



HVAC TRANSMITTERS

Catalogue

VAISALA

EXCELLENCE IN MEASUREMENTS



For cutting-edge SOLUTIONS

Our selection of temperature, humidity and carbon dioxide transmitters are perfect for HVAC monitoring and controls, such as building automation systems, demand-controlled ventilation and building management systems.



Unrivalled PERFORMANCE

Accurate measurements are essential for healthy indoor air and improving the energy efficiency of buildings. Sensors and transmitters from Vaisala are renowned for their unrivalled performance, reliable results, and low total cost of ownership.



Healthy and SUSTAINABLE

The unique, cutting edge Vaisala sensor technologies are manifested throughout our versatile range of products. The transmitters have an exceptionally long lifetime and excellent measurement stability, thus being practically maintenance free. These are among the many reasons why Vaisala's products are a sustainable choice.



5-year WARRANTY

We are confident in the lasting quality and long lifetime of our measurement instruments. We are offering a standard warranty period of five years on our transmitters for building automation.

5-YEAR WARRANTY ON SELECTED HVAC TRANSMITTERS

Vaisala's high-quality, reliable measurement instruments offer an exceptionally long lifetime, need minimal maintenance, and provide excellent measurement stability. This makes them the ideal choice for reliable HVAC control. Our transmitters for building automation are covered by 5-year warranty.

See all warranty terms: www.vaisala.com/warranty









ROOM TRANSMITTERS

Accuracy that lasts

The secret of the long lifetime of our transmitters: the winning combination of unique measurement technology and careful future-proof design of instruments. These products have excellent measurement stability, which makes them practically maintenance free, and a sustainable choice.

The general purpose HVAC transmitters are renowned for their long lifetime and low total cost of ownership, their reliability and negligible maintenance needs throughout the product life cycle.

	HMW90 Series Humidity and Temperature Transmitters	TMW90 Series Temperature Transmitters	GMW90 Series Carbon Dioxide, Humidity and Temperature Transmitters
			
INSTALLATION	Wall-mount	Wall-mount	Wall-mount
OUTPUT PARAMETERS	Relative humidity Temperature Dew point / frost point temperature Wet bulb temperature Enthalpy Mixing ratio Absolute humidity Dew point depression	Temperature	Carbon dioxide Relative humidity Temperature Dew point/frost point temperature Wet bulb temperature Enthalpy Mixing ratio Absolute humidity Dew point depression
OUTPUT OPTIONS	4...20 mA loop powered 0...5/0...10 V, optional relay Modbus RTU	4...20 mA loop powered 0...5/0...10 V, optional relay	4...20 mA 0...5/0...10 V Modbus RTU
DETAILS	IP30 enclosure Display option Optional decorative covers User exchangeable measurement modules available Accuracy $\pm 1.7\%$ Rh, $\pm 0.2^\circ\text{C}$ ($\pm 0.36^\circ\text{F}$) Calibration certificate included	IP30 enclosure Display option Optional decorative covers User exchangeable measurement modules available Accuracy $\pm 0.2^\circ\text{C}$ ($\pm 0.36^\circ\text{F}$) Calibration certificate included	IP30 enclosure Display option Optional LED CO ₂ indication Optional decorative covers User exchangeable measurement modules available CO ₂ measurement range 0...5 000 ppm Accuracy $\pm 1.7\%$ Rh, $\pm 0.2^\circ\text{C}$ ($\pm 0.36^\circ\text{F}$) ± 50 ppm at 1000 ppm CO ₂ Calibration certificate included
READ MORE	DATASHEET	DATASHEET	DATASHEET

	HMW82/83 Humidity and Temperature Transmitters	TMW82 Temperature Transmitters	GMW83/84/86 Carbon Dioxide, Humidity and Temperature Transmitters
			
