

Over 20 years of R&D and Manufacturer

HENGKO TECHNOLOGY CO., LTD.



Leading Supplier of Temperature, Humidity and Dew Point Monitoring Solutions



www.hengkometer.com

COMPANY PROFILE

HENGKO Technology Co., Ltd. is a professional technical enterprise that integrates R&D, manufacturing, sales, and service of temperature and humidity dew point transmitters.

Deeply engaged in the industry for more than 20 years, HENGKO adheres to the mission "solving the problems of filtration, perception, and analysis in the gas and liquid world, Empower the Future of Technology, Help Life Thrive". With the aim of filling the product functional gap in the field of environmental measurement, HENGKO solves the technical difficulties faced by temperature, humidity, and dew point measurement, and helps customers continuously improve their product competitiveness.

We have a team of engineers with strong independent innovation capabilities and rich industry customization experience, as well as a systematic, rigorous, and efficient product design and production system. From technical services to product development, from basic measurement to high-end applications, we provide customers with comprehensive temperature and humidity measurement solutions.

Our products are widely used in automobile manufacturing, rail transit, aviation, high-speed rail, bio-pharmaceutical, gas, compressed air, electronic devices, smart agriculture, warehouse, logistics and food processing and other industries.

CERTIFICATIONS



















Sense a Better World!

Different industries and fields have different requirements for temperature and humidity measurement. Relying on extensive industry application experience and professional product knowledge, HENGKO's process engineers and system designers will tailor-make temperature and humidity measurement solutions that take both price and performance advantages into account in order to meet all your custom development needs.

HENGKO temperature and humidity instruments are widely used in industries such as automotive manufacturing, rail transit, aviation, high-speed rail, biopharmaceuticals, gases, compressed air, electronic devices, smart agriculture, warehouses, logistics, and food processing.

Applications





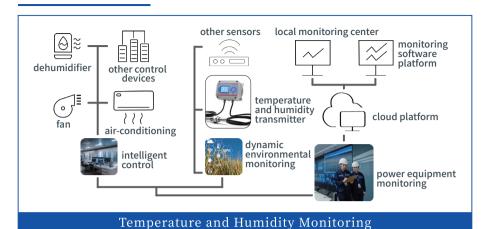
Environmental Monitoring of Central Computer Room

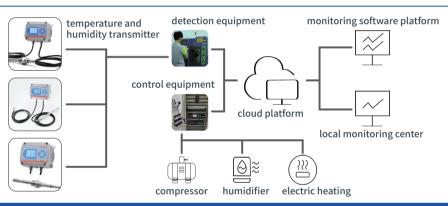




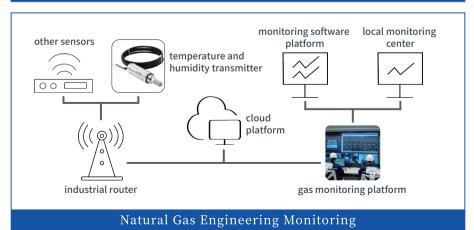


Applications









CATALOGUE

Classified by Product Types

High Precision, Stable and Durable Types

	[easurement

HG808-D Series Precision & Stability · Online	Dew Point Transmitter08
HG808-G Series Corrosion-Resistant \cdot Online	Dew Point Transmitter10
HG808-A Series Ultra-High Temperature · On	ine Dew Point Transmitter16
HG602-D Series Precision & Stable Type · Dev	Point Transmitter12
HG602-G Series Corrosion-Resistant · Dew Po	int Transmitter14
HG602-C Series Minimal Type · Dew Point Tra	nsmitter16
Temperature and Humidity Measurement	
HG808-T Series High-Temperature · Temp & F	RH Transmitter24
HG808-H Series High-Humidity \cdot Temp & RH	Transmitter26
HG808-F Series Corrosion-Resistant · Temp &	RH Transmitter28
HG808-C Series High Precision · Temp & RH	Fransmitter30
HG808-C Pro Ultra-High Precision Type · Tem	p & RH Transmitter32
Practical and Reliable Types	
HG803 Temperature and Humidity Transmitters	s for Multi-environmental Applications
Split Probe	34
Replaceable Probe	36
Integrated Probe	37
Air Duct Probe	38

HT600 Series RS485 Temperature and Humidity Transmitter
HT605 Temperature and Humidity Transmitter
HT606 Temperature and Humidity Transmitter40
HT607 Temperature and Humidity Transmitter40
HT801P Temperature and Humidity Transmitter
Cost-efficient Types
HG630 Integrated Temp/Humidity Transmitter
HG631 Temp/Humidity Transmitter with Replaceable Probe
Handheld Dew Point Temperature and Humidity Meter
HG970 Handheld Temperature and Humidity Calibrator47
HG981 High Temperature Handheld Dew Point Temperature and Humidity Meter48
HG982 Split Type Handheld Dew Point Temperature and Humidity Meter49
Probe
I2C Probe with OEM Support50
RHT Temperature and Humidity Sensor Probe Series51
Sensor Probe Housing54
Optional Accessories
Gas Sampling Kits56
Power Adapter

