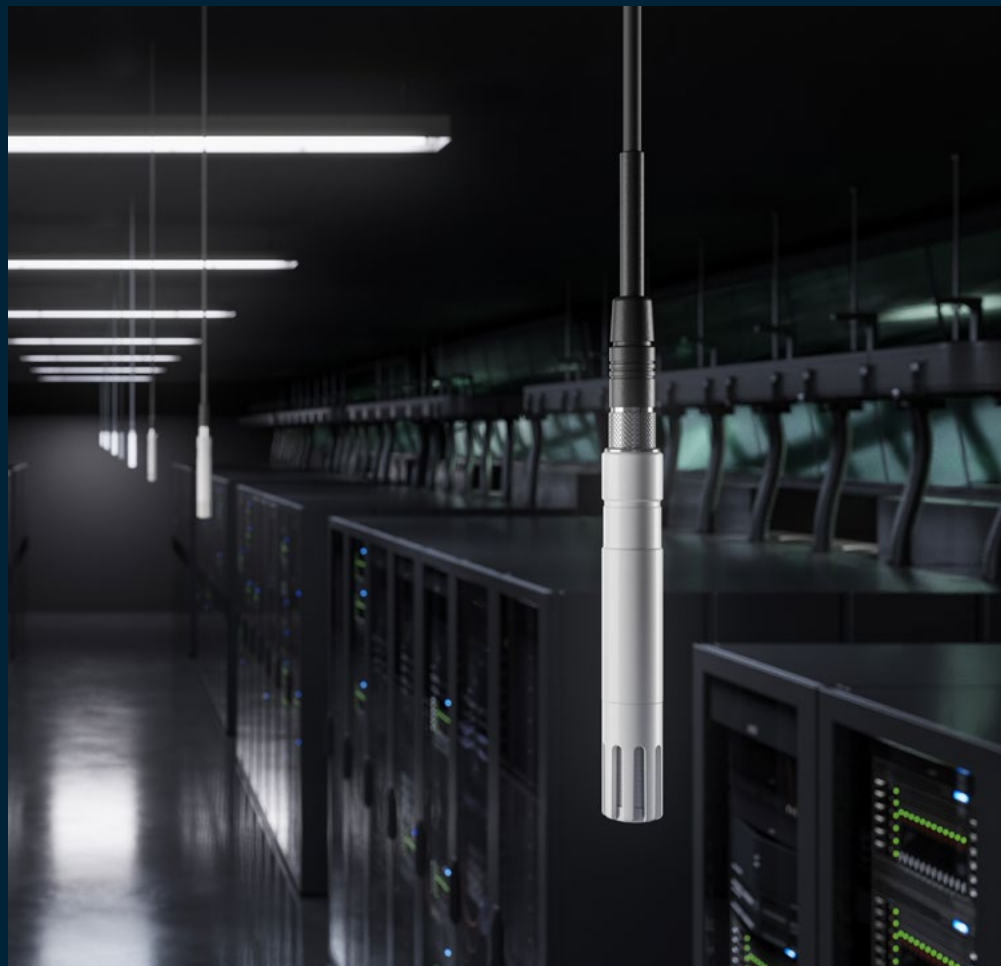


VAISALA

Sensors and transmitters for data centers

Catalogue





Excellence in measurements

When reliability matters, measurements matter. Creating and maintaining optimal indoor conditions depends on sensors that perform accurately and consistently every moment, over time. Controlled environments require precision in every part of the control loop. Ultimately, the precision of your systems and processes can only be as good as your measurements. The reliability of humidity, temperature, and other crucial parameters -indoors and outdoors - is among the key contributors to precisely controlled processes and indoor environments.

Vaisala is a global leader in environmental and industrial measurements. As a trusted provider of measurement instruments, we offer you peace of

mind. You can rest assured that our measurement devices deliver the highest reliability for your controlled processes.

We invite you to explore our portfolio - engineered to deliver dependable measurements for data centers with accuracy and ease.

» [How much can measurement accuracy impact on cooling energy consumption? Download our free insider's guide to know more!](#)

Selection for data centers



The unique, cutting edge Vaisala sensor technologies are manifested throughout our versatile range of products. Humidity measurement with Vaisala HUMICAP technology is known for superior performance even in challenging environments. All our transmitters have an exceptionally high reliability and excellent measurement stability. The products are easy to maintain throughout their long lifetime.