INSTALLATION	Wall-mount	Wall-mount	Wall-mount
OUTPUT PARAMETERS	Relative humidity Temperature	Temperature	Carbon dioxide Relative humidity Temperature
OUTPUT OPTIONS	4...20 mA loop powered 0...10 V	4...20 mA loop powered	4...20 mA 0...10 V
DETAILS	IP30 enclosure Accuracy $\pm 3\%$ Rh, $\pm 0.5^\circ\text{C}$ ($\pm 0.9^\circ\text{F}$)	IP30 enclosure Accuracy $\pm 0.5^\circ\text{C}$ ($\pm 0.9^\circ\text{F}$)	IP30 enclosure Display option (GMW83) LED CO ₂ indication (GMW83A) Range: 0...2000 ppm Accuracy ± 60 ppm at 1000 ppm CO ₂ , $\pm 3\%$ Rh, $\pm 0.5^\circ\text{C}$ ($\pm 0.9^\circ\text{F}$)
READ MORE	DATASHEET	DATASHEET	DATASHEET







Watch the installation and calibration video of the HMW90 series to learn how easy it is: www.vaisala.com/HMW90

WALL TRANSMITTERS

Perfect for demanding environments

The unique, cutting edge Vaisala sensor technologies are manifested throughout our versatile range of products. The measurement technology is known for superior performance even in challenging environments. Prestigious for unrivalled performance and reliability, our sensors and transmitters stand out for low total cost of ownership.

	HMT120/130 Series Humidity and Temperature Transmitters	TMT120/130 Series Temperature Transmitters	HMW110 Series Humidity and Temperature Transmitters
			
INSTALLATION	Wall-mount, duct-mount, outdoor	Wall-mount, duct-mount, outdoor	Wall-mount
OUTPUT PARAMETERS	Relative humidity Temperature Dew point / frost point temperature Wet bulb temperature Enthalpy Mixing ratio	Temperature	Relative humidity Temperature Dew point temperature Wet bulb temperature Enthalpy
OUTPUT OPTIONS	4...20 mA loop powered 0...1/0...5/0...10 V	4...20 mA loop powered 0...1/0...5/0...10 V	4...20 mA loop powered Modbus RTU
DETAILS	IP65 enclosure Available with fixed and remote probe Interchangeable probes Accessories for duct/outdoor installation Accuracy $\pm 1.5\%$ Rh, ± 0.1 °C (± 0.18 °F) Calibration certificate included Display option	IP65 enclosure Interchangeable probes Accuracy ± 0.1 °C (± 0.18 °F) Calibration certificate included Display option	IP65 enclosure Accuracy $\pm 2\%$ Rh, ± 0.2 °C (± 0.36 °F) Calibration certificate included Display option Optional M12 connector available
READ MORE	DATASHEET	DATASHEET	DATASHEET

	TMW110 Series Temperature Transmitters	HMW88/89 Humidity and Temperature Transmitters	TMW88 Temperature Transmitters	GMW87/88 Carbon Dioxide Transmitters
				
INSTALLATION	Wall-mount	Wall-mount	Wall-mount	Wall-mount
OUTPUT PARAMETERS	Temperature	Relative humidity Temperature Dew point temperature Wet bulb temperature Enthalpy	Temperature	Carbon dioxide
OUTPUT OPTIONS	4...20 mA loop powered Modbus RTU	4...20 mA loop powered 0...10 V	4...20 mA loop powered	4...20 mA, 0...10 V Modbus RTU (GMW87)
DETAILS	IP65 enclosure Accuracy ± 0.2 °C (± 0.36 °F) Calibration certificate included Display option Optional M12 connector available	IP65 enclosure Accuracy $\pm 3\%$ Rh, ± 0.3 °C (± 0.54 °F) Display option	IP65 enclosure Accuracy ± 0.3 °C (± 0.54 °F)	IP64 enclosure Range: 0...5000 ppm Accuracy ± 60 ppm at 1000 ppm CO ₂
READ MORE	DATASHEET	DATASHEET	DATASHEET	DATASHEET







UNIQUE SENSOR TECHNOLOGY INSIDE





The unique, cutting-edge Vaisala sensor technologies are manifested throughout our versatile range of products. Accuracy and long-term stability of Vaisala sensors is absolutely the best of class within the industry. When it comes to reliable measurements, Vaisala products are in the league of their own.

DUCT/IMMERSION TRANSMITTERS

Reliable measurements where it truly matters

When reliability matters, the measurements matter. Maintaining as-designed indoor conditions with minimized consumption of energy requires precision and reliability in every piece in the chain. Although influenced by many variables, eventually the control of your HVAC systems can be only as precise as your measurements are.