HG808 Series

Online Dew Point Transmitter

HG808 Series Online Dew Point Transmitter is specifically engineered for demanding industrial environments, including low humidity or ultra-low dew point conditions; corrosive atmospheres containing acidic or alkaline gases such as HF, Cl₂, and NH₃; as well as environments exposed to oil contamination, salt spray, organic solvents, and other common corrosive agents. It is also well-suited for harsh scenarios involving oil and gas, dust, flow fluctuations, pressures from 0 to 16 bar, mild contamination, and chemical exposure—whether individually or in combination.

HG808 Series delivers precise and stable performance, offering high accuracy, high resolution, fast response, and strong reliability. It features excellent repeatability, durability, long-term stability, and outstanding sensor resistance to contamination.



Product Features

- ► Accurate and Stable: Dew point monitoring in ultra-high temperature environments, corrosive atmospheres, and extreme low dew point conditions down to -60°C
- \blacktriangleright Split type/duct type probe with strong anti pollution and oil resistance ability
- \blacktriangleright High-quality aluminium alloy housing ensures the normal and stable operation of the transmitter's internal components
- ▶ Analog output with 15 high-resolution bits, digital output with optional 0.1 or 0.01 resolution
- ▶ Single register and multi register reading support
- \blacktriangleright 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, indus-trial grade ESD safety protection, and power supply anti reverse connection function

Probe Types



Split type probe 0A#



Split type probe 0B#



Split type probe 8A#



Split type probe 8B#



316L stainless steel sintered housing



316L stainless steel grid housing

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 threaded Stainless steel probe



G1/2 Hexagonal threaded Stainless steel probe



NPT1/2 Hexagonal threaded Stainless steel probe



M27*2.0 Hexagonal threaded Stainless steel probe



Flange Stainless steel probe

HG808 - D Series

Precision & Stability · Online Dew Point Transmitter

Introduction

HG808-D is designed for high-precision humidity monitoring in extremely dry environments. With its high accuracy, wide measuring range, and industrial-grade stability, it precisely measures trace moisture in dry and inert gases, providing reliable dew point data support for applications such as lithium battery production, semiconductor manufacturing, and food and pharmaceutical industries.



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

Specifications

- Dew Point Range: -60 ... +90°C
- Dew Point Accuracy: ±2°C (± 3.6 °F) Td
- Temperature Range: -40 ... +90°C
- Temperature Accuracy: $\pm 0.1^{\circ}$ C(@23°C)
- Temperature-Long-term stability: ≤0.1°C/Y
- Humidity-Long-term stability: ≤1%RH/Y
- Digital Output: Temperature, Humidity, Dew Point, PPM (Humidity and PPM for reference only)
- Output Signal: Temperature and Dew Point 4 20mA / 0 5V / 0 10V (Choose one out of three)
- Pressure Resistance: 16 bar
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps
- Operating Range: -20°C ... +60°C, 0%RH ... 95%RH (non-condensing)
- Acquisition frequency: Fastest response time is 1 second; adjustable via PLC
- Refer to the product manual for detailed specifications

Recommended Operating Conditions:

Temperature: -40 ... +90°C Dew Point: -60 ... +90°C

Application Environment: Low-humidity or extremely dry environments with a wide dew point range. Suitable for stable airflow, wind speed, and pressure conditions, and free from corrosive media, oil, or chemical vapors.

HG808 - D Series

Precision & Stability · Online Dew Point Transmitter

Customized Probe Solutions Tailored to Your Operating Conditions

· · · Structure, Shape, Length, Material, Installation Method, etc



★ 4 Customizable Probe Options for Diverse Application Scenarios

Why Choose HG808-D Series?

- Accurate Measurement, Ultra-Low Dew Point
- & ±2°C dew point accuracy, wide measurement range from -60°C ... +90°C. Usable under high temperatures below 90°C. Annual drift <0.1°C, ensuring long-term continuous monitoring.
- Flexible Output, Easy Integration
- & Supports RS485 digital signals and dual analog outputs (4 20mA / 0 5V / 0 10V), compatible with Modbus-RTU protocol, seamlessly integrates with PLC/DCS systems.
- ※ Industrial-Grade Protection, Reliability
- & Designed to withstand 16 bar pressure, 316L stainless steel sensor housing, anti-condensation, high-temperature resistant. Suitable for compressed air, vacuum drying, process gases, and other high humidity environments.
- ※ Full Features, Excellent Value
- & Simultaneously measures temperature, humidity, dew point, and PPM value. Includes a recording function and can connect to back-end software for one-click report generation and analysis.



