

VORTORO®

In Measurement We Trust

Humidity & Temperature Sensor



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VORTORQ specializes in technical customization, offering tailor-made temperature and humidity measurement solutions for a wide range of applications. From manufacturing to research, accuracy and reliability are critical for achieving consistent results. Drawing on years of practical experience and technical know-how,

VORTORQ develops solutions designed to perform under diverse conditions. By working closely with system designers, our engineers focus on the details that matter most—striking the right balance between performance, durability, and cost. Whether in tough industrial environments or precise laboratory settings, **VORTORQ** delivers customized monitoring solutions that give you confidence in every measurement.

Applications



Lithium Battery Production



Pharmaceutical Industry



Aerospace Low Altitude Industry



Laboratory/Learnroom Environmental Testing

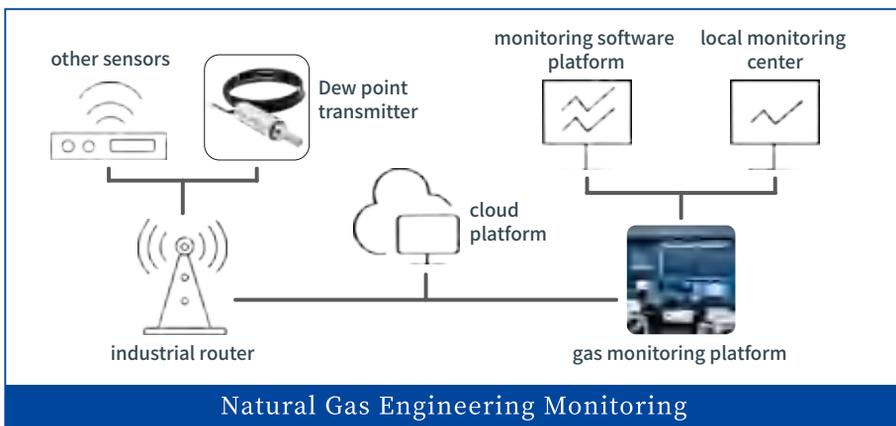
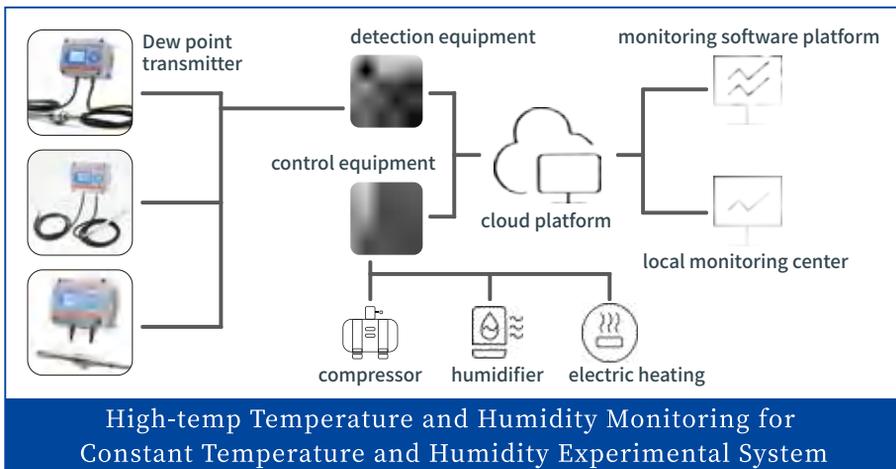
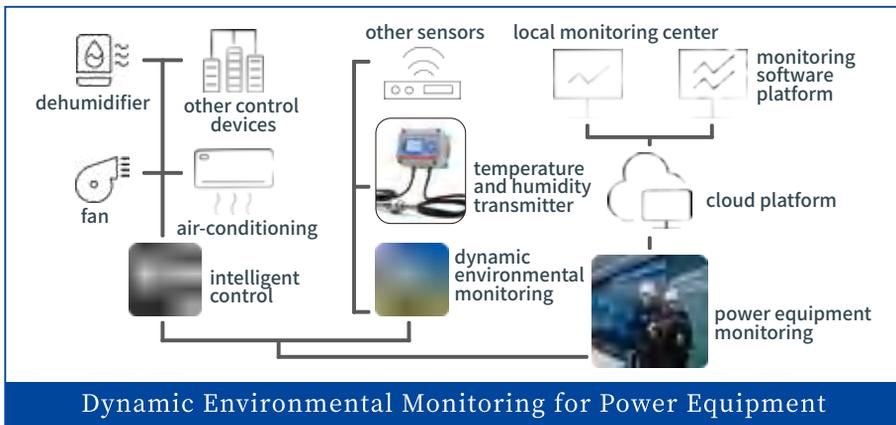


Environmental Monitoring of Central Computer Room



Environmental Monitoring of Rail Transit

Applications



CATALOGUE

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VTH531-A Series

Humidity & Temperature & Dew Point Transmitter

The VTH531-A is an industrial-grade dew point/temperature and humidity transmitter developed for harsh environments. It has the characteristics of high precision, high resolution, fast response, long-term stability, and strong sensor pollution resistance. It has more advantages in measuring harsh environments such as high temperature, high humidity, low temperature, low humidity, high pressure, oil, gas, dust, and severe pollution.



Product Features

- ▶ Accurate and stable: Temperature and humidity in high temperature environments, temperature and humidity in high humidity environments, temperature and humidity in severe environments, temperature and humidity in normal environments, dew point temperature and PPM values in low dew point environments
- ▶ Split type/duct type probe with strong anti pollution and oil resistance ability
- ▶ Made with high-quality aluminum alloy, the waterproof casing ensures the stable operation of the transmitters; the dot matrix LCD provides clear and precise data display
- ▶ Analog output with 15 high-resolution bits, digital output with optional 0.1 or 0.01 resolution
- ▶ Single register and multi register reading support
- ▶ Some models have anti condensation function, which can keep sensors synchronized in high humidity environments
- ▶ Digital output can simultaneously read dew point, humidity, temperature and PPM values
- ▶ By using the standard Modbus RTU protocol, it is easy to achieve interconnection with PLC, DCS, and various configuration software
- ▶ 10V~28V ultra wide voltage input, overcurrent protection, power polarity protection, industrial grade ESD safety protection, and power supply anti reverse connection function

Probe Options



Split type probe 0(A/B)#



Split type probe 1(A/B)#



Split type probe 3(A/B)#



Duct-type probe 5(A/B)#



Split type probe 6(A/B)#



Split type probe 8(A/B)#



316L stainless steel sintered housing
Suitable for 0#, 1#, 3#, 5#, 6#, 8# probes



316L stainless steel grid housing
Suitable for 0#, 1#, 3#, 5#, 6#, 8# probes

Note: Type B is suitable for low dust, low pollution, high humidity and other environments that require immediate and rapid response to measurement data.

Probe Installation



M20*1.5
Hexagonal Thread
Stainless Steel Connector



G 1/2
Hexagonal Thread
Stainless Steel Connector



NPT 1/2
Hexagonal Thread
Stainless Steel Connector



M27*2
Hexagonal Thread
Stainless Steel Connector



Flange
Stainless Steel Connector

VTH531-A Series

Humidity & Temperature & Dew Point Transmitter



Laboratory



Pharmacy



HVAC



Swimming Pool



Biological



Clean Room



Pressure Pipeline



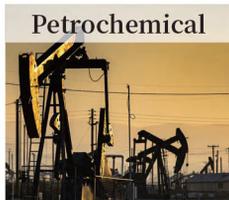
Vacuum

Applications

VTH531-A can be widely used not only in clean rooms, pharmaceutical plants, hydrogen production stations, hydrogen supply stations, hydrogen cooled generator sets, air compressors, pressure pipelines, vacuum equipment, HVAC, swimming pools, museums, archives, nitrogen manufacturing plants and other places, but also in harsh environmental fields such as metallurgy, chemical fiber, petrochemical, electronic manufacturing, SF6 switch gas micro water in substations, and synthetic ammonia industry.



Chemical Fiber



Petrochemical



Museum



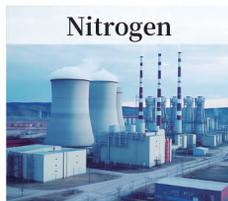
Archives



Converting Station



Electron



Nitrogen



Metallurgy

VTH531-A Series

High-Temperature Humidity Transmitter

Introduction

VTH531-A series adopts ultra-high temperature resistant sensing element and 316L stainless steel probe, the temperature measurement range is up to 190°C, which has the characteristics of accurate measurement, wide range of adapted temperature, long-term stability and long service life. The high temperature resistant design of VTH531-A can still have good humidity collection performance under the high temperature environment of 80~185°C, and the products can be widely applied to the collection of humidity of various high temperature gases such as furnace kiln, high temperature oven, coking gas pipeline, and so on.