	HMD60 Series Humidity and Temperature Transmitters	TMD60 Series Temperature Transmitters	HMD110 Series Humidity and Temperature Transmitters	TMD110 Series Temperature Transmitters
				
INSTALLATION	Duct-mount	Duct-mount	Duct-mount	Duct-mount
OUTPUT PARAMETERS	Relative humidity Temperature Dew point temperature Wet bulb temperature Enthalpy Absolute humidity Mixing ratio	Temperature	Relative humidity Temperature Dew point temperature Wet bulb temperature Enthalpy	Temperature
OUTPUT OPTIONS	4...20 mA loop powered 0...10 V Modbus RTU BACnet MS/TP	4...20 mA loop powered	4...20 mA loop powered Modbus RTU	4...20 mA loop powered Modbus RTU
DETAILS	IP66 (NEMA4X) enclosure A robust metal enclosure Stainless steel probes Probe length options 25 cm and 10 cm (10" and 4") Accuracy $\pm 1.5\%$ Rh, ± 0.1 °C (± 0.18 °F) Calibration certificate included	IP66 (NEMA4X) enclosure A robust metal enclosure Stainless steel probes Probe length options 25 cm and 10 cm (10" and 4") Accuracy ± 0.1 °C (± 0.18 °F) Calibration certificate included	IP65 enclosure Accuracy $\pm 2\%$ Rh, ± 0.2 °C (± 0.36 °F) Calibration certificate included Display option	IP65 enclosure Accuracy ± 0.2 °C (± 0.36 °F) Calibration certificate included Display option
READ MORE	DATASHEET	DATASHEET	DATASHEET	DATASHEET

	GMD110 series Carbon Dioxide Transmitters	TMI110 series Temperature Transmitters	HMD82/83, TMD82 Humidity and Temperature Transmitters	PDT101 Differential Pressure Transmitters
				
INSTALLATION	Duct-mount	Immersion type (in thermowell), or duct-mount	Duct-mount	Wall-mount / DIN-rail
OUTPUT PARAMETERS	Carbon dioxide	Temperature	Relative humidity Temperature Dew point temperature Wet bulb temperature Enthalpy	Differential pressure (air)
OUTPUT OPTIONS	4...20 mA 0...10 V Modbus RTU	4...20 mA loop powered Modbus RTU	4...20 mA loop powered 0...10 V	4...20 mA 0...5/10 V
DETAILS	IP65 enclosure Accuracy ± 40 ppm CO2 Calibration certificate included	IP65 enclosure Accuracy ± 0.1 °C Probe lengths 100 / 150 / 200 mm Thermowells available Calibration certificate included Display option	IP65 enclosure Accuracy $\pm 3\%$ Rh, ± 0.3 °C (± 0.54 °F) Display option	IP40 enclosure Accuracy 0.4% / 1% of span Unidirectional/bidirectional options Optional pressure ranges Easy mounting
READ MORE	DATASHEET	DATASHEET	DATASHEET	DATASHEET

OUTDOOR AND WEATHER TRANSMITTERS

For all HVAC applications

Vaisala as a global leader in environmental and industrial measurements offers a unique selection of indoor and outdoor instruments for HVAC applications. The versatile outdoor and weather instruments provide the best possible information on prevailing outdoor conditions.

	HMS110 Series Humidity and Temperature Transmitters	HMS82/83 & TMS82 Humidity and Temperature Transmitters	GMP252 Carbon Dioxide Probe with DTR250 Radiation Shield	WXT530 Series Weather Transmitters
				
INSTALLATION	Outdoor model with integrated radiation shield	Outdoor model with integrated radiation shield	Outdoor model with radiation shield	Outdoor model with integrated radiation shield
OUTPUT PARAMETERS	Relative humidity Temperature Dew point temperature Wet bulb temperature Enthalpy	Relative humidity Temperature Dew point temperature Wet bulb temperature Enthalpy	Carbon dioxide	Air pressure Temperature Humidity Rainfall Wind speed Wind direction
OUTPUT OPTIONS	4...20 mA loop powered Modbus RTU	4...20 mA loop powered 0...10 V	4...20 mA 0...10 V Modbus RTU	Modbus RTU
DETAILS	Ingress protection IP65 Accuracy $\pm 2\%$ Rh, $\pm 0.2\text{ }^\circ\text{C}$ ($\pm 0.36\text{ }^\circ\text{F}$) Calibration certificate included	Ingress protection IP65 Accuracy $\pm 3\%$ Rh, $\pm 0.3\text{ }^\circ\text{C}$ ($\pm 0.54\text{ }^\circ\text{F}$)	CO ₂ measurement ranges: 0...2000/3000/ 5000 ppm Accuracy ± 40 ppm at 400 ppm CO ₂	Accuracy ± 0.5 hPa, $\pm 0.3\text{ }^\circ\text{C}$ ($\pm 0.54\text{ }^\circ\text{F}$), $\pm 3\%$ Rh, $\pm 3\%$ at 10 m/s
READ MORE	DATASHEET	DATASHEET	DATASHEET	DATASHEET