- Semiconductor Manufacturing Protective Gas Monitoring
- ♥ Purity Control of Air Separation Nitrogen Generation Units
- ♥ Post-Treatment Monitoring of Compressed Air Drying Systems
- ♂ Insulating Gas Monitoring in the Power Industry

HG808 - G Series

Corrosion-Resistant · Online Dew Point Transmitter

Introduction

HG808-G is built for corrosive industrial environments. Featuring 316L stainless steel with a special protective coating, it withstands acids, alkalis, solvents, and salt spray. Ideal for ultra-low humidity control and process optimization in chemical, pharmaceutical, and new energy applications.



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

Specifications

- Dew Point Range: -60 ... +20°C
- Dew Point Accuracy: ±3°C (±5.4°F) Td
- Temperature Range: -20 ... +60°C
- Temperature Accuracy: ±0.2°C (@23°C)
- Temperature-Long-term stability: ≤0.1°C/Y
- Humidity-Long-term stability: ≤1%RH/Y
- Digital Output: Temperature, Humidity, Dew Point, PPM (Humidity and PPM for reference only)
- Output Signal: Temperature and Dew Point 4 20mA / 0 5V / 0 10V (Choose one out of three)
- Pressure Resistance: 16 bar
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps
- Operating Range: -20°C ... +60°C, 0%RH ... 95%RH (non-condensing)
- Acquisition frequency: Fastest response time is 1 second; adjustable via PLC
- Refer to the product manual for detailed specifications

Recommended Operating Conditions:

Temperature: -20 ... +60°C Dew Point: -60 ... +20°C

Application Environment: Ultra-dry or low-humidity environments with HF, Cl₂, NH₃, oil mist, salt spray, organic solvents, dust, flow fluctuation, 0–16 bar pressure, light contamination, or chemical exposure.

HG808 - G Series

Corrosion-Resistant · Online Dew Point Transmitter

Customized Probe Solutions Tailored to Your Operating Conditions

· · · Structure, Shape, Length, Material, Installation Method, etc · · ·



★ 2 Customizable Probe Options for Diverse Application Scenarios

Why Choose HG808-G Series?

- Outstanding Corrosion Resistance
- & Integrated anti-corrosion structure with IP65 protection, easily handles strong acids, alkalis, and electrolyte vapors. Ideal for harsh environments with oil-gas mixtures, chemical corrosion, and dust impact.
- Robust and Durable Protection
- & IP65-rated cast aluminum housing with 316L stainless steel probe, withstands up to 16 bar pressure and passes rigorous tests in corrosive and dusty conditions.
- Flexible Output, Easy Integration
- & Supports RS485 digital signal and dual analog outputs (4-20mA/0-5V/0-10V), compatible with Modbus-RTU for seamless integration into PLC/DCS systems.
- Full Functionality, High Cost Performance
- & Measures temperature, humidity, dew point, and PPM; with built-in data logging and one-click report generation via backend software.



- **♂** Lithium Battery Electrolyte Filling / Electrode Coating
- **♂** Pharmaceutical API Drying
- Flue Gas Desulfurization (FGD) Towers

HG808 - A Series

Ultra-High Temperature · Online Dew Point Transmitter

Introduction

HG808-A is a high-performance dew point transmitter designed for extreme temperatures and harsh industrial environments. It delivers accurate trace moisture measurement even at +80 ... +180°C, providing a reliable solution for high-temperature dew point monitoring.



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

Specifications

- Dew Point Range: -20 ... +100°C
- Dew Point Accuracy: ±3°C (±5.4°F) Td
- Temperature Range: +80 ... +180°C
- Temperature Accuracy: ±0.3°C (@85°C)
- Temperature-Long-term stability: ≤0.1°C/Y
- Humidity-Long-term stability: ≤1%RH/Y
- Digital Output: Temperature, Humidity, Dew Point, PPM (Humidity and PPM for reference only)
- Output Signal: Temperature and Dew Point 4 20mA / 0 5V / 0 10V (Choose one out of three)
- Pressure Resistance: 16 bar
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps
- Operating Range: -20°C ... +60°C, 0%RH ... 95%RH (non-condensing)
- Acquisition frequency: Fastest response time is 1 second; adjustable via PLC
- Refer to the product manual for detailed specifications

Recommended Operating Conditions:

Temperature: +80 ... +180°C Dew Point: -20 ... +100°C

Application Environment: Low-humidity or ultra-dry environments, including high temperature, oil vapor, dust, flow fluctuations, 0–16 bar pressure, trace corrosive gases, light contamination, and chemical exposure—individually or combined.

