Unrivaled performance

Vaisala is a global leader in environmental and industrial measurements. Our sensors and transmitters are renowned for their unrivaled performance, reliable results, and low total cost of ownership. You can rest assured that our products will ensure the highest precision and reliability for your controlled processes.

For cutting-edge solutions

When reliability matters, sensors matter. Control of your HVAC systems and processes, and consequently, your building’s performance, can only be as precise and reliable as your measurements. The more critical your building, the more important your sensors become. Precision and reliability are required in every link of the chain, starting with sensors.

Sustainable buildings

Sustainability in buildings means taking every measure to improve energy efficiency and reduce emissions of the facility. Accurate sensors with reliable measurement capabilities are essential for optimizing building performance and improving the energy efficiency of the facility. Additionally, precise measurements also support achieving optimal indoor conditions for various types of spaces and creating more efficient and comfortable indoor environments.

Peace of mind throughout the life cycle

As the trusted provider of measurement instruments, we offer you peace of mind. Our top-of-the-line products offer an exceptionally long lifetime, require minimal maintenance, and provide excellent measurement stability. Our transmitters for building automation are covered by a 5-year warranty. Although sensors represent a small investment, it is a strategic one with the potential to unlock huge long-term value.

Excellence in measurements
### HMW90 SERIES
- **Humidity and Temperature Transmitters**

### TMW90 SERIES
- **Temperature Transmitters**

### GMW90 SERIES
- **Carbon Dioxide, Humidity and Temperature Transmitters**

#### INSTALLATION
- Wall-mount

#### OUTPUT PARAMETERS
- **HMW90 SERIES**
  - Relative humidity
  - Temperature
  - Dew point / frost point temperature
  - Wet bulb temperature
  - Enthalpy
  - Mixing ratio
  - Absolute humidity
  - Dew point depression

- **TMW90 SERIES**
  - Temperature
  - Carbon dioxide
  - Relative humidity
  - Temperature
  - Dew point/frost point temperature
  - Wet bulb temperature
  - Enthalpy
  - Mixing ratio
  - Absolute humidity
  - Dew point depression

- **GMW90 SERIES**
  - Relative humidity
  - Temperature
  - Dew point/frost point temperature
  - Wet bulb temperature
  - Enthalpy
  - Mixing ratio
  - Absolute humidity
  - Dew point depression

#### OUTPUT OPTIONS
- **HMW90 SERIES**
  - 4...20 mA loop powered
  - 0...10 V, optional relay
  - Modbus RTU

- **TMW90 SERIES**
  - 4...20 mA loop powered
  - 0...10 V
  - 4...20 mA

- **GMW90 SERIES**
  - 4...20 mA loop powered
  - 0...10 V
  - 4...20 mA

#### DETAILS
- **HMW90 SERIES**
  - **Accuracy** ±1.7% Rh, ±0.2°C (±0.36 °F)
  - **Display option**
  - **IP30 enclosure**
  - **Calibration certificate included**

- **TMW90 SERIES**
  - **Temperature**
  - **Accuracy** ±0.2°C (±0.36 °F)
  - **Display option**
  - **IP30 enclosure**
  - **Calibration certificate included**

- **GMW90 SERIES**
  - **Accuracy** ±1.7% Rh, ±0.2°C (±0.36 °F)
  - **Temperature**
  - **Accuracy** ±50 ppm at 1000 ppm CO₂
  - **CO₂ range** 0...2000 ppm
  - **Display option** (GMW83)
  - **LED CO₂ indication option (GMW83A)**
  - **IP30 enclosure**

#### READ MORE
- [DATASHEET](#)
- [DATASHEET](#)
- [DATASHEET](#)

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### HMW82/83
- **Humidity and Temperature Transmitters**

