor to automotive to HVAC, have always inspired Vaisala to continuously develop measurement instruments and technologies that set the benchmark for quality, accuracy and reliability.

Want to have a peek inside a Vaisala cleanroom?

Explore

EXPERIENCE
What Makes Vaisala Different

MEASURE
Parameters and Applications

SOLVE
Best Solutions

MAINTAIN
Calibration and Repair Services

WATCH
Informative Video Links

LEARN
Collection of Webinars

INQUIRE
Contact Us and FAQs

Industry Experts

Vaisala brings best-in-class value to our customers every day. To ensure we continue to understand your needs, we take customer feedback seriously and cater to your specific requests. Our premium manufacturing facility and our state of the art cleanrooms and laboratories ensure that the instruments we offer meet your requirements in a wide variety of applications.

The high quality of our HVAC products brings major benefits for all your project stakeholders. The transmitters are easy and fast to install, they show correct values immediately after power up, and remain stable without maintenance. Contact our **HVAC team** to find the best solution for you.

Kimmo Korpela, Head of EMEA, Controlled Environment Group

Success Stories

Throughout our 80 year history, Vaisala has succeeded together with our customers. From helping with the **preservation of the most valuable painting Mona Lisa** at the Louvre Museum in Paris to the invaluable French, English, and American **stained glass windows at St Patrick's Cathedral** in New York City to **controlling ventilation and air conditioning at metro stations** for the comfort of commuters, our humidity control instruments are selected because they are simply the best.

"As a normal Louvre visitor you cannot even imagine the complexity of the installation."

Wilfried Gesbert, Climate Engineer for Cofely Axima

Vaisala's HMT330 helps preserve the Mona Lisa by measuring the stability of the humidity and temperature environment within its glass vitrine.

Measure

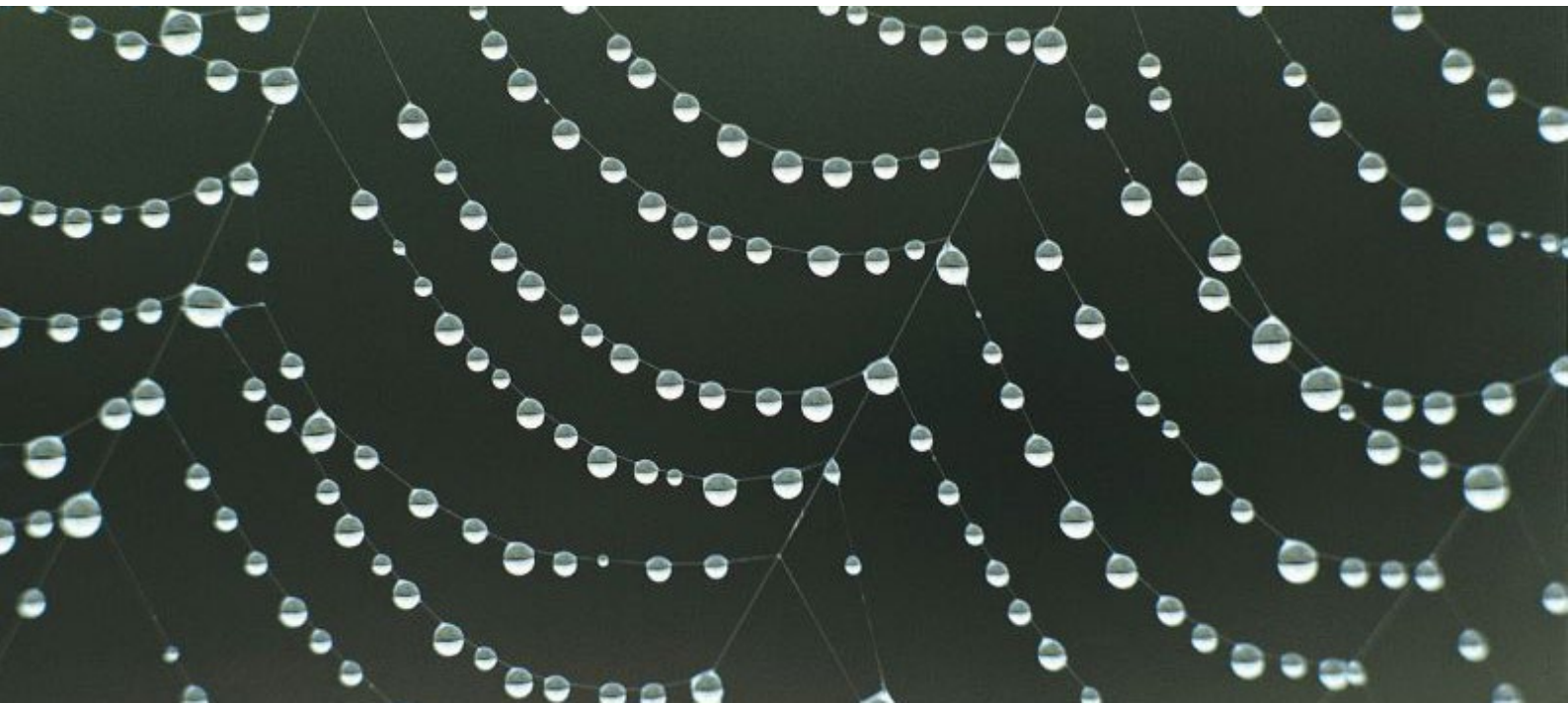
Click on the icons below for information about the parameters we measure.