HG808 - A Series

Ultra-High Temperature · Online Dew Point Transmitter

Customized Probe Solutions Tailored to Your Operating Conditions

· · · Structure, Shape, Length, Material, Installation Method, etc



★ 4 Customizable Probe Options for Diverse Application Scenarios

Why Choose HG808-A Series?

* High-Temperature Monitoring with Precision

& Equipped with a sensor that with stands up to 180°C, it covers a dew point range of -20°C ... +100°C, ensuring stable performance in +80°C ... +180°C environments.

※ Industrial-Grade Protection Against Corrosion

& Built with a 316L stainless steel probe and rated for 16 bar pressure, it resists oil, dust, and corrosive gases — suitable for petrochemical, flue gas, and other harsh applications.

Flexible Output, Easy System Integration

& Supports RS485 digital and dual analog outputs, compatible with Modbus-RTU, allowing seamless integration with PLC/DCS systems for smarter industrial automation.

* Full Functionality, Excellent Value

& Simultaneously measures temperature, humidity, dew point, and PPM. With built-in data logging and software connectivity, one-click reporting and analysis is effortless.



- ♂ Industrial Flue Gas Desulfurization (FGD) Emissions
- ♂ Lithium Battery Electrode Sheet Drying Rooms



HG602 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. Compact structure, high integration, 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.

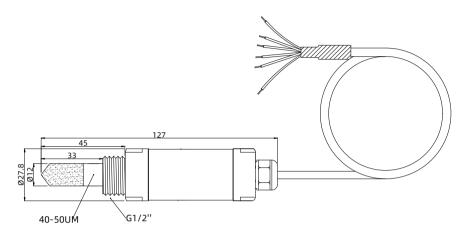
Product Features

- ▶ 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

HG602 Series

Dew Point Transmitter

- Installation Dimensions



Typical Installation Scenarios --





Downstream of refrigerated dryers



HG602 - D Series

Precision & Stable Type · Dew Point Transmitter

Introduction

HG602-D is a compact dew point transmitter designed for industrial environments, ideal for OEM applications such as glove boxes, compressed air dryers, and plastic dryers, as well as in industries like pharmaceuticals and power. With high cost-performance and long-term stability, it serves as a core tool for dew point monitoring, supporting cost reduction and process upgrades.

Recommended Operating Conditions:

Temperature Range: -40 ... +60°C Dew Point Range: -60 ... +60°C

Application Environment: Suitable for 0–16 bar pressure, and drying of Various Industrial Gases (Argon, Nitrogen, Oxygen, Ammonia, Air, etc.)

Optional Gas Sampling Unit, Specifically designed to solve leakage issues during dew point monitoring in various gas pipelines.



- Dew Point Range: -60 ... +60°C
- lacktriangle Accuracy: ± 2 °C (± 3.6 °F) Td
- Operating Temperature: -40 ... +60°C
- Voltage: DC 10V 28V
- Protection Level: IP65 (dustproof and waterproof, suitable for industry)
- Long-term Stability: <1°C/Y
- lacktriangledown Output Signals: 4 20mA / 0 5V / 0 10V + RS485
- \blacksquare Installation: G1/2" threaded connection; supports flange/sampling unit expansion
- Pressure Resistance: 16 bar
- Baud rate: 1200 / 2400 / 4800 / 9600 / 19200, and 115200 bps can be set; default is 9600 bps
- Acquisition frequency: Fastest response time is 1 second; adjustable via PLC
- Refer to the product manual for detailed specifications

★ Key Features

HG602 - D Series

Precision & Stable Type · Dew Point Transmitter



& Measures dew point from -60°C ... +60°C with ±2°C accuracy, ensuring precise environmental control

Chemical Resistance

& Withstands exposure to compressor oil and most chemicals, ensuring stable long-term performance in harsh industrial conditions.

Dual Signal Output

& Supports RS485 digital and dual analog outputs (4 - 20mA / 0 - 5V / 0 - 10V), compatible with Modbus-RTU for seamless PLC/DCS integration.

Wide Voltage Input

Operates with 10 – 28V DC power supply and features reverse-polarity protection for safe, stable operation.

Anti-Condensation Function

& Built-in heating activates in high-humidity environments to prevent sensor condensation, increasing data reliability by 30%.

Compact Design

& Small footprint with high integration—ideal for embedded installation in space-limited production lines such as those in the new energy industry.

Why Choose HG602-D Series?

OEM-Optimized Design for Precise Adaptation

& Downward-facing probe ensures full gas exposure with typical $\pm 2^{\circ}$ C accuracy. Wide voltage input (DC 10 – 28V) supports industrial power systems and continuous online monitoring.