Vaisala's offering is a unique combination of outstanding outdoor and indoor measurement instruments. Our selection brings together world-renowned weather and outdoor transmitters and the top-quality measurement instruments used in monitoring and control of indoor environments.

Measurements in data centers must not fail. Sensors and transmitters of Vaisala are prestigious for their unrivalled performance and reliability, enabling precise and trustworthy controls of HVAC systems.

» How continuity is enabled in data centers with Vaisala sensors? [Read the blog post to learn more.](#)



Outdoor

- Outdoor temperature
- Outdoor humidity
- Barometric pressure
- Weather parameters



Indoor

- Indoor temperature & humidity
- Duct temperature & humidity
- Immersion temperature
- Differential pressure

When reliability is a priority



When reliability is a priority

When exceptional reliability and consistent quality are needed, we have the ideal solution for you. This is the new de facto selection for data centers that operate with high standards and require instrumentation they can trust.

This selection brings together the most essential high-precision measurement instruments designed for critical environments. The products deliver excellent accuracy, reliability, and long-term measurement stability.



ORIGO10 Wall transmitter

Versatile transmitter for Origo Probes
Outputs: 4-20 mA, 0-5/10 V, Modbus RTU, BACnet MS/TP
IP65 enclosure
Optional display
Exchangeable probe



ORIGO10 Duct transmitter

Versatile transmitter for XMP10 probes
Outputs: 4-20 mA, 0-5/10 V, Modbus RTU, BACnet MS/TP
IP65 enclosure
Optional display
Exchangeable probe



ORIGO PROBES Compact Measurement Probes

Compatible with Origo transmitter
Selection for professional use
XMP10: RH+T
TMP115: T
GMP250: CO₂
DMT143: Td



TMI110 Immersion Temperature Transmitter

Accuracy ± 0.1 °C (± 0.18 °F)
Outputs: 4-20 mA, Modbus RTU
Installed in a thermowell
Precise measurement of liquids
Very fast response time



HMD60/TMD60 Duct Humidity and Temperature Transmitter

Accuracy $\pm 1.5\%$ RH, ± 0.1 °C (± 0.18 °F)
Outputs: 4-20 mA, 0-10 V, Modbus RTU, BACnet MS/TP
Full metal body, IP66 enclosure
Proven accuracy even in harsh conditions



PDT101 Differential Pressure Transmitter

Accuracy: 0.4 % / 1 % of span
Outputs: 4-20 mA, 0-5 V, 0-10 V
Unidirectional/bidirectional options
Optional pressure ranges
Easy mounting



INDIGO500 Configurable Transmitter

Versatile transmitter for Indigo Probes
Outputs: 4-20 mA, 0-10 V, Modbus TCP/IP
Robust metal appearance
User friendly interface



INDIGO300 Pre-configured Transmitter

Common transmitter for single Indigo probe use
Outputs: 4-20 mA, 0-10 V
Robust metal appearance
User friendly interface



INDIGO PROBES Industrial Grade Measurement Probes

Compatible with Indigo transmitter
Wide selection for professional use
HMP1: Wall-mounted RH + T probe
HMP3: General purpose RH + T probe
HMP7: RH + T probe



WXT530 Weather Transmitter

Weather parameters: air pressure, temperature, humidity, rainfall, wind speed, wind direction
Output: Modbus RTU
Integrated radiation shield



WMT700 Ultrasonic Wind Sensor

Accuracy (speed): ± 0.1 m/s or 2% of reading
Accuracy (direction): ± 2 degrees
Outputs: current, voltage
Designed for professional use



PTB210 + SPH20 Digital Barometer + Static Pressure Heads

Total accuracy up to ± 0.25 hPa
Outputs: 0-2.5 V, 0-5 V
Designed for harsh outdoor conditions
Minimized wind effects

Origo10 series transmitters

Modular measurement solutions for HVAC applications

The Origo10 Series comprises a versatile selection of flexible, multi-purpose HVAC transmitters. Origo transmitters are designed for smooth, effortless operation and maintenance through exchangeable measurement probes and modules.

Featuring exceptionally high reliability and excellent longterm measurement stability, these modular devices are the ideal choice for buildings and critical spaces where precise and reliable control and monitoring of HVAC systems are essential.

Interchangeable measurement probes

The Origo10 series includes humidity, temperature, carbon dioxide, and dew point measurements models with interchangeable probes.

A wide selection of compatible probes is available to meet the requirements of different applications.