Applicable probe models: 3A# probe, 5A# probe, 6A# probe

Specifications

- Temperature range: -40~+200°C (Recommended for use at 80~185°C)
- Humidity range: 0 ~ 100%RH (recommend: <95%RH)
- Temperature accuracy: $\pm 0.1^{\circ}\text{C}(@20^{\circ}\text{C})$
- Humidity accuracy: $\pm 2\% \text{RH} (@20^{\circ}\text{C}, 10\sim 90\% \text{RH})$
- Temperature-Long term stability: $\leq 0.1^{\circ}\text{C}/\text{Y}$
- Humidity-Long term stability: $\leq 1\% \text{RH}/\text{Y}$
- Analogue output: temperature + humidity (dew point value for reference only)
4~20mA/0-5V/0-10V(choose one from three)
- Max working pressure: 16 bar
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps
- Working temperature (transmitter body): -20°C~+60°C, 0%RH~95%RH, (Non-condensation)
- Acquisition frequency: The fastest response is 1s, others can be set according to PLC
- Please refer to the product specification for the accuracy of the measured values

VTH531-B Series

High-Wet Temperature and Humidity Transmitter

Introduction

The VTH531-B series is a high accuracy temperature and humidity transmitter designed for industrial high humidity environment. The long term stable high accuracy humidity sensing capability and excellent corrosion resistance, it is equipped with a robust cast aluminum housing and stainless steel sensor assembly, with a maximum humidity range of up to 98% RH, which allows for continuous accurate temperature and humidity detection in industrial high humidity environments (relative humidity of 80% RH to 95% RH).



Applicable probe models: 0A# Probe, 3A# Probe, 5A# Probe, 6A# Probe, 0B# Probe, 3B# Probe, 5B# Probe, 6B# Probe

Specifications

- Temperature range: -40~+190°C
- Humidity range: 0 ~ 100%RH (recommend: <98%RH)
- Temperature accuracy: $\pm 0.1^{\circ}\text{C}$ (@20°C)
- Humidity accuracy: $\pm 2\%$ RH (@20°C, 40~90%RH)
- Temperature-Long term stability: $\leq 0.1^{\circ}\text{C}/\text{Y}$
- Humidity-Long term stability: $\leq 1\%$ RH/Y
- Analogue output: temperature + humidity (dew point value for reference only)
4~20mA/0-5V/0-10V (choose one from three)
- Max working pressure: 16 bar
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps
- Working temperature (transmitter body): -20°C~+60°C, 0%RH~95%RH, (Non-condensation)
- Acquisition frequency: The fastest response is 1s, others can be set according to PLC
- Please refer to the product specification for the accuracy of the measured values

VTH531-C Series

High Precision & Stable Temperature and Humidity Transmitter

Introduction

The VTH531-C series has a long term stable and highly accurate measurement performance over a wide measurement range (0~100%RH; -50°C~+150°C) with a typical humidity accuracy of $\pm 1.5\%$ and a typical temperature accuracy of ± 0.1 °C. The use of high-quality sensors and advanced calibration technology ensures that the device can maintain high-precision measurement performance after a long period of operation. Based on its precise and stable characteristics, the product is widely used in biopharmaceutical, precision machinery processing, laboratory research, food processing and storage and other fields.



Applicable probe models: 0A# Probe, 1A# Probe, 3A# Probe, 5A# Probe, 0B# Probe, 1B# Probe, 3B# Probe, 5B# Probe

Specifications

- Temperature range: -50~+150°C
- Humidity range: 0 ~ 100%RH (recommend: <95%RH)
- Temperature accuracy: ± 0.1 °C (@20°C)
- Humidity accuracy: $\pm 1.5\%$ RH (@20°C, 10~90%RH)
- Temperature-Long term stability: ≤ 0.1 °C/Y
- Humidity-Long term stability: $\leq 1\%$ RH/Y
- Analogue output: temperature + humidity (dew point value for reference only)
4~20mA/0-5V/0-10V (choose one from three)
- Max working pressure: 16 bar
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps
- Working temperature (transmitter body): -20°C~+60°C, 0%RH~95%RH, (Non-condensation)
- Acquisition frequency: The fastest response is 1s, others can be set according to PLC
- Please refer to the product specification for the accuracy of the measured values

VTH531-D Series

Harsh Environment Temperature and Humidity Transmitter

Introduction

VTH531-D series combines high precision ultra-high temperature resistant sensing element, 316L stainless steel probe, probe heating function, sensor anti-interference, long-term stability design and many other features. It has also passed various types of simulated industrial harsh environments for a long time of accurate tuning, making it in the industrial high temperature, high humidity, low temperature, dry, oil and gas dust, particle pollution, chemical corrosive substances and other harsh environments, with more resistant performance and excellent measurement accuracy. The probe heating function not only removes water vapour condensation or condensation, but also removes the influence of chemical compounds on the probe, ensuring the accuracy of temperature and humidity data in environments with high concentrations of chemicals and cleaning agents.



Applicable probe models: 0A# probe, 1A# probe, 3A# probe, 5A# probe, 6A# probe, 0B# probe, 1B# probe, 3B# probe, 5B# probe, 6B# probe

Specifications

- Temperature range: -40~+190°C
- Humidity range: 0 ~ 100%RH (recommend: <95%RH)
- Temperature accuracy: $\pm 0.1^{\circ}\text{C}$ (@20°C)
- Humidity accuracy: $\pm 2\%$ RH (@20°C, 10~90%RH)
- Temperature-Long term stability: $\leq 0.1^{\circ}\text{C}/\text{Y}$
- Humidity-Long term stability: $\leq 1\%$ RH/Y
- Analogue output: temperature + humidity (dew point value for reference only)
4~20mA/0-5V/0-10V (choose one from three)
- Max working pressure: 16 bar
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps
- Working temperature (transmitter body): -20°C~+60°C, 0%RH~95%RH, (Non-condensation)
- Acquisition frequency: The fastest response is 1s, others can be set according to PLC
- Please refer to the product specification for the accuracy of the measured values

VTH531-E Series

190°C Ultra High-Temperature Dew Point Transmitter

Introduction

VTH531-E series ultra high temperature on line dew point meter is designed for dew point measurement in high temperature and dry environments with a robust cast aluminum housing and stainless steel sensor assembly for excellent dew point measurement accuracy at temperatures up to 160°C and safe operation at temperatures up to 190°C. In addition, it is resistant to interference, corrosion, dust and pollution when dealing with various types of industrial harsh environments.



Applicable probe models:
0A# probe, 8A# probe, 0B# probe, 8B# probe

Specifications

- Dew point range: -50~+90°C
- Dew point accuracy: $\pm 3^{\circ}\text{C}$ ($\pm 5.4^{\circ}\text{F}$) Td
- Temperature range: -40~+190°C
- Temperature accuracy: $\pm 0.1^{\circ}\text{C}$ (@20°C)
- Long term stability: $\leq 0.1^{\circ}\text{C}/\text{Y}$
- Humidity-Long term stability: $\leq 1\% \text{RH}/\text{Y}$
- Analogue output: dew point+temperature (humidity value for reference only)
4~20mA/0-5V/0-10V (choose one from three)
- Max working pressure: 16 bar
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps
- Working temperature (transmitter body): -20°C~+60°C, 0%RH~95%RH, (Non-condensation)
- Acquisition frequency: The fastest response is 1s, others can be set according to PLC
- Please refer to the product specification for the accuracy of the measured values

VTH531-E Series

Standard Online Dew Point Transmitter

Introduction

VTH531-E series of standard online dew point transmitter combine a high quality moisture-sensitive element with advanced calibration techniques to provide highly accurate dew point measurement over a wide dew point range of -50 to 20°C. The VTH531-E series of inline dew point meters are designed to measure dew points over a wide dew point range of -20 to 0°C. Especially in industrial, non harsh environments with a dew point range of -20 to 0°C, the dew point accuracy is consistently $\pm 2^{\circ}\text{C}$ in line with typical dew point accuracy. Its ability to detect microscopic water in dry environments makes it ideal for applications where precise control of ambient humidity is required, such as lithium battery research and production, semiconductor applications, and glove box microscopic water detection.