HANDHELD METERS

For spot-checking and calibration

Vaisala Indigo80 Handheld Indicator is an industrial-grade portable diagnostics tool. Accommodating up to two Vaisala measurement probes, Indigo80 is ideal for spotchecking and process monitoring, as well as for configuring, troubleshooting, calibrating, and adjusting Vaisala Indigo-compatible probes and transmitters.

FEATURES

- Dual-probe, high-accuracy portable diagnostics and data logging tool. Log up to a month's worth of measurement data.
- Industry standard USB-C interface for data uploads and battery charging. Lithium-ion battery provides a typical operation time of 10 hours.
- Robust, durable aluminum body is resistant to chemicals and dust.
- Multilingual, menu-based user interface available in 10 languages. View live measurement data as numbers or graphs.
- Intuitive user interface that guides the user if needed. Designed to be easy to use.

Indigo80 Handheld Indicator



OPERATING ENVIRONMENT

Temperature 20 ... +50 °C (4 ... +122 °F)
Humidity 20 ... 85 %RH, when Ta ≤ +40 °C (+104 °F)

MAX. NUMBER OF CONNECTED PROBES

2

DATA LOGGING CAPACITY

Up to 5.5 million real-time data values

LOGGING INTERVAL

1 s ... 12 h

LOGGING DURATION

1 min ... memory full

ALARM

Audible alarm function

SUPPORTED LANGUAGES

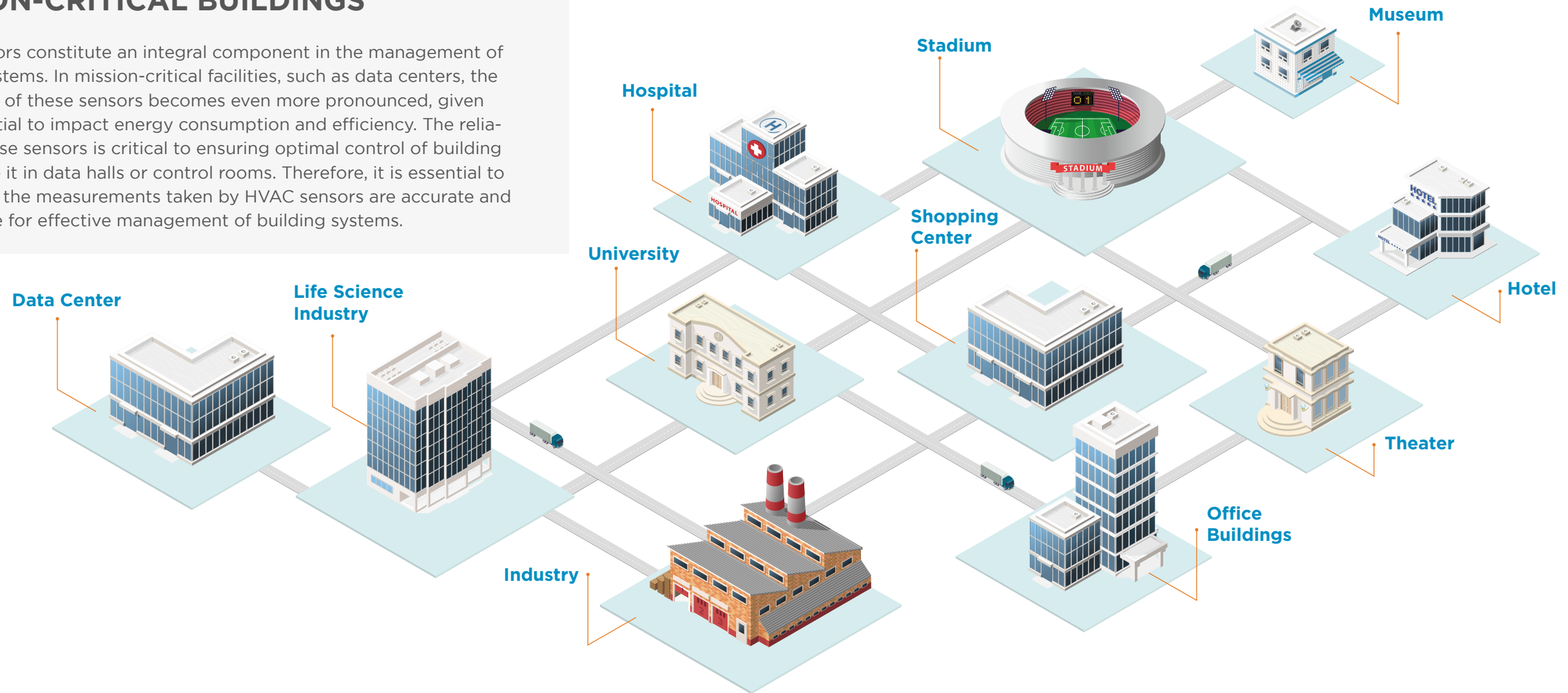
English, Chinese, Finnish, French, German, Italian, Japanese, Portuguese, Spanish, Swedish