Anti-Condensation & Stable as ever

& Built-in heating prevents condensation in cold, humid environments. Excellent chemical resistance shields against compressor oil and industrial solvents, ensuring long-term stability and service life.

Seamless Integration & Smart Connectivity

& Offers both RS485 digital and analog outputs (4-20mA/0-5V/0-10V), fully compatible with PLC/DCS systems. Supports Modbus-RTU protocol for easy integration into industrial IoT platforms.



- ♂ Compressed Air Drying Systems High-pressure dew point monitoring
- ♥ Plastic Pellet Dryers Prevents moisture residue and quality issues
- Pharmaceutical/Food Drying Processes Compliant with GMP/HACCP standards
- ✓ OEM Equipment Integration Compact design fits customized system requirements

HG602-G Series

Corrosion-Resistant · Dew Point Transmitter

Introduction

HG602-G is a compact dew point transmitter specifically designed for harsh industrial environments. Its core strengths lie in exceptional corrosion resistance and long-term stability, making it especially suitable for applications with high material compatibility demands—such as lithium battery production, chemical processing, and compressed air drying.

Recommended Operating Conditions:

Temperature Range: -40 ... +60°C

Dew Point Range: -60 ... +20°C

Application Environment: Engineered for challenging environments — from HF, chlorine, and ammonia gas to oil mist, salt spray, and organic solvents. Handles harsh conditions including dust, fluctuating flow, pressures up to 16 bar, trace corrosives, and light chemical contamination.

Optional Gas Sampling Unit,

Specifically designed to address gas leakage monitoring issues in industrial drying pipelines (Argon, Nitrogen, Oxygen, Helium, Air, etc.)

- Dew Point Range: -60 ... +20°C
- Accuracy: ±3°C (±5.4°F) Td
- Operating Temperature: -40 ... +60°C
- Voltage: DC 10V 28V
- Protection Level: IP65 (dustproof and waterproof, suitable for industry)
- Long-term Stability: <1°C/Y
- Output Signals: 4 20mA / 0 5V / 0 10V + RS485
- Installation: G1/2" threaded connection; supports flange/sampling unit expansion
- Pressure Resistance: 16 bar
- Baud rate: 1200 / 2400 / 4800 / 9600 / 19200, and 115200 bps can be set; default is 9600 bps
- Acquisition frequency: Fastest response time is 1 second; adjustable via PLC
- Refer to the product manual for detailed specifications



★ Key Features

HG602-G Series

Corrosion-Resistant · Dew Point Transmitter

* Corrosion-Resistant Design

& Stainless steel housing with specialized coating resists acids, alkalis, and salt spray—ideal for lithium battery, chemical, pharmaceutical, and electronics industries.

***** High-Accuracy Measurement

& -60 ... \pm 20°C range with \pm 3°C accuracy, supports fine resolution outputs (0.01 / 0.1°C) for demanding industrial applications.

Flexible Compatibility

& Dual signal output supports RS485 (Modbus-RTU) and analog signals (4 – 20mA / 0 – 5V / 0 – 10V), easily integrated into PLC/DCS systems.

** Anti-Condensation & Wide Voltage

& Built-in heating prevents condensation in high-humidity or freezing conditions. Operates on a wide 10 – 28V DC input with reverse-polarity protection.

Compact Design

& Small footprint with high integration, ideal for space-limited installations in new energy production lines. Plug-and-play, easy to maintain.

Why Choose HG602-G Series?

Exceptional Corrosion Resistance & Extended Lifespan

& 316L stainless steel with nano-coated finish resists strong acids, alkalis, and salt mist. Tested 30% longer lifespan and lowest failure rate in its class—reduces long-term operating costs by over 40%.

Anti-Condensation & Stable as ever

& Built-in heating prevents condensation in cold, humid environments. Excellent chemical resistance shields against compressor oil and industrial solvents, ensuring long-term stability and service life.

Seamless integration, smart connectivity

& Offers RS485 digital output and optional analog outputs (4 - 20mA/0 - 5V/0 - 10V), compatible with PLC/DCS systems. Supports standard Modbus-RTU protocol for easy integration into the Industrial Internet of Things (IIoT).



- **♂** Compressed air drying systems
- ♂ Lithium battery electrolyte filling glove boxes
- **♂** Pharmaceutical sterile cleanrooms
- **♂** Food drying production lines

HG602-C Series

Minimal Type · Dew Point Transmitter

Introduction

HG602-C is a dew point transmitter specially designed for refrigerated air dryers, offering high accuracy, stability, and cost efficiency. Its compact form and fast response make it an ideal solution for improving compressed air system performance and reducing industrial operating costs.