### TMW82
- **Temperature Transmitters**

### GMW83/84/86
- **Carbon Dioxide, Humidity and Temperature Transmitters**

#### INSTALLATION
- Wall-mount

#### OUTPUT PARAMETERS
- **HMW82/83**
  - Relative humidity
  - Temperature

- **TMW82**
  - Temperature

- **GMW83/84/86**
  - Carbon dioxide
  - Relative humidity
  - Temperature

#### OUTPUT OPTIONS
- **HMW82/83**
  - 4...20 mA loop powered
  - 0...10 V

- **TMW82**
  - 4...20 mA loop powered
  - 0...10 V

- **GMW83/84/86**
  - 4...20 mA

#### DETAILS
- **HMW82/83**
  - **Accuracy** ±3% Rh, ±0.5 °C (±0.9 °F)
  - **Display option**
  - **IP30 enclosure**

- **TMW82**
  - **Accuracy** ±0.5 °C (±0.9 °F)
  - **IP30 enclosure**

- **GMW83/84/86**
  - **Accuracy** ±60 ppm at 1000 ppm CO₂
  - **Temperature**
  - **Accuracy** ±3% Rh, ±0.5 °C (±0.9 °F)
  - **CO₂ range** 0...2000 ppm
  - **Display option** (GMW83)
  - **LED CO₂ indication option (GMW83A)**
  - **IP30 enclosure**

#### READ MORE
- [DATASHEET](#)
- [DATASHEET](#)
- [DATASHEET](#)

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### Room transmitters

**Accuracy that lasts.**

Future-proof design combined with unbeatable measurement stability – the secret of low total cost of ownership of our products.
## Wall Transmitters

Transmitters designed for demanding environments - prestigious for reliability and unrivaled measurement performance.

### HMT120/130 Series
- **Humidity and Temperature Transmitters**
- **Installation:** Wall-mount, duct-mount, outdoor
- **Output Parameters:**
  - Relative humidity
  - Temperature
  - Dew point / frost point temperature
  - Wet bulb temperature
  - Enthalpy
  - Mixing ratio
- **Details:**
  - Accuracy: ±1.5% Rh, ±0.1 °C (±0.18 °F)
  - Display option: Interchangeable probes, Cable probe option, Duct mounting kit option, Calibration certificate
- **Options:**
  - 4…20 mA loop powered
  - 0…1/0…5/0…10 V
- **Datashheet**

### TMT120/130 Series
- **Temperature Transmitters**
- **Installation:** Wall-mount, duct-mount, outdoor
- **Output Parameters:**
  - Temperature
  - Dew point temperature
  - Wet bulb temperature
  - Enthalpy
- **Details:**
  - Accuracy: ±0.1 °C (±0.18 °F)
  - Display option: Interchangeable probes, Cable probe option, Duct mounting kit option, Calibration certificate
- **Options:**
  - 4…20 mA loop powered
  - 0…1/0…5/0…10 V
- **Datashheet**

### HMW110 Series
- **Humidity and Temperature Transmitters**
- **Installation:** Wall-mount
- **Output Parameters:**
  - Relative humidity
  - Temperature
  - Dew point temperature
  - Wet bulb temperature
  - Enthalpy
- **Details:**
  - Accuracy: ±2% Rh, ±0.2 °C (±0.36 °F)
  - Display option: Interchangeable probes, IP65 enclosure, M12 connector option, Calibration certificate
- **Options:**
  - 4…20 mA loop powered
  - Modbus RTU
- **Datashheet**

### TMW110 Series
- **Temperature Transmitters**
- **Installation:** Wall-mount
- **Output Parameters:**
  - Temperature
  - Dew point temperature
  - Wet bulb temperature
  - Enthalpy
- **Details:**
  - Accuracy: ±0.3 °C (±0.54 °F)
  - Display option: IP65 enclosure
  - Calibration certificate
- **Options:**
  - 4…20 mA loop powered
  - Modbus RTU
- **Datashheet**

### HMW88/89 Series
- **Humidity and Temperature Transmitters**
- **Installation:** Wall-mount, duct-mount, outdoor
- **Output Parameters:**
  - Relative humidity
  - Temperature
  - Dew point temperature
  - Wet bulb temperature
  - Enthalpy
- **Details:**
  - Accuracy: ±3% Rh, ±0.3 °C (±0.54 °F)
  - Display option: IP65 enclosure
  - Calibration certificate
- **Options:**
  - 4…20 mA loop powered
  - 0…10 V
- **Datashheet**

### TMW88 Series
- **Temperature Transmitters**
- **Installation:** Wall-mount, duct-mount, outdoor
- **Output Parameters:**
  - Temperature
  - Dew point temperature
  - Wet bulb temperature
  - Enthalpy
- **Details:**
  - Accuracy: ±0.3 °C (±0.54 °F)
  - Display option: IP65 enclosure
- **Options:**
  - 4…20 mA loop powered
  - Modbus RTU
- **Datashheet**