Applicable probe models:
0A# probe, 8A# probe, 0B# probe, 8B# probe

Specifications

- Dew point range: -60~+90°C
- Dew point accuracy: $\pm 2^{\circ}\text{C}$ ($\pm 3.6^{\circ}\text{F}$) Td
- Temperature range: -50~+150°C
- Temperature accuracy: $\pm 0.1^{\circ}\text{C}$ (@20°C)
- Long term stability: $\leq 0.1^{\circ}\text{C}/\text{Y}$
- Humidity-Long term stability: $\leq 1\% \text{RH}/\text{Y}$
- Analogue output: dew point+temperature (humidity value for reference only)
4~20mA/0-5V/0-10V (choose one from three)
- Max working pressure: 16 bar
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps
- Working temperature (transmitter body): -20°C~+60°C, 0%RH~95%RH, (Non-condensation)
- Acquisition frequency: The fastest response is 1s, others can be set according to PLC
- Please refer to the product specification for the accuracy of the measured values

VTH531-G Series

All-in-One Online Dew Point Transmitter

Introduction

VTH531-G series of all-in-one online dew point transmitters are designed to meet the needs of industrial applications with different dew point ranges to cope with extremely dry environments and to sense and analyse moisture in gases, with dew point ranges up to $-80\sim 20^{\circ}\text{C}$, suitable for measuring low dew point data in industrial applications where very low humidity needs to be controlled. The rugged stainless steel long probe and optional mounting flange allow easy installation with adjustable depth through the thermal barrier.



Applicable probe models: 0A# probe, 8A# probe, 0B# probe, 8B# probe

Specifications

- Dew point range: $-80\sim +20^{\circ}\text{C}$
- Dew point accuracy: $\pm 2^{\circ}\text{C}$ ($\pm 3.6^{\circ}\text{F}$) Td
- Temperature range: $-40\sim +150^{\circ}\text{C}$
- Temperature accuracy: $\pm 0.1^{\circ}\text{C}$ (@ 20°C)
- Long term stability: $\leq 0.1^{\circ}\text{C}/\text{Y}$
- Humidity-Long term stability: $\leq 1\%\text{RH}/\text{Y}$
- Analogue output: dew point+temperature (humidity value for reference only)
4~20mA/0-5V/0-10V (choose one from three)
- Max working pressure: 16 bar
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps
- Working temperature (transmitter body): $-20^{\circ}\text{C}\sim +60^{\circ}\text{C}$, 0%RH~95%RH, (Non-condensation)
- Acquisition frequency: The fastest response is 1s, others can be set according to PLC
- Please refer to the product specification for the accuracy of the measured values

VTH430-B Online Type Dew Point Transmitter



Introduction

VTH430-B transmitter is an industrial grade online dew point transmitter that combines the latest sensor technology. This product can provide fast, stable, and repeatable temperature and humidity data measurement. With compact structure, high integration, and suitable for installation of various industrial pipelines with limited space, this product has excellent performance and service life, making it a highly cost-effective product.

Product Features

- ▶ **Small size:** Integrated design, can be installed in small space
- ▶ **High precision:** Through legal verification by the metrology institute, ensuring long-term reliable high-precision measurement
- ▶ **High cost-effectiveness:** With a wide measurement range, temperature, humidity, and dew point can all be measured
- ▶ **Dual output:** Supports RS485+4-20mA/0-10V/0-5V (choose one from three) support
- ▶ **Long-term stability:** No need for self calibration, no need for maintenance, long calibration cycle, low maintenance cost
- ▶ **Anti-interference:** With strong resistance to pollution and oil, it is very suitable for industrial environments with harsh conditions
- ▶ **Anti-condensation:** The sensor can remain dry even in high humidity environments, with fast response speed and good stability
- ▶ **Strong compatibility:** Adopting standard Modbus-RTU protocol, it can easily achieve interconnection with various configuration software, etc
- ▶ **Power protection:** 10V~28V ultra wide voltage input, power polarity protection, with anti reverse connection function

Applications

Typical applications for the VTH430-B series include data measurement of low dew points in lithium battery production, electronic component production, semiconductor manufacturing, power engineering equipment, and other working conditions where humidity requirements are extremely stringent. It can also be installed as a component in on line dew point analysers, benchtop dew point recorders, drying systems, compressed air systems, constant temperature and humidity systems and other industrial applications to detect the actual moisture in the gas.



Drug Drying



Industrial Dehumidifier



Glove box



Constant temperature and humidity box



Compressed Air System



Drying System



Semiconductor



Pharmaceutical Industry



Food Industry



Oil Extraction

Product Specifications

VTH430-A Series Online Type Dew Point Transmitter

- Dew point range: -60~+60°C
- Dew point accuracy: $\pm 2^{\circ}\text{C}$ ($\pm 3.6^{\circ}\text{F}$) Td
- Operating temperature: -40~+80°C
- Input voltage: DC 10V~28V
- Max working pressure: 16 bar
- Communication interface: Support RS485+4~20mA/ 0~10V/0~5V (choose one from three)
dual outputs
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps

VTH430-B Series Online Type Dew Point Transmitter

- Dew point range: -80~+20°C
- Dew point accuracy: $\pm 2^{\circ}\text{C}$ ($\pm 3.6^{\circ}\text{F}$) Td
- Operating temperature: -40~+80°C
- Input voltage: DC 10V~28V
- Max working pressure: 16 bar
- Communication interface: Support RS485+4~20mA/ 0~10V/0~5V (choose one from three)
dual outputs
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps

VTH430-C Series Online Type Dew Point Transmitter

- Dew point range: -30~+50°C
- Dew point accuracy: $\pm 1^{\circ}\text{C}$ ($\pm 1.8^{\circ}\text{F}$) Td
- Operating temperature: -20~+50°C
- Input voltage: DC 10V~28V
- Max working pressure: 16 bar
- Communication interface: Support RS485+4~20mA/ 0~10V/0~5V (choose one from three)
dual outputs
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps

VTH533-B Temperature and Humidity Transmitter

Split Probe (Reliable/ Multiple Models Choice/Widely Used)



Product Features

- ▶ 10-30V wide DC voltage supply
- ▶ Industrial grade ESD safety protection and power supply anti reverse connection design
- ▶ Supporting up to 20 meters long sensor cable
- ▶ Sensitive waterproof and anti-fine dust high-temperature probe
- ▶ Standard RS485/Modbus-RTU communication protocol
- ▶ IP66 waterproof and dust proof
- ▶ Digital signal output type, default temperature unit is °C, °F can be customized

VTH533-B split series temperature and humidity transmitter adopts imported high-precision measurement units, with built-in high-precision temperature compensation, high stability, small drift, and high repeatability, the wall mounted shell can be easily fixed to the wall. The digital-tube temperature and humidity transmitter has a display function, which can display the current temperature and humidity in real-time.

Output mode selection:

- ① The RS485 signal output
- ② 4-20 mA/0-5V/0-10V temperature and humidity two simulation amount+ RS485 signal output

Applications

Multiple models are widely used in various occasions, including communication rooms, warehouse buildings, animal husbandry, medicinal material bases, flower breeding, papermaking and textile, tobacco, agricultural greenhouses, cement maintenance rooms, archive and cultural relics preservation, drug shade cabinets, distribution cabinets, underground railways and tunnel engineering, etc., which require temperature and humidity measurement.