Recommended Operating Conditions:

Temperature Range: -20 ... +50°C Dew Point Range: -30 ... +50°C

Application Environment: Suitable for 0–16 bar pressure, and drying of Various Industrial Gases (Argon, Nitrogen, Oxygen, Ammonia, Air, etc.)

Optional Gas Sampling Unit, Specifically designed to solve leakage issues during dew point monitoring in various gas pipelines.



- Dew Point Range: -60 ... +50°C
- Accuracy: ±2°C (±3.6°F) Td
- Operating Temperature: -20 ... +50°C
- Voltage: DC 10V 28V
- Protection Level: IP65 (dustproof and waterproof, suitable for industry)
- Long-term Stability: <1°C/Y
- Output Signals: 4 20mA / 0 5V / 0 10V + RS485
- Installation: G1/2" threaded connection; supports flange/sampling unit expansion
- Pressure Resistance: 16 bar
- Baud rate: 1200 / 2400 / 4800 / 9600 / 19200, and 115200 bps can be set; default is 9600 bps
- Acquisition frequency: Fastest response time is 1 second; adjustable via PLC
- Refer to the product manual for detailed specifications

★ Key Features

HG602-C Series

Minimal Type · Dew Point Transmitter



& Dew point range from -60°C ... 50°C, ± 2 °C accuracy ensures precise control.

* Chemical Resistance*

& Withstands exposure to compressor oil and most chemicals, ensuring stable long-term performance in harsh industrial conditions.

Dual Signal Output

& Supports RS485 digital and dual analog outputs (4 - 20mA / 0 - 5V / 0 - 10V), compatible with Modbus-RTU for seamless PLC/DCS integration.

Wide Voltage Input

 $\& \,\,$ Operates with 10 – 28V DC power supply and features reverse-polarity protection for safe, stable operation.

Anti-Condensation Function

& Built-in heating activates in high-humidity environments to prevent sensor condensation, increasing data reliability by 30%.

Compact Design

& Small footprint with high integration—ideal for embedded installation in space-limited production lines such as those in the new energy industry.

Why Choose HG602-C Series?

* Tailored for Refrigerated Dryers

& Downward-facing probe ensures full gas contact with $\pm 1^{\circ}$ C typical accuracy. Wide voltage input (DC 10 – 28V) supports long-term online monitoring with industrial power supplies.

Anti-Condensation & Stable as ever

& Built-in heating prevents condensation in cold, humid environments. Excellent chemical resistance shields against compressor oil and industrial solvents, ensuring long-term stability and service life.

Seamless Integration & Smart Connectivity

 $\& RS485\ digital\ output\ +\ analog\ signal\ options\ (4-20mA\ /\ 0-5V\ /\ 0-10V),\ compatible\ with\ PLC/DCS\ systems.$ Supports Modbus-RTU for easy integration into IIoT environments.



- ✓ Dew point monitoring for compressed air systems (food/pharmaceutical industries)
- ${\mathfrak G}$ OEM equipment integration requiring long-term stable monitoring
- ♥ High-precision dew point control with low maintenance cost

HG808 Series

Temp & RH Transmitter

HG808 Series is a high-performance temperature and humidity transmitter specifically engineered for harsh industrial 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 monitoring under high-temperature, high-humidity, harsh, and standard industrial environments, as well as PPM-level humidity measurement
- ▶ Split type/duct type probe with strong anti pollution and oil resistance ability
- ▶ High-quality aluminium alloy housing ensures the normal and stable operation of the transmitter's internal components
- \blacktriangleright 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, indus-trial grade ESD safety protection, and power supply anti reverse connection function

Probe Types



Split type probe 0(A/B)#



Split type probe 5(A/B)#



Split type probe 3(A/B)#



Duct-type probe 6(A/B)#



Split type probe 8(A/B)#



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



316L stainless steel grid housing Suitable for 0#, 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 threaded Stainless steel probe



G1/2 Hexagonal threaded Stainless steel probe



NPT1/2 Hexagonal threaded Stainless steel probe



M27*2.0 Hexagonal threaded Stainless steel probe



Flange Stainless steel probe

HG808 - T Series

High-Temperature · Temp & RH Transmitter

Introduction

HG808-T is designed for high-temperature industrial environments. Withstand up to 200°C, suitable for glove boxes, drying kilns, petrochemical flue gas, and combustion systems—where conventional sensors fail.



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

Recommended Operating Conditions:

Temperature Range: +85 ... +180°C

Usable from -40 ... +85°C (accuracy not specified) and up to +200°C for short-term use.

Humidity Range: 0 ... 95% RH

Application Environment: Suitable for harsh conditions such as high temperature, oil and gas presence, dust, airflow fluctuations, 0–16 bar pressure, trace corrosive media, mild contamination, and chemical exposure (single or combined factors).