### GMW87/88 Series
- **Carbon Dioxide Transmitters**
- **Installation:** Wall-mount
- **Output Parameters:**
  - Temperature
  - Carbon dioxide
- **Details:**
  - Accuracy: ±60 ppm at 1000 ppm CO2, CO2 range 0…5000 ppm
  - Display option: IP64 enclosure
- **Options:**
  - 4…20 mA, 0…10 V Modbus RTU (GMW87)
- **Datashheet**

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**When reliability is a priority.**

Transmitters designed for demanding environments - prestigious for reliability and unrivaled measurement performance.
## Duct/immersion transmitters

**For the premium performance.**

With our top-of-the-line sensors you can always trust the measurement. It is the best possible input to your control loop.

### GMD110 SERIES
**Carbon Dioxide Transmitters**

- **Installation:** Duct-mount
- **Duct-mount**
- **Duct-mount**
- **Duct-mount**
- **For the premium performance.**
  With our top-of-the-line sensors you can always trust the measurement. It is the best possible input to your control loop.

### TMD110 SERIES
**Temperature Transmitters**

- **For the premium performance.**
  With our top-of-the-line sensors you can always trust the measurement. It is the best possible input to your control loop.

### HMD110 SERIES
**Humidity and Temperature Transmitters**

- **For the premium performance.**
  With our top-of-the-line sensors you can always trust the measurement. It is the best possible input to your control loop.

### TMD60 SERIES
**Temperature Transmitters**

- **For the premium performance.**
  With our top-of-the-line sensors you can always trust the measurement. It is the best possible input to your control loop.

### HMD60 SERIES
**Humidity and Temperature Transmitters**

- **For the premium performance.**
  With our top-of-the-line sensors you can always trust the measurement. It is the best possible input to your control loop.

### TMD101 SERIES
**Differential Pressure Transmitters**

- **For the premium performance.**
  With our top-of-the-line sensors you can always trust the measurement. It is the best possible input to your control loop.

### INSTALLATION

<table>
<thead>
<tr>
<th>GMD110 SERIES</th>
<th>TMD110 SERIES</th>
<th>HMD110 SERIES</th>
<th>TMD60 SERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duct-mount</td>
<td>Duct-mount</td>
<td>Duct-mount</td>
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</tbody>
</table>

### OUTPUT PARAMETERS

<table>
<thead>
<tr>
<th>GMD110 SERIES</th>
<th>TMD110 SERIES</th>
<th>HMD110 SERIES</th>
<th>TMD60 SERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative humidity</td>
<td>Temperature</td>
<td>Relative humidity</td>
<td>Temperature</td>
</tr>
<tr>
<td>Temperature</td>
<td>Dew point temperature</td>
<td>Wet bulb temperature</td>
<td>Enthalpy</td>
</tr>
<tr>
<td>Absolute humidity</td>
<td>Mixing ratio</td>
<td>Temperature</td>
<td>Dew point temperature</td>
</tr>
<tr>
<td>Wet bulb temperature</td>
<td>Enthalpy</td>
<td>Temperature</td>
<td>Dew point temperature</td>
</tr>
<tr>
<td>Enthalpy</td>
<td>Temperature</td>
<td>Dew point temperature</td>
<td>Wet bulb temperature</td>
</tr>
</tbody>
</table>

### OUTPUT OPTIONS

<table>
<thead>
<tr>
<th>GMD110 SERIES</th>
<th>TMD110 SERIES</th>
<th>HMD110 SERIES</th>
<th>TMD60 SERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>4...20 mA loop powered</td>
<td>4...20 mA loop powered</td>
<td>Modbus RTU</td>
<td>Modbus RTU</td>
</tr>
<tr>
<td>0...10 V</td>
<td>4...20 mA loop powered</td>
<td>Modbus RTU</td>
<td>Modbus RTU</td>
</tr>
<tr>
<td>0...10 V</td>
<td>4...20 mA loop powered</td>
<td>Modbus RTU</td>
<td>Modbus RTU</td>
</tr>
<tr>
<td>0...10 V</td>
<td>4...20 mA loop powered</td>
<td>Modbus RTU</td>
<td>Modbus RTU</td>
</tr>
</tbody>
</table>