TEMPERATURE

HUMIDITY

CO_2

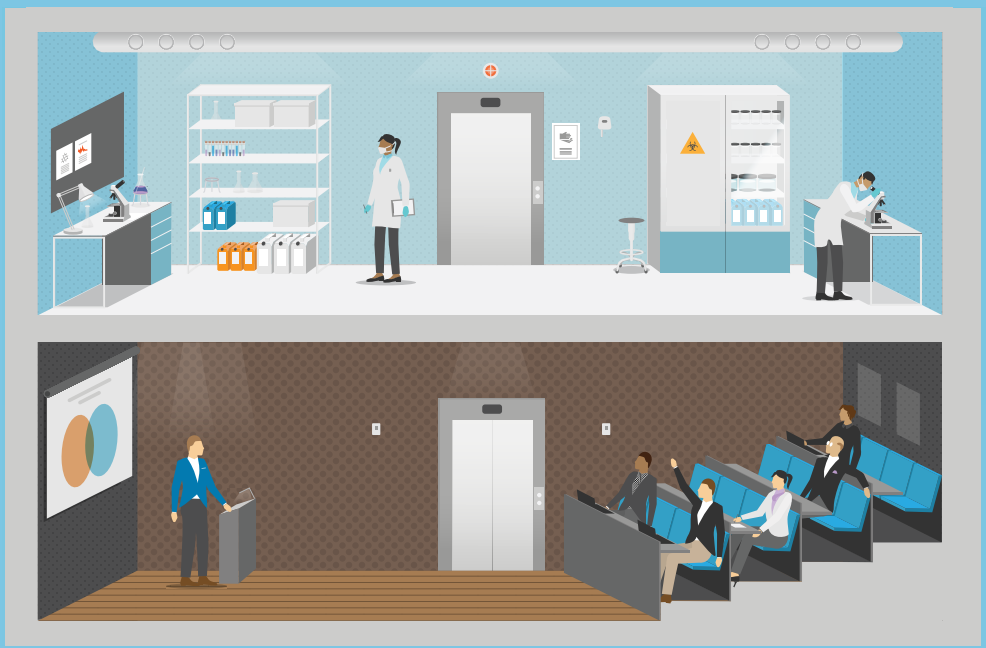
Scroll to the following pages for a review of our applications.



Overall HVAC

The highest quality measurement instruments are essential when optimizing HVAC controls. Vaisala offers reliable and accurate instruments for measuring carbon dioxide, humidity, temperature and barometric pressure. They can be used indoors or outdoors, and installed on walls or in ventilation ducts.