- Temperature Range: -40 ... +200°C
- Temperature Accuracy: ±0.3°C @85°C
- Humidity Range: 0 ... 100%RH (Recommended <95%RH)
- Humidity Accuracy: ±2.5%RH @85°C (10-90%RH)
- Temperature-Long-term stability: ≤0.1°C/Y
- Humidity-Long-term stability: ≤1%RH/Y
- Digital Output: Temperature, Humidity, Dew Point, PPM (Humidity and PPM for reference only)
- Output Signal: Temperature and Dew Point 4 20mA / 0 5V / 0 10V (Choose one out of three)
- Pressure Resistance: 16 bar
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps
- Operating Range: -20°C ... +60°C, 0%RH ... 95%RH (non-condensing)
- Acquisition frequency: Fastest response time is 1 second; adjustable via PLC
- Refer to the product manual for detailed specifications

HG808 - T Series

High-Temperature · Temp & RH Transmitter

Customized Probe Solutions Tailored to Your Operating Conditions

· · · Structure, Shape, Length, Material, Installation Method, etc · · ·



★ 3 Customizable Probe Options for Diverse Application Scenarios

Why Choose HG808-T Series?

- ***** High-Temperature Precision
- & Measures temperature and humidity up to 200°C with ± 0.3 °C temperature accuracy and ± 3 %RH humidity accuracy (@85°C).
- Flexible Output & Easy Integration
- & Supports RS485 digital and dual analog outputs (4 20mA / 0 5V / 0 10V), compatible with Modbus-RTU for seamless PLC/DCS integration.
- Durable Industrial Protection
- & IP65-rated cast aluminum housing with 316L stainless steel probe; withstands 16 bar pressure, and passes tests against oil-gas mixtures, chemical corrosion, and dust impact.
- & Simultaneously measures temperature, humidity, dew point, and PPM. Built-in data logging and software connectivity enable one-click reporting and analysis.



- **♂** High-temperature drying
- **♂** Combustion flue gas
- **♂** Petrochemical catalytic reforming
- **♂** Sulfur-containing exhaust gas monitoring
- **♂** Pharmaceutical cleanrooms
- **♂** High-temperature sterilization cabinets

HG808 - H Series

High-Humidity · Temp & RH Transmitter

Introduction

Engineered specifically for industrial environments with 80–95% RH, HG808-H delivers precise and reliable temperature and humidity monitoring in even the most challenging applications—such as food ripening and fermentation, tobacco production, wet gas turbine inlets, greenhouses, and steam pressurized systems.



Applicable probe models: 0A# probe, 3A# probe, 6A# probe, 0B# probe, 3B# probe, 6B# probe Recommended Operating Conditions:

Temperature Range: -40 ... +100°C Humidity Range: 40 ... 95% RH

Usable from 0 ... 40%RH (accuracy not specified) and up to 95%RH for short-term use.

Application Environment: Suitable for harsh conditions such as high humidity, oil and gas presence, dust, airflow fluctuations, 0–16 bar pressure, trace corrosive media, mild contamination, and chemical exposure (single or combined factors).

- Temperature Range: -40 ... +100°C
- Temperature Accuracy: ±0.1°C (@23°C)
- Humidity Range: 0 ... 100% RH (Recommended <95% RH)
- Humidity Accuracy: ±2% RH (@23°C, 40-95% RH)
- Temperature-Long-term stability: ≤0.1°C/Y
- Humidity-Long-term stability: ≤1%RH/Y
- Digital Output: Temperature, Humidity, Dew Point, PPM (Humidity and PPM for reference only)
- Output Signal: Temperature and Dew Point 4 20mA / 0 5V / 0 10V (Choose one out of three)
- Pressure Resistance: 16 bar
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps
- Operating Range: -20°C ... +60°C, 0%RH ... 95%RH (non-condensing)
- Acquisition frequency: Fastest response time is 1 second; adjustable via PLC
- Refer to the product manual for detailed specifications

HG808 - H Series

High-Humidity · Temp & RH Transmitter

Customized Probe Solutions Tailored to Your Operating Conditions

· · · Structure, Shape, Length, Material, Installation Method, etc



★ 6 Customizable Probe Options for Diverse Application Scenarios

Why Choose HG808-H Series?

- Solves short lifespan and damage issues in high humidity environments
- $\& \hspace{1.5cm}$ Stable and corrosion-resistant in ultra-high humidity up to <95% RH.
- Solves inaccurate readings under high humidity
- & Ensures long-term accuracy at 80%-95% RH.





