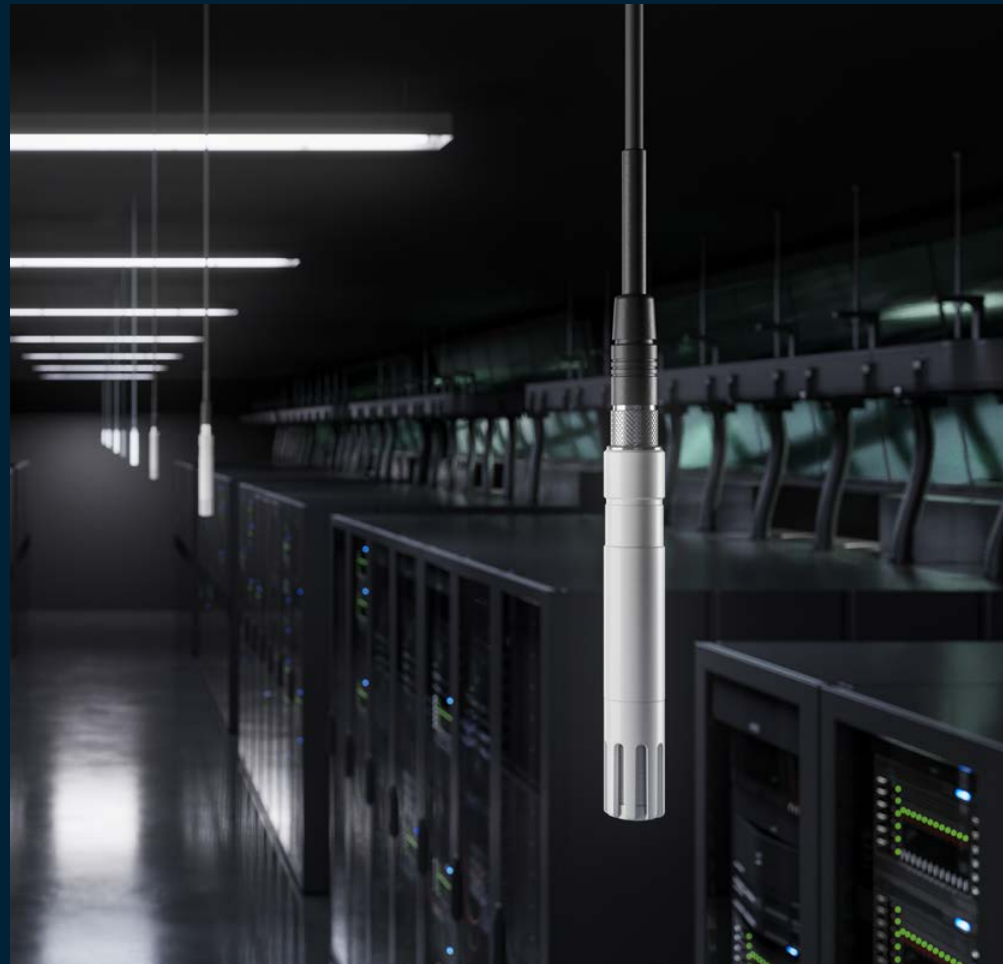VAISALA

Sensors and transmitters for data centers

Catalogue

Excellence in measurements

When reliability matters, the measurements matter. Creation of as-designed indoor conditions with minimized consumption of energy is not an easy task. It requires precision and reliability in every piece in the chain. Although influenced by many variables, eventually the control of your HVAC processes can be only as precise as your measurements are. Measurements of humidity, temperature, and other crucial parameters both indoors and outdoors, are among the key contributors to precisely controlled indoor environment.
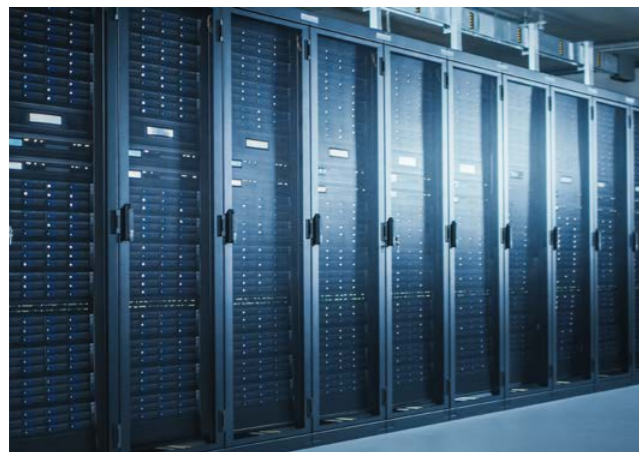
Vaisala is a global leader in environmental and industrial measurements. As the trusted provider of measurement instruments, we offer you peace of mind. You can rest assured that our measurement devices will enable the highest precision and reliability for your controlled processes.