ENTER THE VAISALA HVAC HOUSE



Demand Controlled Ventilation

Carbon dioxide level in a space indicates human presence and can be used to control ventilation. In demand controlled ventilation (DCV) the ventilation is adjusted to correspond to the true ventilation need. Buildings must be made smarter in order to save energy and to keep the building's inhabitants happy and healthy. DCV has clear advantages especially when occupancy varies widely, such as in schools, conference centers and auditoriums.

GET CONTROL OF YOUR BUILDING SYSTEM

IAQ & Human Comfort & Efficiency

Indoor air quality (IAQ) depends on the building usage, applied ventilation solutions, building location, construction methods and materials, and outdoor conditions. Adequate ventilation and healthy structures are prerequisites for good indoor air quality , which has a direct impact on employees' mental skills.

IAQ

Outdoor Measurement

Accurate outdoor measurements are essential for building operations such as free cooling, cooling towers, and highly intelligent building automation systems. Changing weather can make measuring outdoor environmental conditions a challenge.

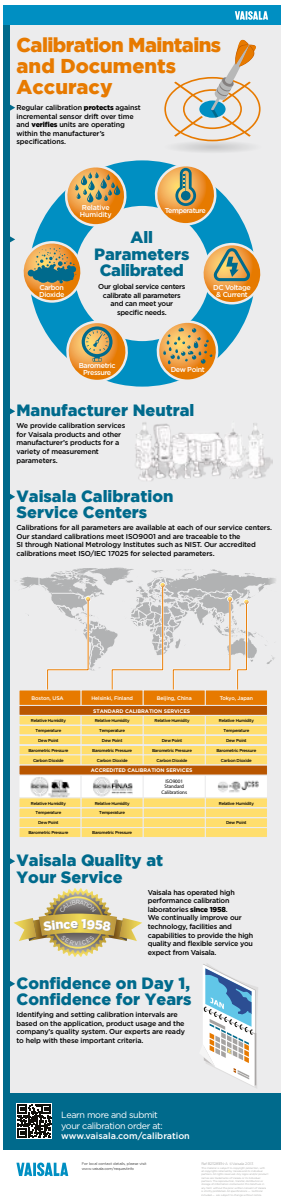
OUTDOOR HVAC

Solve

At Vaisala, we don’t just sell you a product. We provide you with a solution. With a high level of expertise spanning across dozens of applications, we assure that you will be given the best solution to fit your needs. Keep reading to learn more about the right fit for your application and the different parameters we measure.

Maintain

Regular calibration ensures your high-precision instruments continue to provide accurate, high-quality data. Choosing the right calibration laboratory can be as important for lifetime accuracy and reliability as the initial selection of the instrument. Our high-performance calibration laboratories started in 1958 and we continually improve our technology, facilities and capabilities to provide the high quality and scope of services that you expect from Vaisala.



Calibration Services

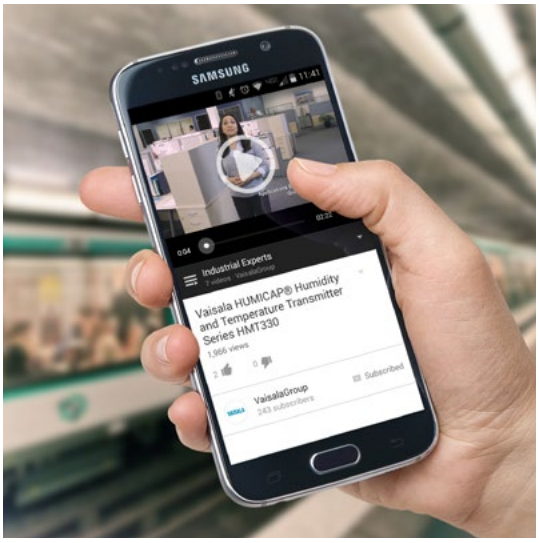

Accredited
Humidity Calibration Certificate
AS LEFT DATA
Certificate Sample

Our global service centers provide a wide range of calibration services to meet your specific needs: standard calibration, custom points and accredited calibration services audited by the world's leading accreditation authorities.