READ MORE

[DATASHEET](#)

DATA CENTERS & MISSION-CRITICAL BUILDINGS

HVAC sensors constitute an integral component in the management of building systems. In mission-critical facilities, such as data centers, the importance of these sensors becomes even more pronounced, given their potential to impact energy consumption and efficiency. The reliability of these sensors is critical to ensuring optimal control of building systems, be it in data halls or control rooms. Therefore, it is essential to ensure that the measurements taken by HVAC sensors are accurate and dependable for effective management of building systems.



MANUFACTURING & INDUSTRIAL FACILITIES

Manufacturing facilities and industrial facilities require high standards for measurements. Optimizing processes through precisely controlled indoor environments will increase efficiency and eliminate waste and variation. It is necessary to have high-quality HVAC sensors in special spaces, such as clean rooms or labs, as well as throughout the facility and its control room.

COMMERCIAL BUILDINGS

In the realm of commercial buildings, reliable measurements play a critical role in ensuring optimal operations. Of paramount importance in these structures are energy efficiency, sustainability, as well as comfortable and healthy indoor conditions. This necessitates the use of high-reliability instruments with minimal drifting, as they serve to mitigate maintenance requirements and ensure smooth operation of all building systems. Failure to uphold these standards could result in suboptimal performance and significant energy wastage. Therefore, it is crucial to prioritize reliable measurements and invest in high-quality instruments to achieve optimal efficiency and minimize operational costs.

ABOUT VAISALA

Global coverage with LOCAL PRESENCE

As a global leader in industrial, weather and environmental measurements, we provide reliable, accurate and innovative products and solutions that enabling better decision-making, increased productivity, and improved safety and quality.

Customers all over the world and in a multitude of industries use our measurement solutions. Everywhere from forecasting weather and making sure it is safe for your flight to take off, to staying ahead of power outages or monitoring incubators for premature children in hospitals, you can find Vaisala's premium measurement solutions in action all over the world.

 [Find your local contact](#)

Vaisala's premium measurement solutions enhance safety, efficiency, and decision-making – for a sustainable future on our planet. The heart of Vaisala's sustainability lies in the positive impact of our products, as they help our customers, for example, to increase energy efficiency and reduce emissions.

Available ONLINE 24/7

Our products are easily available, any time, through the Vaisala Online Store. We have fast deliveries on all new instrument as well as spare part online orders. All instruments are made to order and calibrated just before shipment.

 store.vaisala.com



Free shipping

Fast, free deliveries on all new instrument & spare part online orders



Safe Payment

Easy and secure payments options



Calibration

All instruments are made to order and calibrated just before shipment



VAISALA
www.vaisala.com

Ref. B211277EN-M ©Vaisala 2023

This material is subject to copyright protection, with all copyrights retained by Vaisala and its individual partners. All rights 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.