In particular, the XMP10 humidity and temperature probes provide multiple RH accuracy options - 1%, 1.5%, 2%, and 3% RH - allowing you to choose the level of measurement accuracy best suited to your application.

Origo10 transmitters are available as two main models with several output options.

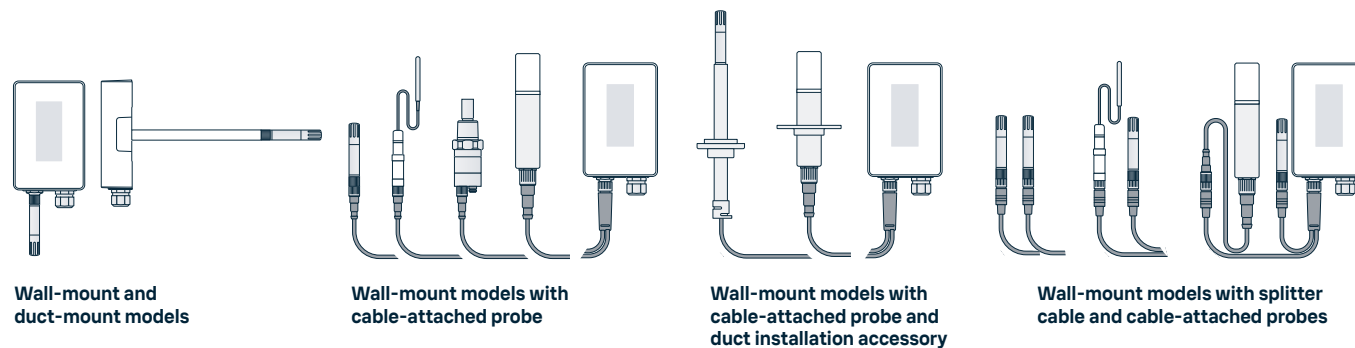
ORIGO10A

RH, T, CO₂, Td
3 x analog output
(4...20mA, 0...5/10V)
Modbus RTU
BACnet MS/TP
Relay output option
Binary input option
Two-probe option

ORIGO10L

RH, T
2 x analog output
(4...20mA,
loop powered)

RANGE OF PRODUCT CONFIGURATIONS



Precision with streamlined features



For excellent performance

We are pleased to introduce our world-class range of high-accuracy transmitters, designed to complement building automation systems even in the most demanding indoor environments and control applications.

Vaisala's measurement instruments are an ideal choice for data centers where reliability is essential, and budgets need to remain reasonable. Our products offer excellent long-term measurement stability, ensuring continued accuracy and enabling precise control year after year.



HMW110
Humidity and Temperature Transmitter, Wall-mounted
Accuracy $\pm 2\%$ RH, $\pm 0.2^\circ\text{C}$ ($\pm 0.36^\circ\text{F}$)
Outputs: 4-20 mA, Modbus RTU
IP65 enclosure, optional display
Durable design, minimized maintenance needs



TMW110
Temperature Transmitter, Wall-mounted
Accuracy $\pm 0.2^\circ\text{C}$ ($\pm 0.36^\circ\text{F}$)
Outputs: 4-20 mA, Modbus RTU
IP65 enclosure, optional display
Durable design, minimized maintenance needs



PDT101
Differential Pressure Transmitter
Accuracy: 0.4 % / 1 % of span
Outputs: 4-20 mA, 0-5 V, 0-10 V
Unidirectional/bidirectional options
Optional pressure ranges
Easy mounting



TMI110
Immersion Temperature Transmitter
Accuracy $\pm 0.1^\circ\text{C}$ ($\pm 0.18^\circ\text{F}$)
Outputs: 4-20 mA, Modbus RTU
Installed in a thermowell
Precise measurement of liquids
Very fast response time



HMD110
Duct Humidity and Temperature Transmitter
Accuracy $\pm 2\%$ RH, $\pm 0.2^\circ\text{C}$ ($\pm 0.36^\circ\text{F}$)
Outputs: 4-20 mA, Modbus RTU
IP65 enclosure, optional display
Durable design, easy to install



TMD110
Duct Temperature Transmitter
Accuracy $\pm 0.2^\circ\text{C}$ ($\pm 0.36^\circ\text{F}$)
Outputs: 4-20 mA, Modbus RTU
IP65 enclosure, optional display
Durable design, easy to install