Warehouse



Biopharmaceuticals



Communication Room



Clean Room



Rail Transit



Standard Probe



Flanged type with long probe



Flanged type with short probe



Threaded type with short probe



Probe with plastic housing

Specifications

- Temperature Range: -40 ~ 120°C (stainless steel probe) -40 ~ 100°C (plastic probe)
- Humidity Range: 0~100% RH
- Temperature Accuracy: $\pm 0.3^{\circ}\text{C}$ (25°C), (higher precision optional)
- Humidity Accuracy: $\pm 3\%$ RH (60% RH, 25°C) (higher precision optional)
- Temperature - Long term stability: $\leq 0.1^{\circ}\text{C}/\text{y}$
- Humidity - Long term stability: $\leq 1\%$ RH/y
- Signal Output :
 - ① The RS485 signal output. The default temperature unit is °C °F can be customized
 - ② 4-20 mA/0-5V/0-10V temperature and humidity two capacity + RS485 signal output
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, default is 9600 bps
- Transmitter Circuit Operating Temperature: -20°C~+60°C, 0%RH~95%RH, Non condensation
- Support max 20 meters long cable
- Industrial grade ESD safety protection and power supply reverse protection design
- Supports both single-register and multiple-register reading
- Sensitive waterproof and fine dust high temperature resistant probe
- Analog output with a resolution of 15 bits
- Digital output can set the output of 0.1 or 0.01 resolution

VTH533-B Temperature and Humidity Transmitter

Replaceable Probes (Reliable and Affordable)

Introduction

1. Integrated split structure design, light weight and convenient.
2. Easy to replace and reduce equipment maintenance costs
3. High cost-effectiveness, reliable and affordable
4. Suitable for sensor vulnerable temperature and humidity measurement scenarios, such as smart farming, smart agriculture, etc

The VTH533-B detachable probe transmitter is paired with a cost-effective detachable and replaceable probe. The detachable probe design allows the probe module and transmitter module to be independently disassembled and replaced.

When the sensor is damaged or replaced, only the front probe needs to be replaced and the wires in the probe need to be replaced, without the need to replace the entire transmitter. This greatly reduces maintenance costs and time, and improves equipment reliability and maintainability.

Widely used in sensor probe vulnerable temperature and humidity measurement scenarios.



Detachable and Replaceable

Specifications

- Temperature Range: -40 ~ 100°C (plastic replaceable probe)
- Humidity Range: 0~100% RH
- Temperature Accuracy: $\pm 0.3^{\circ}\text{C}$ (25°C), (higher accuracy optional)
- Humidity Accuracy: $\pm 3\% \text{RH}$ (60%RH, 25°C) (higher accuracy optional)
- Temperature - Long term Stability: $\leq 0.1^{\circ}\text{C}/\text{y}$
- Humidity - Long term Stability: $\leq 1\% \text{RH}/\text{y}$
- Signal Output :
 - ① The RS485 signal output. The default temperature unit is $^{\circ}\text{C}$ can be customized
 - ② 4-20 mA/0-5V/0-10V temperature and humidity two analog capacity + RS485 signal output
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, default is 9600 bps
- Transmitter Circuit Operating Temperature: $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$, 0%RH-95%RH, Non-condensation
- Supports both single-register and multiple-register reading
- Industrial grade ESD safety protection and power supply reverse protection design
- Supports both single-register and multiple-register reading
- Digital output can set the output of 0.1 or 0.01 resolution



Detachable and Replaceable

VTH533-B Temperature and Humidity Transmitter

Integrated Probe Type

Introduction

The VTH533-B adopts standard industrial interface 4-20mA analog or RS485 digital signal output, and can be connected to on-site digital display meters, PLC, frequency converters, industrial control hosts and other equipment.

Safe and reliable, with a beautiful appearance and convenient installation.

The probe is directly connected to the transmitter, making it easy to install without the need for additional fixed joints. It is widely used in communication rooms, warehouse buildings, archival and cultural relics preservation, flower breeding, agricultural greenhouses, curing rooms, under-ground railway and tunnel engineering, papermaking, textiles, tobacco, distribution cabinets, and other scenarios that require temperature and humidity measurement.



Specifications

- Temperature Range: -20~60°C (plastic sensor housing)
- Humidity Range: 0~100% RH
- Temperature Accuracy: $\pm 0.3^{\circ}\text{C}$ (25°C), (higher accuracy optional)
- Humidity Accuracy: $\pm 3\%$ RH (60% RH, 25°C) (higher accuracy optional)
- Long-term Temperature Stability: $\leq 0.1^{\circ}\text{C}/\text{y}$
- Long-term Humidity Stability: $\leq 1\%$ RH/y
- Signal Output :
 - ① The RS485 signal output. The default temperature unit is $^{\circ}\text{C}$ $^{\circ}\text{F}$ can be customized
 - ② 4-20 mA/0-5V/0-10V temperature and humidity two analog capacity + RS485 signal output
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, Default is 9600 bps
- Transmitter circuit operating temperature: -20°C ~ $+60^{\circ}\text{C}$, 0%RH~95%RH, Non-condensation
- Supports both single-register and multiple-register reading
- Industrial grade ESD safety protection and power supply reverse protection design
- Digital output can set the output of 0.1 or 0.01 resolution

VTH533-B Temperature and Humidity Transmitter

Air Duct Type

Product Features

- ▶ Integrated design, simple and elegant
- ▶ Industrial grade ESD safety protection and power supply anti reverse connection design
- ▶ Using waterproof, dust proof, and high-temperature resistant probes
- ▶ Sensitive waterproof and anti fine dust high-temperature probe
- ▶ Standard RS485 Modbus-RTU communication protocol
- ▶ High precision, high stability, IP66 waterproof and Dust proof level
- ▶ Multiple probe materials available
- ▶ Digital signal output type, default temperature unit is °C, °F can be customized



The VTH533-B Air Duct Series Transmitter is equipped with a sensitive waterproof and anti-fine dust probe, with a temperature range of -40~80 °C.

Adopting standard industrial interface RS485 digital signal output or 4 - 20 mA analog output, with display function, it can be connected to on - site digital display meter, PLC, frequency converters, industrial control hosts and other equipment.

Outputs

- ① The RS485 signal output
- ② 4-20 mA/0-5V/0-10V temperature and humidity two simulation amount+ RS485 signal output

Applications

The air duct probe is waterproof, dustproof, heat-resistant, and corrosion-resistant, suitable for temperature and humidity monitoring in air duct scenarios such as rail transit, HVAC, central air conditioning, smoke exhaust pipes, and industrial waste gas emissions. The length of the probe can be customized according to actual application scenarios, and can be installed and fixed on the pipeline wall with hexagonal threads or flanges.



Flue Pipe



Flue Gas Pipeline



Central Air Conditioning



HVAC



Rail Transit



Threaded Duct Connector

(M20*1.5 / M27*2)



Flange Duct Connector

(D53*H2.65*M20*1.5)

(Flange ID ϕ 43.5 Size ϕ 5)

Specifications

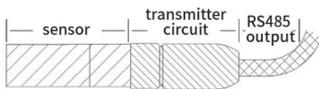
- Temperature Range: -40~80°C(plastic or stainless steel sensor probe)
- Humidity Range: 0~100% RH
- Temperature Accuracy: $\pm 0.3^{\circ}\text{C}$ (25°C) ,(higher accuracy optional)
- Humidity Accuracy: $\pm 3\%$ RH(60%RH, 25°C)(higher accuracy optional)
- Long-term Temperature Stability: $\leq 0.1^{\circ}\text{C}/\text{y}$
- Long-term Humidity Stability: $\leq 1\%$ RH/y
- Signal Output :The RS485 signal output, 4-20 mA temperature and humidity two analog capacity + RS485 signal output
- Baud rate: 1200/2400/4800/9600/19200/115200can be set, Default is 9600bps
- Transmitter circuit operating temperature: -20°C~+60°C, 0%RH~95%RH, Non-condensation
- 10V~30V wide DC voltage supply
- Industrial grade ESD safety protection and power supply reverse protection design
- Supports both single-register and multiple-register reading
- Sensitive, waterproof, fine dust and high temperature resistant probe

VTH436 Series

RS485 Output Temperature and Humidity Transmitter

High performance integrated industrial application fields

VTH436 series temperature and humidity transmitter adopts the RHT series temperature and humidity sensor, which can simultaneously collect temperature and humidity data. It has the characteristics of high accuracy, low power consumption, and good consistency. It can calculate dew point data simultaneously and output it through RS485 interface. Using Modbus-RTU communication, it can be connected to PLC, human-machine screen, DCS, and various configuration software to achieve temperature and humidity data collection.