### DETAILS

<table>
<thead>
<tr>
<th>GMD110 SERIES</th>
<th>TMD110 SERIES</th>
<th>HMD110 SERIES</th>
<th>TMD60 SERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy ±1.5% Rh, ±0.1 °C (±0.18 °F)</td>
<td>Accuracy ±0.1 °C (±0.18 °F)</td>
<td>Metal enclosure &amp; probe</td>
<td>Metal enclosure &amp; probe</td>
</tr>
<tr>
<td>Metal enclosure &amp; probe</td>
<td>IP66 (NEMA4X) enclosure</td>
<td>Optional probe lengths 25 cm / 10 cm (10” / 4”)</td>
<td>Calibration certificate</td>
</tr>
<tr>
<td>Calibration certificate</td>
<td>Accuracy ±2% Rh, ±0.2 °C (±0.36 °F)</td>
<td>Display option</td>
<td>IP65 enclosure</td>
</tr>
<tr>
<td>Display option IP65 enclosure</td>
<td>Calibration certificate</td>
<td>Accurancy ±0.2 °C (±0.36 °F)</td>
<td>Accuracy ±0.1 °C (±0.36 °F)</td>
</tr>
<tr>
<td>Calibration certificate</td>
<td>Accuracy ±0.1 °C</td>
<td>Probe lengths 100/150/200 mm</td>
<td>Optional probe lengths 25 cm / 10 cm (10” / 4”)</td>
</tr>
<tr>
<td>Calibration certificate</td>
<td>IP66 enclosure</td>
<td>Calibration certificate</td>
<td>Calibration certificate</td>
</tr>
<tr>
<td>Calibration certificate</td>
<td>Accuracy ±3% Rh, ±0.3 °C (±0.54 °F)</td>
<td>Display option</td>
<td>IP65 enclosure</td>
</tr>
<tr>
<td>Display option IP65 enclosure</td>
<td>Calibration certificate</td>
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</tr>
</tbody>
</table>

### READ MORE

- **GMD110 SERIES**
- **TMD110 SERIES**
- **HMD110 SERIES**
- **TMD60 SERIES**

- **DATASHEET**
- **DATASHEET**
- **DATASHEET**
- **DATASHEET**
Outdoor and weather transmitters

<table>
<thead>
<tr>
<th>HMS110 SERIES</th>
<th>HMS82/83 &amp; TMS82</th>
<th>GMP252</th>
<th>WXT530 SERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity and Temperature Transmitters</td>
<td>Humidity and Temperature Transmitters</td>
<td>Carbon Dioxide Probe with DTR250 Radiation Shield</td>
<td>Weather Transmitters</td>
</tr>
</tbody>
</table>

**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
- 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**
- Accuracy ±2% Rh, ±0.2 °C (±0.36 °F) IP65 rating Calibration certificate
- Accuracy ±3% Rh, ±0.3 °C (±0.54 °F) IP65 rating
- Accuracy ±40 ppm at 400 ppm CO2 CO2 range
- 0...3000/3000/5000 ppm
- Accuracy ±0.5 hPa, ±0.3 °C (±0.54 °F), ±3% Rh, ±3% at 10 m/s

Wireless monitoring system

Jade Smart Cloud

Vaisala Jade Smart Cloud combines high-class industrial measurements with easy-to-use cloud-based remote monitoring to enable new levels of competence and flexibility for professionals.

**System hardware**

The Jade Smart Cloud hardware selection contains data loggers, access points, and measurement probes. Simply choose the number of measurement points you want, add the probes to match, and start measuring. The system is always delivered ready to use.

**Jade Smart Cloud application**

Get insights easily in real-time. You can choose to see an overview of readings from all your connected loggers or drill down to view data from a specific site or measurement group. Accessing the system couldn’t be easier – all you need is a laptop, tablet, or smartphone with an internet connection.

» Vaisala.com/jade
Measurement solutions where it truly matters

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.

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. It is crucial to prioritize reliable measurements and invest in high-quality instruments to achieve optimal efficiency and minimize operational costs.

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.
Sustainability in the heart of our business

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.

» 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.