HMW90
Room Humidity and Temperature Transmitter
Accuracy $\pm 1.7\%$ RH, $\pm 0.2^\circ\text{C}$ ($\pm 0.36^\circ\text{F}$)
Outputs: 4-20 mA, 0-10 V, Modbus RTU
Exchangeable measurement modules
Display with sliding cover



TMW90
Room Temperature Transmitter
Accuracy $\pm 0.2^\circ\text{C}$ ($\pm 0.36^\circ\text{F}$)
Outputs: 4-20 mA, 0-10 V
Exchangeable measurement modules
Display with sliding cover



GMW90R
Carbon Dioxide, Humidity and Temperature Transmitters
Accuracy $\pm 1.7\%$ Rh, $\pm 0.2^\circ\text{C}$ ($\pm 0.36^\circ\text{F}$)
Outputs: 4-20 mA, 0-10 V, Modbus RTU
Exchangeable measurement modules
Display with sliding cover



XMP10
Humidity and Temperature Probe
Accuracy: Up to $\pm 1\%$ Rh, $\pm 0.1^\circ\text{C}$ ($\pm 0.18^\circ\text{F}$)
Outputs: 0-5 V, Modbus RTU
IP65 housing, M8 connector
Miniature probe-style transmitter



HMS110
Outdoor Humidity and Temperature Transmitter
Accuracy $\pm 2\%$ RH, $\pm 0.2^\circ\text{C}$ ($\pm 0.36^\circ\text{F}$)
Outputs: 4-20 mA, Modbus RTU
Integrated rain / solar radiation shield
Tolerant of high winds and icing conditions



WXT530
Weather Transmitter
Weather parameters: air pressure, temperature, humidity, rainfall, wind speed, wind direction
Output: Modbus RTU
Integrated radiation shield

Compact options for daisy-chaining

When space is limited, the miniature-size measurement probes offer a compact solution for critical sites. The probes connect via Modbus RTU and can be daisy-chained for easy installation.

Optional accessories are also available for convenience, including magnetic probe attachment units

attachment units and plug & play cables of various lengths, with standard M8 quick connectors.

» Miniature-size measurement probes are a compact solution for critical sites. [Read more about Vaisala's humidity sensors.](#)



XMP10 Humidity and Temperature Probe

Accuracy options up to $\pm 1\%$ RH, $\pm 0.1^\circ\text{C}$ ($\pm 0.18^\circ\text{F}$)
Ideal for rough conditions
IP65 metal housing
High chemical tolerance
Excellent measurement stability
Length 71 mm (2.8 in), diameter 12 mm (0.47 in)

1:1 (71 mm)



XMP10 Humidity and Temperature Probe

Accuracy options up to $\pm 1\%$ RH, $\pm 0.1^\circ\text{C}$ ($\pm 0.18^\circ\text{F}$)
Faster thermal response time
IP65 plastic enclosure
High chemical tolerance
Excellent measurement stability
Length 71 mm (2.8 in), diameter 12 mm (0.47 in)

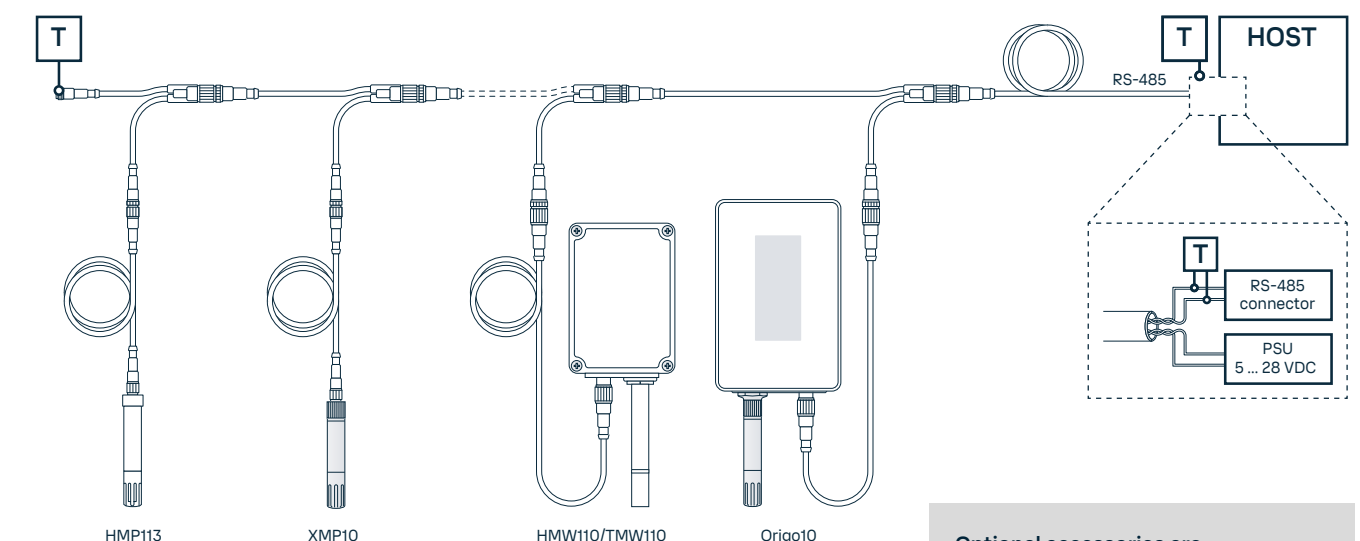
1:1 (71 mm)