Diagram

Composed of a probe and a transmission host, with RS485 output



VTH437 Temperature and Humidity Transmitter

Thread size is optional, suitable for threaded tightening in work environments or installation through box walls



VTH435 Temperature and Humidity Transmitter

Durable and compact probe structure, suitable for narrow spaces, tortuous pipelines, smaller pipelines, or suspended installations



VTH436 Temperature and Humidity Transmitter

The long pole structure is suitable for high-temperature pipeline facilities such as large-sized pipelines and smoke pipes, as well as installation through thicker box walls



VTH532T Temperature and Humidity Transmitter

Suitable for workplaces that require flange fastening, suitable for flange fastening installation on walls, box walls, etc

Specifications

- Temperature Range: -20~80°C
- Humidity Range: 0~100%RH (recommendation <90%RH)
- Temperature - Long term Stability: $\leq 0.1^\circ\text{C}/\text{y}$
- Humidity - Long term Stability: $\leq 1\% \text{RH}/\text{y}$
- Communication interface: RS485 / Modbus-RTU
- Baud rate: 1200/2400/4800/9600/19200 can be set, default is 9600 bps
- Temperature Accuracy: $\pm 0.2^\circ\text{C}$ (@0~65°C)
- Humidity Accuracy: $\pm 2.0\% \text{RH}$ (@25°C, 10~90%RH)
- Response time: 10S (wind speed: 1m/s)
- Power: DC 4.5V~24V
- Power dissipation: <0.1W

Applications

VTH436 has a small volume and is very suitable for temperature and humidity measurement environments with extreme installation space requirements such as pipelines and gaps. It is often used as an accessory and embedded in small lightweight equipment with high automation and integration to achieve monitoring of environmental temperature and humidity. VTH436 is widely used in fields such as aerospace, industrial control, medical equipment, lightweight electrical equipment, meteorological monitoring, and exhaust gas treatment.



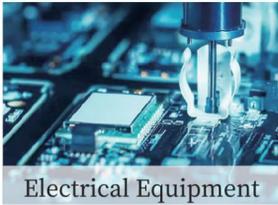
Aerospace



Industrial Control



Medical Equipment



Electrical Equipment



Meteorological



Waste Gas Treatment

Product Features

- ▶ Ultra small size, high integration, simple installation, convenient for system networking and wiring
- ▶ Adopting RHT temperature and humidity sensors, with high collection accuracy and good consistency
- ▶ Using the standard Modbus-RTU protocol, it is easy to achieve interfaces with PLC, human-machine screen, DCS, and various configuration software
- ▶ Communication protection: The RS485 communication signal output interface adopts dual over voltage and over current protection
- ▶ 4.5V~24V ultra wide voltage input
- ▶ Power polarity protection with anti reverse connection function
- ▶ Adopting 316L stainless steel breathable protective shell, it has waterproof, dustproof, and corrosion-resistant characteristics, with sturdy material and stable performance
- ▶ Multiple probe structures and installation methods are available for selection, which can be flexibly applied to various industrial scenarios that require integrated installation or narrow space environments

Integrated Probe Type

VTH438 Temperature and Humidity Transmitter



Plastic probe housing

Product features:

- ▶ RS485 signal output, using dual overvoltage and overcurrent protection
- ▶ High precision, ultra small and integrated high-temperature and humidity sensor module
- ▶ Extremely strong anti pollution ability, very suitable for industrial environments with harsh conditions
- ▶ Adopting RHT series temperature and humidity sensors
- ▶ 4.5V~24V ultra wide voltage input
- ▶ Power polarity protection with anti reverse connection function
- ▶ Using the standard Modbus-RTU protocol, it is easy to achieve interfaces with PLC, DCS, and various configuration software

VORTORQ integrated temperature and humidity transmitter adopts imported chips, which can accurately collect temperature, humidity, and dew point data simultaneously. It outputs through RS485 interface, adopts Modbus-RTU communication and dual over voltage and over current protection, and is connected to PLC, human-machine screen, DCS, and various configuration software to achieve temperature and humidity data collection; The specifications are diverse and can be customized according to customers' needs.

Specifications

- Temperature range: -20~60 °C
- Humidity range: 0-100% RH
- Temperature accuracy: ± 0.2 °C (@ 25 °C)
- Humidity accuracy: $\pm 2\%$ RH (@ 25 °C, 10~90% RH)
- Temperature-Long term stability: ≤ 0.1 °C/year
- Humidity-Long term stability : $\leq 1\%$ RH/year
- Response time: 10 S (1m/s wind speed)
- Output: RS485 signal, standard Modbus-RTU communication
- Working voltage (Vs): DC 4.5V~24V
- Baud rate: 1200/2400/4800/9600 can be set, default 9600 bps

Replaceable Probe Type

VTH439 Temperature and Humidity Transmitter



Product features:

- ▶ RS485 communication signal output, using dual overvoltage and overcurrent protection
- ▶ The front end of the probe can be easily disassembled and replaced without the need for disassembly or rewiring. It can be replaced by simply unscrewing the thread, and the cost of replacing the probe is low
- ▶ Dismantling the probe reduces the cost of equipment replacement, technical requirements, and equipment recovery time for users, greatly reducing overall costs
- ▶ Compact structure, with a collection probe, signal transmission, and wire transmission integrated into one, compact size, lower space requirements, and more flexible installation
- ▶ Power polarity protection with anti reverse connection function

The VORTORQ integrated temperature and humidity transmitter adopts imported chip to measure more accurately, and can collect temperature and humidity and dew point data at the same time. With an output of RS485/Modbus-RTU, it can be networked with PLC, man-machine screen, DCS and various configuration software to realize temperature and humidity data acquisition. The probe part is made of industrial-grade plastic housing with a variety of specifications that can be customized on demand. The products are widely used in temperature and humidity measurement scenarios where the cost of use is extreme and the sensor probe is easily damaged.

Specifications

- Temperature range: -20~60 °C
- Humidity range: 0-100% RH
- Temperature accuracy: ± 0.2 °C (@ 25 °C)
- Humidity accuracy: $\pm 2\%$ RH (@ 25 °C, 10~90% RH)
- Temperature-Long term stability: ≤ 0.1 °C/year
- Humidity-Long term stability: $\leq 1\%$ RH/year
- Response time: 10 S (1m/s wind speed)
- Output: RS485 signal, standard Modbus-RTU communication
- Working voltage (Vs): DC 4.5V~24V
- Baud rate: 1200/2400/4800/9600 can be set, default 9600 bps

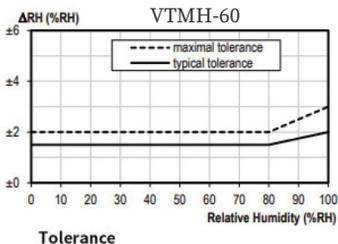
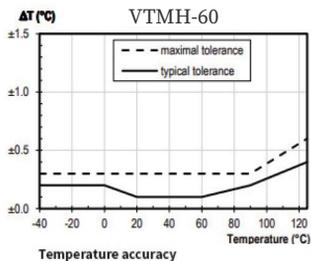
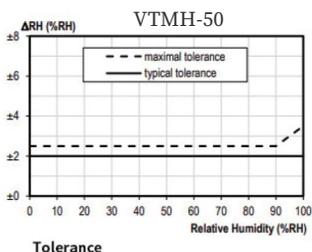
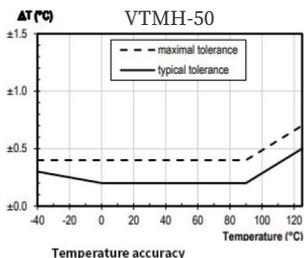
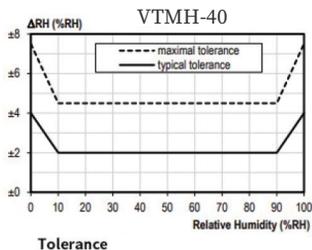
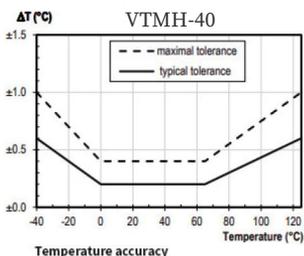


Detachable and Replaceable

Temperature and Humidity Probe Data Sheet

Model	Humidity Accuracy(%RH)	Temperature (°C)	Voltage Supply(V)	Interface	Relative Humidity Range(RH)	Temperature Range
VTMH-40	±2.0 @10-90%RH	±0.2 @0-65°C	3.3	I ² C	0-100%	-40~125°C
VTMH-50	±2.0 @0-100%RH	±0.2 @0-90°C	3.3	I ² C	0-100%	-40~125°C
VTMH-60	±1.5 @0-80%RH	±0.1 @20-60°C	3.3	I ² C	0-100%	-40~125°C

VORTORQ provides VTMH series probes for you to choose VORTORQ's temperature and humidity transmitters, sensors, controllers, recorders, and other products to meet your measurement needs.



* The above data is only the accuracy of the humidity-sensitive components. Due to line resistance and other reasons, there is slight deviation for actual data.