Let us introduce our signature collections of high-quality instruments for data centers, for your convenience.

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

Selection for data centers

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.

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.

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

For the premium performance

When the highest possible quality and reliability is required, we have the perfect solution for you. This is the new "de facto" selection for data centers applying the highest standards.

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

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

HMT120/130
Humidity and Temperature Transmitter, Multipurpose

Accuracy ±1.5% RH, ±0.1 °C (±0.18 °F)
Outputs: 4-20 mA, 0-10 V
Exchangeable measurement probes
IP65 enclosure, optional display
Ideal for demanding conditions and processes

TMT120/130
Temperature Transmitter, Multipurpose

Accuracy ±0.1 °C (±0.18 °F)
Outputs: 4-20 mA, 0-10 V
Exchangeable measurement probes
IP65 enclosure, optional display
Ideal for demanding conditions and processes

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 ±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
Duct Humidity and Temperature Transmitter

Accuracy ±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

TMD60
Duct Temperature Transmitter

Accuracy ±0.1 °C (±0.18 °F)
Output: 4-20 mA
Full metal body, IP66 enclosure
Proven accuracy even in harsh conditions

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

❯❯ Read more about the Indigo ecosystem and the interchangeable measurement probes.

Precision with streamlined features

We are pleased to introduce our world-class repertoire of high-accuracy transmitters, complementing the building automation system even in the most demanding indoor environments and their control needs.

Vaisala's measurement instruments are the perfect fit for data centers with reliability as a priority, and within a reasonable budget.

The products come with excellent long-term stability of measurement, which ensures accuracy of measurement and precise controls also in the long term.

HMT120/130
Humidity and Temperature Transmitter, Multipurpose

Accuracy ±1.5% RH, ±0.1 °C (±0.18 °F)
Outputs: 4-20 mA, 0-10 V
Exchangeable measurement probes
IP65 enclosure, optional display
Ideal for demanding conditions and processes

TMT120/130
Temperature Transmitter, Multipurpose

Accuracy ±0.1 °C (±0.18 °F)
Outputs: 4-20 mA, 0-10 V
Exchangeable measurement probes
IP65 enclosure, optional display
Ideal for demanding conditions and processes

HMW90
Room Humidity and Temperature Transmitter

Accuracy ±1.7% RH, ±0.2 °C (±0.36 °F)
Outputs: 4-20 mA, 0-10 V, Modbus RTU
Exchangeable measurement modules
Display with sliding cover

HMD110
Duct Humidity and Temperature Transmitter

Accuracy ±2% RH, ±0.2 °C (±0.36 °F)
Outputs: 4-20 mA, Modbus RTU
IP65 enclosure, optional display
Durable design, easy to install

TMD110
Duct Temperature Transmitter

Accuracy ±0.2 °C (±0.36 °F)
Outputs: 4-20 mA, Modbus RTU
IP65 enclosure, optional display
Durable design, easy to install

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

HMW110
Humidity and Temperature Transmitter, Wall-mounted

Accuracy ±2% RH, ±0.2 °C (±0.36 °F)
Outputs: 4-20 mA, Modbus RTU
IP65 enclosure, optional display
Durable design, minimized maintenance needs

TMW110
Temperature Transmitter, Wall-mounted

Accuracy ±0.2 °C (±0.36 °F)
Outputs: 4-20 mA, Modbus RTU
IP65 enclosure, optional display
Durable design, minimized maintenance needs

HMS110
Outdoor Humidity and Temperature Transmitter

Accuracy ±2% RH, ±0.2 °C (±0.36 °F)
Outputs: 4-20 mA, Modbus RTU
Integrated rain / solar radiation shield
Tolerant of high winds and icing conditions

TMW90
Room Temperature Transmitter

Accuracy ±0.2 °C (±0.36 °F)
Outputs: 4-20 mA, 0-10 V
Exchangeable measurement modules
Display with sliding cover

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

WXT530
Weather Transmitter

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

Compact options for rack installations

When the space is limited, the miniature-size measurement probes form a compact solution for critical sites. Probes are connected through Modbus RTU and can be daisy-chained for easy installation.

Optional accessories are also available for convenience, including magnetic probe attachment units and plug & play cables of various lengths, with standard M8 quick connectors.

» Miniature-size measurement probes area compact solution for critical sites. Read more about Vaisala's humidity sensors.

HMP110 | HMP110T
Humidity and Temperature Probe

Accuracy ±1.5% RH, ±0.1 ºC (±0.18 ºF)
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)

HMP113
Humidity and Temperature Probe

Accuracy ±1.5% RH, ±0.1 ºC (±0.18 ºF)
Fast thermal response time
IP54 plastic enclosure
High chemical tolerance
Excellent measurement stability
Length 71 mm (2.8 in), diameter 12 mm (0.47 in)

1:1 (71 mm)

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

vaisala.com