The modular sensor chain solution for mission-critical buildings

What cannot be measured cannot be controlled. Vaisala's modular sensor chain solution elevates your measurement system to new levels of flexibility and productivity. To create a modular solution for critical buildings, you can choose temperature and humidity transmitters with optional displays, as well as miniature measurement probes.

Transmitters and probes are easily connected and daisy-chained using standard M12 or M8 connectors. Installation is further simplified with optional accessories, including magnetic probe attachment units and plug-and-play cables in various lengths.

Sensor Chain Example



Optional accessories are available for convenience:

- Cable splitter
- Magnetic probe attachment units
- Plug & play cables of various lengths with standard connectors

Life cycle services

Vaisala is your trusted lifecycle services partner

As the manufacturer we offer more than just calibration of your Vaisala instruments – we support you throughout your entire measurement journey with high-quality services that minimize total cost of ownership and maximize long-term measurement stability.

Our lifecycle services cover every stage of the solution lifecycle, from configuration and technical support to calibrations and long-term care agreements for ultimate peace of mind. With all our services, you benefit from vast global expertise delivered at a local level.

Whatever your business drivers or regulatory requirements, you can count on our expert team to provide timely, professional service using their deep knowledge of your equipment and processes.

» [Discover Vaisala's services](#)



Sustainability in the heart of our business

Vaisala's premium measurement solutions enhance safety, efficiency, and decisionmaking – 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.

» [Learn more about our sustainability.](#)

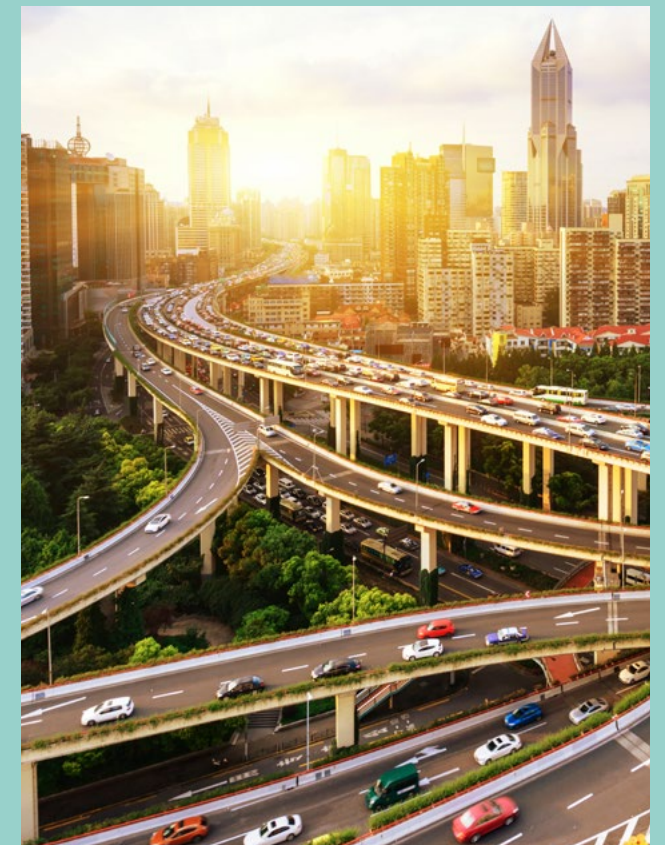


Global coverage with local presence

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

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