Hand-held Series (overview)

Temperature and Humidity Dew Point Meter

Advantages

1. Multifunction Measurement:

One machine with multiple functions, measuring dew point, temperature, humidity, and wet bulb simultaneously. The probe length of 30-545mm can be customized

2. Long term stability :

Provide long-term accuracy in environments ranging from -30 to 80 °C (Kind reminder: For usage environments above 80 °C, please contact the sales team for confirmation)

3.Excellent features:

Compact and lightweight, easy to install, suitable for on-site inspection in various environments, and more flexible to use

4. Backlit high-definition large screen:

Enable products to view data normally in scorching sunlight or dark environments

5. Realtime monitoring of data:

Reserved IOT function, can connect to Bluetooth, and monitor data in real-time

6. High quality probe housing:

316L stainless steel probe housing, IP66 waterproof and dust proof rating, providing good protection for sensors

7. Easy to operate:

The interface is simple, easy to use, extremely easy to operate, and can be used without professional training

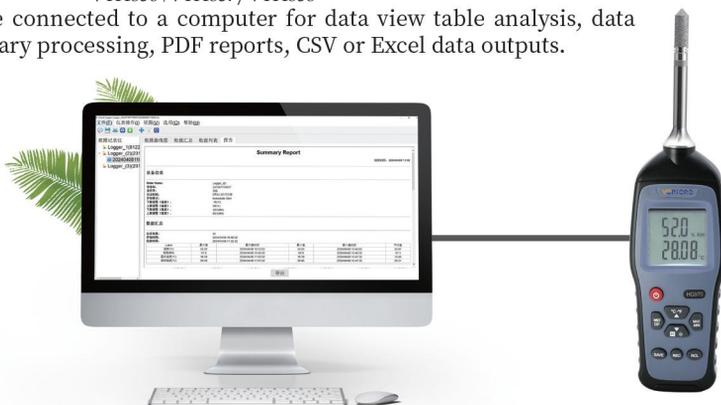
8. Massive data storage

Store 32000-64000 pieces of data, of which 99 sets can be directly viewed



Connect the computer for data analysis

VIH856 /VTH857/VTH858 series handheld instruments can be connected to a computer for data view table analysis, data summary processing, PDF reports, CSV or Excel data outputs.



Hand-held Series (overview)

Temperature and Humidity Dew Point Meter

Special Functions



Replaceable Probe

The VTH856 /VTH857/VTH858 series handheld temperature and humidity meters are designed with a detachable probe section, and one device is equipped with two identical detachable probes.

The detachable probe design has the characteristics of improving product life, reducing maintenance costs, stable measurement accuracy, and emergency response capabilities.

Software Calibration

The handheld temperature and humidity meter has software calibration function. If there is a deviation in the measurement value during long-term use of the equipment, it can be calibrated through software.



VTH856 Replaceable Probe

Handheld Temperature and Humidity Dew Point Meter



Specifications

- Temperature range: -30~+80 °C (probe only)
- Humidity range: 0-100% RH
- Dew point range: -30~+80 °C
- Wet bulb range: -20~+60 °C
- Temperature accuracy: ± 0.1 °C (@ 20 °C)
- Humidity accuracy: $\pm 1.5\%$ RH (@ 20 °C, 20-60% RH)
- Sampling rate: 1 time per second
- Response time: less than 10S (90% 25 °C, wind speed 1m/s)
- Data recording and USB interface
- Can simultaneously measure temperature, humidity, dew point temperature, and wet bulb temperature

VTH856 handheld temperature and humidity meter is an industrial grade, high-precision temperature and relative humidity measuring instrument. This instrument is powered by a 9V battery and uses an external high-precision probe. It has the function of measuring humidity, temperature, dew point temperature, and wet bulb temperature, making it easy to meet the needs of precise temperature and humidity measurement in various situations.

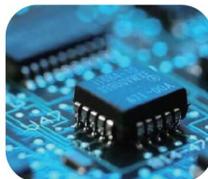
VTH856 is an ideal choice for laboratory, industrial, and engineering temperature and humidity measurement, inspection, and verification. VTH856 is widely used in industries such as automotive manufacturing, rail transit, aviation, biopharmaceuticals, gases, compressed air, electronic devices, smart agriculture, warehousing, logistics, and food processing.



Laboratory



Tobacco Factory



Semiconductor



Electronic Components



Hygroscopic Plastic



Largescale
Equipment



Production
Environment



Food
Chemical Industry

VTH857 High - Temperature Handheld Temperature and Humidity Dew Point Meter

80°C~120°C(Highly-recommended)

The VORTORQ VTH857 high temperature handheld dew point temperature and humidity meter is compact, lightweight, and easy to use. It is specially designed for on-site inspection in various environments. The product adopts a 316L stainless steel probe housing, which provides good protection for the sensor.

The probe part can withstand a certain degree of chemical corrosion and has an IP66 waterproof and dustproof rating, which can provide long-term accuracy in harsh environments.



Replaceable Probe

Specifications

- Temperature range: -30~+120 °C
- Humidity range: 0-100% RH
- Dew point range: -30~+80 °C
- Wet bulb range: -20~+60 °C
- Temperature accuracy: ± 0.1 °C (@ 20 °C)
- Humidity accuracy: $\pm 1.5\%$ RH (@ 20 °C, 20-60% RH)

Product features:

- ▶ Fast response, calculated every 10 milliseconds
- ▶ The product adopts a 316L stainless steel probe housing with an IP66 waterproof and dustproof rating, which can provide long-term accuracy in harsh environments
- ▶ The interface is simple, easy to use, extremely easy to operate, and does not require professional training
- ▶ Adopting a backlit high-definition large screen, allowing the product to view data normally even in scorching sun and night environments
- ▶ Connect Bluetooth (customizable), monitor data in real-time, automatically generate data tables, and store 99 sets of data

Applications

Widely used in hygroscopic plastics and semiconductor materials, as well as in industries such as agricultural, food, chemical industry, tobacco factories, and laboratories. It is also commonly used in the box cavities of various types of box equipment, as well as in various high-temperature sites, narrow space sites, and harsh environments temperature and humidity sampling.

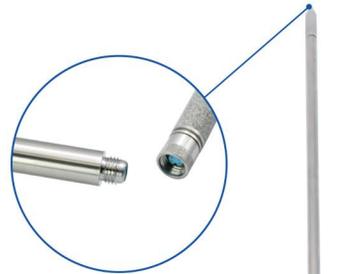


VTH858 Split Type

Handheld Temperature and Humidity Dew Point Meter

Specifications

- Temperature range: -30~+120 °C (probe only)
- Humidity range: 0-100% RH
- Dew point range: -30~+80 °C
- Sampling rate: 1 time per second
- Response time: less than 10S (90% 25 °C, wind speed 1m/s)
- Can measure simultaneously: temperature, humidity, dew point temperature, wet bulb temperature
- Temperature accuracy: ± 0.1 °C (@ 20 °C)
- Humidity accuracy: $\pm 1.5\%$ RH (@ 20 °C, 20-60% RH)
- Wet bulb range: -20~+60 °C
- Data recording and USB interface



Replaceable Probe

VTH858 product adopts an external high-precision probe, which has long-term stability and can easily meet the needs of precise temperature and humidity measurement in various non corrosive, non high and low humidity situations.

This product has been widely used in industrial industries such as drying ovens, dryers, semiconductor equipment, equipment maintenance, harsh HVAC environments, chemical plants, tobacco factories, and laboratories, and is highly trusted by customers.

Product features:

- ▶ Fast response speed, calculated every 10 milliseconds
- ▶ The product adopts a 316L stainless steel probe housing with an IP66 waterproof and dust proof rating, which can provide long-term accuracy in harsh environments
- ▶ The interface is simple, easy to use, extremely easy to operate, and does not require professional training
- ▶ Adopting a backlit high-definition large screen, allowing the product to view data normally even in scorching sun and night environments
- ▶ Connect Bluetooth (customizable), monitor data in real-time, automatically generate data tables, and store 99 sets of data

Applications

Widely used in hygroscopic plastics and semiconductor materials, as well as in industries such as agricultural, food, chemical industry, tobacco factories, and laboratories. It is also commonly used in the box cavities of various types of box equipment, as well as in various high-temperature sites, narrow space sites, and harsh environments temperature and humidity sampling.