VIEW CALIBRATION

Watch videos

These short 2 minute clips will take you on a virtual tour of Vaisala. We'll also introduce you to our best in class humidity, temperature and CO_2 instruments.



Vaisala Humidity and Temperature Transmitter Series HMT330

Building automation systems that regulate temperature, humidity and air quality.

Carbon Dioxide Relative Humidity and Temperature for HVAC Applications

A combined carbon dioxide (CO_2), relative humidity (RH), and temperature transmitter is available called the GMW90.

Learn

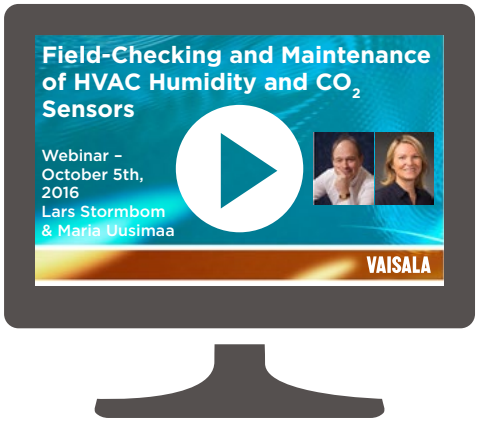
Our free webinars are a great way to gain valuable knowledge about topics of interest in the field.

How to Choose the Best Sensors for Your HVAC Needs

What are the requirements for the CO_2 sensors in different standards and certification schemes like ASHRAE 90.1 and LEED?

Outdoor Humidity Measurement in HVAC Applications

Learn about ways to save energy by using evaporative cooling and free cooling.



Field-Checking and Maintenance of HVAC Humidity and CO_2 Sensors

Learn about the importance of field-calibration and what causes sensors to drift.

Inquire

Our team brings to our customers 100+ years of combined mechanical, chemical, electrical and computer engineering experience.

Vaisala engineers are on hand to assist you with your product or application questions.

CONTACT VAISALA

Frequently Asked Questions

QUESTION	ANSWER
Won't a relative humidity sensor mounted on the roof give false readings because of the heat/sun?	This is absolutely true, therefore it is always recommended to use a weather/radiation shield over the sensor to protect it from all the elements. Look for shields that are not only water-tight (designed to fit the sensor/probe you're using) and provide ventilation but also utilize corrosion resistant material – like polycarbonate plastics or anodized aluminum.
QUESTION	**ANSWER**
My RH and Temp probe is placed in a dirty environment, can the sensor inside the probe be cleaned?	As long as you're using a remote probe you can unscrew the filter, located at the tip of the probe, and gently rinse the sensor with distilled water. After rinsing the sensor you must let the sensor dry completely before placing it back into your process. You can clean the filter the same way. You can also replace the filter from time to time as well and note that in a dirty environment it is recommended that you use a filter with the smallest pore size. Check with your sales team to make sure you are using the best filter. You can find your regional sales contact by clicking **HERE**.

FAQ's Continued

QUESTION	ANSWER
What is the difference between the Vaisala HUMICAP® and INTERCAP® sensor for HVAC use?	Although both sensors are thin film polymer capacitive sensors the HUMICAP® will not only provide you with better accuracy but provide higher protection against chemical contaminants. The HUMICAP® also comes standard with a NIST traceable calibration certificate. The INTERCAP® will provide you with a +/-3% RH accuracy and does not come with any calibration certificate, but the INTERCAP® is considered interchangeable in the field without any need for calibration. Although the HUMICAP® can be replaced in the field, a two point field calibration is required to ensure the sensor complies with the specified accuracy.
I would like to measure CO_2 in a building that is occupied 24/7. I don't know how often calibration will happen, how stable will my measurement be?	Carbon dioxide stability for Vaisala's HVAC specific transmitters is ± (15 ppm + 2% of reading) over 5 years. In addition our instruments do not require an automatic offset correction, instead our CARBOCAP® sensor maintains its stability by using an internal reference measurement. This not only makes it ideal for buildings that operate 24/7 but the sensor will show correct values immediately when powered on.

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Thank you!

www.vaisala.com