Customizable I2C Probes

Features:

- ▶ I2C digital output; very small size
- ▶ Fast field interchangeability to minimize customer maintenance costs
- ▶ Fast and reliable measurement of air temperature and humidity
- ▶ Maximum accuracy up to $\pm 0.1^{\circ}\text{C}$
- ▶ IP66 level waterproof and dustproof, sturdy and resistant to pressure
- ▶ Standard 4-cell connector, high handling capacity



Temperature and humidity transmitter

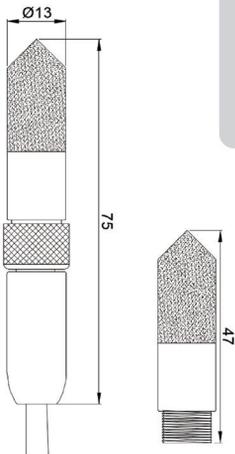


Vcc: Power supply (Red) GND (Black)
SCK (Yellow or white) SDA (Green or Blue)

This type of temperature and humidity transmitter adopts an I2C customizable probe, with a replaceable front end and a small volume. The universal stainless steel sintered shell M12 connector is combined and can be replaced within seconds without adjusting the electronic calibration for evaluation. This front-end replaceable probe allows for use in various harsh environments. The digital output signal makes the measurement results easy to process and can provide cost-effective interfaces with customer electronic devices.

Applications

Accurate and reliable relative humidity and temperature measurement in production environments, industrial manufacturing, meteorological applications, climate chambers, OEM applications, and various industrial and heavy industrial applications.



Response time:

8S (1m/s wind speed)

Storage temperature range:

-20~70°C

Options	Number of micrometers
1	7-10 μm
2	30-40 μm
3	50-60 μm
4	60-90 μm
...	...

Main Parameters

- Product output: I2C
- Power supply: DC 3.3V
- Power consumption: < 0.1W
- Measuring range: -40~125°C, 0~100%RH
- Temperature $\pm 0.1^{\circ}\text{C}$ (@25°C)
- Humidity $\pm 1.5\%$ RH (@10%RH~90%RH, @25°C)
- Stability
- Humidity: <1%RH/Y
- Temperature: <0.1°C/Y

VOT90 Temperature and Humidity Sensor Probe Series

Model	Pictures
VOT90-A	 <p data-bbox="276 483 901 509">Temperature and humidity probe with both aviation plugs</p>
VOT90-B	 <p data-bbox="276 727 901 753">Temperature and humidity probe with single aviation plug</p>
VOT90-C	 <p data-bbox="192 974 987 1000">Temperature and humidity probe with waterproof cable gland(hexagonal)</p>
VOT90-D	 <p data-bbox="199 1224 980 1250">Temperature and humidity probe with waterproof cable gland(Knurling)</p>
VOT90-E	 <p data-bbox="301 1461 863 1487">Temperature and humidity probe with Shrink sleeve</p>

VOT90 Temperature and Humidity Sensor Probe Series

Model	Pictures
VOT90-F	 <p data-bbox="790 472 994 500">Replaceable probe</p> <p data-bbox="441 540 798 568">Stainless steel replaceable probe</p>
VOT90-G	 <p data-bbox="473 865 765 893">Silver edge knurling probe</p>
VOT90-H	 <p data-bbox="459 1195 779 1222">Small hexagonal aerial probe</p>
VOT90-I	 <p data-bbox="539 1492 699 1520">Six core probe</p>

VOT90 Temperature and humidity sensor long probe series

Model	Pictures	Length of stainless steel tube (mm)
VOA-A	 <p>Screw head (small hex) long probe Φ5 wire</p>	63
VOA-B	 <p>Hexagonal male thread long probe</p>	92
VOA-C	 <p>Knurled screw thread long probe</p>	127
VOA-D	 <p>Flanged male thread probe</p>	150
VOA-E	 <p>Flanged long probe</p>	177
VOA-F	 <p>Flanged screw thread long probe</p>	182
VOA-G		...

* Universal for long probe

Sensors can be coated with waterproof paint to achieve double waterproof effect.

For more detailed specifications of the flange or special requirements, please consult our sales staff.

Sensor Probe Housing

Model	Thread	Specification (mm)	Product pictures
Flat head with female thread(Made of stainless steel)			
VTH64MCN	M6*1.0 female thread	OD10*ID6*H22.7	
VTH64MBNL	M8*0.75 female thread	OD10*ID7*H25	
VTH64MDNL	M8*1.25 female thread	OD10*ID7*H25	
VTH85U5/16U	5/16-32 UNEF female thread	OD9.5*ID7*H25.5	
VTH86MAN	M10*0.5 female thread	OD11.9*ID8.2*H21.0	
VTH96MBN	M10*0.75 female thread	OD12*ID9*H30	
VTH96MCN	M10*1.0 female thread	OD12*ID9*H30	
VTH96MCNL	M10*1.0 female thread	OD12*ID9*H35	
VTH59MBN	M12*0.75 female thread	OD13.8*ID11*H30	
VTH59MCN	M12*1.0 female thread	OD13.8*ID11*H30	
VTH66MBN	M12*0.75 female thread	OD13.8*ID11*H40	
VTH66MCN	M12*1.0 female thread	OD13.8*ID11*H40	
VTH66MEN	M12*1.5 female thread	OD13.8*ID11*H38.5	
VTH97MCN	M14*1.0 female thread	OD17.3*ID12.4*H32	
VTH82MDN	M14*1.25 female thread	OD17.5*ID13.6*H42	
VTH83MCN	M16*1.0 female thread	OD18*ID14.2*H45	
VTH83MEN	M16*1.5 female thread	OD18*ID14.2*H45	
VTH78MCN	M19*1.0 female thread	OD20*ID16*H50	
VTH78MEN	M18*1.5 female thread	OD20*ID16*H50	
VTH35G3/4N	G 3/4" female thread	OD28.6*ID23.6*H50	
VTH36MCN	M27*1.0 female thread	OD30*ID26*H50	
VTH37MCN	M30*1.0 female thread	OD33.5*ID28.5*H50	
VTH38G1/1N	G 1" female thread	OD36.7*ID30*H55	
VTH99MCN	M30*1.0 female thread	OD35.5*ID30.5*H40	

Sensor Probe Housing

Model	Thread	Specification (mm)	Product pictures
Flat head with female thread(Made of stainless steel)			
VTH47G1/8U	G 1/8" male thread	OD12*ID7.4*H31	
VTH47MCU	M10*1.0 male thread	OD12*ID8.4*H28	
VTH104MCU	M20*1.0 male thread	OD22.2*ID14.8*H44	
VTH88MCU	M20*1.0 male thread	OD22*ID17.6*H54	
VTH93G3/8U	G 3/8" male thread	OD20*ID15.6*H63	
VTH35G3/4U	G 3/4" male thread	OD28.6*ID22.6*H40	
VTH45MEU	M4*1.5 male thread	OD17*ID10*H69	
Cone head with male thread(Made of stainless steel)			
VTH20MCN	M10*1.0 female thread	OD12*ID8.4*H37	
VTH20MCNL	M10*1.0 female thread	OD12*ID8.4*H42	
VTH94MBN	M12*0.75 female thread	OD14.6*ID11*H41	
VTH94MBNL	M12*0.75 female thread	OD14.6*ID11*H47.5	
VTH94MCN	M12*1.0 female thread	OD14.6*ID11*H41	
Flat head with male thread(Made of stainless steel)			
VTH94MCU	M12*1.0 male thread	OD14.6*ID10*H40	
VTH20MCU	M10.5*1.0 male thread	OD12*ID8.4*H34.3	
VTH20G1/8U	G 1/8" male thread	OD12*ID7.4*H37	
VTH103MBU	M6*0.75 male thread	OD12*ID4*H21	
VTH103MCU	M6*1.0 male thread	OD12*ID4*H21	
Flat head with female thread(Made of alloy)			
VYS4MCN	M10.5*1.0 female thread	OD14*ID10.5*H40	
VYS3MCN	M10*1.0 female thread	OD12*ID10*H36	
VYS2MBN	M12*0.75 female thread	OD14*ID11*H40	
VYS1MBN	M12*1.25 female thread	OD15*ID11*H40	

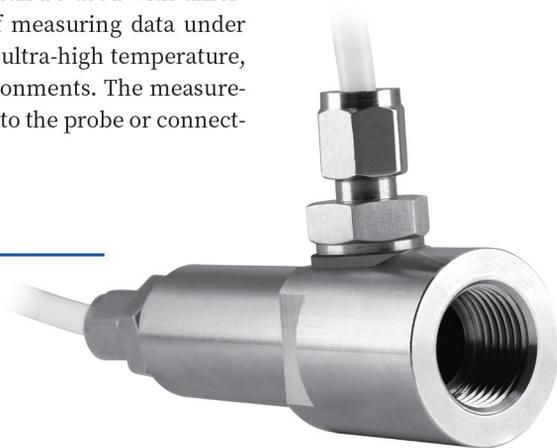
Optional Accessories

1. Gas Sampling Kits

By using gas sampling kits, you can indirectly measure the temperature, humidity and dew point data in the environment. The gas sampling kit can be used with different devices to solve the problem of measuring data under special working conditions, such as ultra-high temperature, ultra-high pressure, and harsh environments. The measurement inlet can be screwed directly into the probe or connected to a threaded adapter for sealing.

Product Features

- ▶ Multiple sampling kits available
- ▶ Stainless steel material
- ▶ Well-made and reliable quality
- ▶ Various air intakes available
- ▶ Adjustable flow rate



2. Power Adapter

Convenient for quick debugging and use when there is no PLC or other weak power connection.

Input voltage: AC 100-240V

Output voltage: DC 12V/1A



VTG190 Temperature Humidity Transmitter

Product Features

- High - precision temperature and humidity sensor
- Achieve accurate temperature and humidity measurement in HVAC (Heating, Ventilation and Air Conditioning) applications.
- Full-range measurement from 0 to 100% RH
- It has multiple selectable output modes, such as 0 - 5V, 0 - 10V, 4 - 20mA, RS485 and so on.
- It supports the use of an external Bluetooth debugger for on-site calibration.
- It is easy to install and requires little maintenance work.
- There are two optional appearances: with a display screen and buttons, and without a display screen.

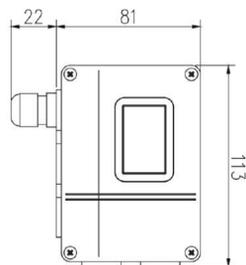
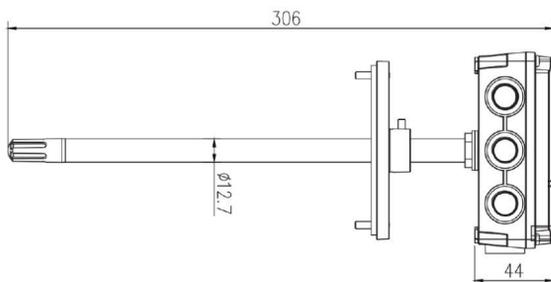


Product Model

model	Output
VTG190	Three wire current 4-20mA, three wire voltage 0-10V, RS485 (Modbus RTU) compatible
VTG190-1	Three wire current 4-20mA, three wire voltage 0-10V, RS485 (Modbus RTU) compatible, , with display
VTG190-2	Three wire current 4-20mA, three wire voltage 0-5V, RS485 (Modbus RTU) compatible
VTG190-3	Three wire current 4-20mA, three wire voltage 0-5V, RS485 (Modbus RTU) compatible, , with display
VTG190-4	2-wire system current 4-20mA
VTG190-5	2-wire current 4-20mA, with display

Overview

The VTG190series of pipeline-mounted intelligent temperature and humidity sensors can meet the temperature and humidity measurement requirements in scenarios that demand high precision, high reliability, and high stability in operation. The product is flexible to use. The temperature measurement range has as many as seven ranges for on-site selection, such as 0 to 50°C, -10 to 50°C, -10 to 60°C, etc. It can be compatible with various output modes, including 0 to 5V, 0 to 10V, 4 to 20mA, and RS485, to meet the needs of automatic control systems and the Internet of Things systems. It is quick and easy to install. After passing the lead wires through the PG9 terminal connector and completing the wiring, it can be fixedly installed on the air duct through the sensor body and the snap ring.



VTG290 Temperature Humidity Transmitter

Product Features

- High - precision temperature and humidity sensor
- Achieve accurate temperature and humidity measurement in HVAC (Heating, Ventilation and Air Conditioning) applications.
- Full-range measurement from 0 to 100% RH
- It has multiple selectable output modes, such as 0 - 5V, 0 - 10V, 4 - 20mA, RS485 and so on.
- It supports the use of an external Bluetooth debugger for on-site calibration.
- It is easy to install and requires little maintenance work.
- There are two optional appearances: with a display screen and buttons, and without a display screen.

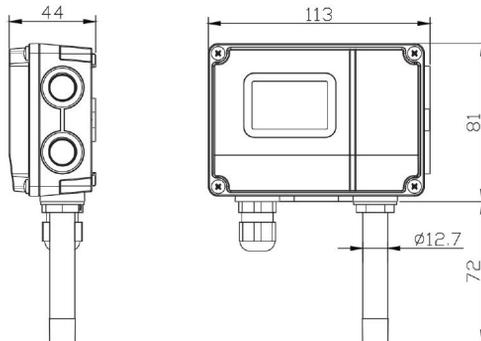


Product Model

model	Output
VTG290	Three wire current 4-20mA, three wire voltage 0-10V, RS485 (Modbus RTU) compatible
VTG290-1	Three wire current 4-20mA, three wire voltage 0-10V, RS485 (Modbus RTU) compatible, , with display
VTG290-2	Three wire current 4-20mA, three wire voltage 0-5V, RS485 (Modbus RTU) compatible
VTG290-3	Three wire current 4-20mA, three wire voltage 0-5V, RS485 (Modbus RTU) compatible, , with display
VTG290-4	2-wire system current 4-20mA
VTG290-5	2-wire current 4-20mA, with display

Overview

The VTG290 series of wall-mounted intelligent temperature and humidity sensors can meet the temperature and humidity measurement requirements in scenarios that demand high precision, high reliability, and high stability in operation. The product is flexible to use. The temperature measurement range has as many as seven ranges for on-site selection, such as 0 to 50°C, -10 to 50°C, -10 to 60°C, etc. It can be compatible with various output modes, including 0 to 5V, 0 to 10V, 4 to 20mA, and RS485, to meet the needs of automatic control systems and the Internet of Things systems. It is quick and easy to install. After passing the lead wires through the PG9 terminal connector and completing the wiring, it can be fixedly installed through the sensor body.



VTG390 Temperature Humidity Transmitter

Product Features

- High precision temperature sensor
- Accurate temperature measurement in HVAC applications
- Multiple output modes are available, including 0-5V, 0-10V, 4-20mA, RS485, etc
- Easy installation and low maintenance workload
- There are two options for appearance, with display screen and buttons/no display

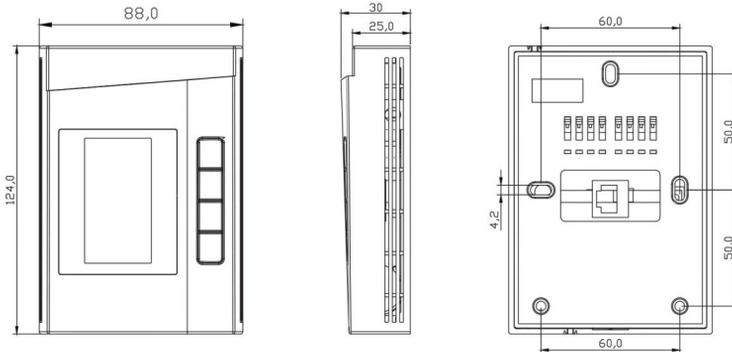


Product Model

model	Output
VTG390	Three wire current 4-20mA, three wire voltage 0-5V/0-10V, RS485 (Modbus RTU) compatible
VTG390-1	Three wire current of 4~20mA, three wire voltage of 0-5V/0~10V, compatible with RS485 (Modbus RTU), with display
VTG390-2	2-wire system current 4-20mA
VTG390-3	2-wire current 4-20mA, with display

Overview

The wall mounted VTG390 series intelligent temperature sensor can meet the temperature measurement needs of high-precision, high reliability, and high stability operation scenarios. The product is flexible in use, with a temperature measurement range of 0-50 °C- 10~60 °C- Up to seven range options can be selected on-site, including 20~80 °C, and can be compatible with output modes such as 0-5V/0~10V, 4~20mA, RS485, etc., meeting the requirements of automatic control systems and IoT systems. Installation is fast and convenient. After threading the leads through the backplane to complete the wiring, the upper and lower shells of the transmitter can be aligned and fastened together.



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