- **♂** Food baking
- **☞** Fermentation workshops
- **♂** Pharmaceutical steam sterilizers
- ♂ Petrochemical catalytic cracking units
- **♂** Cold chain storage
- **Mushrooms**

HG808 - F Series

Corrosion-Resistant · Temp & RH Transmitter

Introduction

HG808-F is purpose-built for corrosive industrial environments, effectively resisting acids, alkalis, salt spray, and chemical agents. It ensures safe and accurate environmental data in harsh applications such as marine engineering, photovoltaic energy storage, and chemical and pharmaceutical manufacturing.



Applicable probe models: 0A# probe, 3A# probe Recommended Operating Conditions:

Temperature Range: -40 ... +120°C Humidity Range: 0 ... 95% RH

Application Environment: Engineered for challenging environments — from HF, chlorine, and ammonia gas to oil mist, salt spray, and organic solvents. Handles harsh conditions including dust, fluctuating flow, pressures up to 16 bar, trace corrosives, and light chemical contamination.

- Temperature Range: -40 ... +120°C
- Temperature Accuracy: ±0.2°C (@23°C)
- Humidity Range: 0 ... 100% RH (Recommended <95% RH)
- Humidity Accuracy: ±2.5% RH (@23°C, 10–90% RH)
- Temperature-Long-term stability: ≤0.1°C/Y
- Humidity-Long-term stability: ≤1%RH/Y
- Digital Output: Temperature, Humidity, Dew Point, PPM (Humidity and PPM for reference only)
- Output Signal: Temperature and Dew Point 4 20mA / 0 5V / 0 10V (Choose one out of three)
- Pressure Resistance: 16 bar
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps
- Operating Range: -20°C ... +60°C, 0%RH ... 95%RH (non-condensing)
- Acquisition frequency: Fastest response time is 1 second; adjustable via PLC
- Refer to the product manual for detailed specifications

HG808 - F Series

Corrosion-Resistant · Temp & RH Transmitter

Customized Probe Solutions Tailored to Your Operating Conditions

· · · Structure, Shape, Length, Material, Installation Method, etc · · ·



★ 2 Customizable Probe Options for Diverse Application Scenarios

Why Choose HG808-F Series?

Outstanding Corrosion Resistance

& Stainless steel housing with corrosion-resistant sensor head resists acids, alkalis, salt spray, and chemical gases—extending service life in demanding environments like chemical and pharmaceutical industries.

Industrial-Grade Protection

& Withstands up to 16 bar pressure. Resistant to oil, dust, and corrosive gases—ideal for petrochemical plants, flue gas monitoring, and other harsh applications.

Flexible Output & Easy Integration

 $\& \hspace{10mm}$ Supports RS485 digital and dual analog outputs. Fully compatible with Modbus-RTU protocol for seamless integration with PLC/DCS systems.

** Full Functionality, Excellent Value

& Measures temperature, humidity, dew point, and PPM. Built-in data logging with software connectivity allows for one-click reporting and efficient data analysis.



- **♂** Lithium battery electrolyte workshops and coating lines
- ♂ Disinfectant spray zones in pharmaceutical cleanrooms
- High-humidity and cleaner-corrosive environments in food processing

HG808 - C Series

High Precision · Temp & RH Transmitter

Introduction

HG808-C is designed for high-precision temperature and humidity monitoring. With excellent accuracy and long-term stability, it's ideal for biopharma, precision manufacturing, and labs, and can be integrated into climate chambers and temperature test systems as a standard humidity sensor.



Applicable probe models: 0A# probe, 3A# probe, 0B# probe, 3B# probe

Recommended Operating Conditions:

Temperature Range: -50 ... +150°C Humidity Range: 0 ... 90% RH

Application Environment: Stable airflow, flow rate, and pressure conditions without corrosive media, oil, or chemical vapors.

- Temperature Range: -50 ... +150°C
- Temperature Accuracy: ±0.1°C (@23°C)
- Humidity Range: 0 ... 100% RH (Recommended <90% RH)
- Humidity Accuracy: ±1.5% RH (@23°C, 10–90% RH)
- Temperature-Long-term stability: ≤0.1°C/Y
- Humidity-Long-term stability: ≤1%RH/Y
- Digital Output: Temperature, Humidity, Dew Point, PPM (Humidity and PPM for reference only)
- Output Signal: Temperature and Dew Point 4 20mA / 0 5V / 0 10V (Choose one out of three)
- Pressure Resistance: 16 bar
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps
- Operating Range: -20°C ... +60°C, 0%RH ... 95%RH (non-condensing)
- Acquisition frequency: Fastest response time is 1 second; adjustable via PLC
- Refer to the product manual for detailed specifications

HG808 - C Series

High Precision · Temp & RH Transmitter

Customized Probe Solutions Tailored to Your Operating Conditions

· · · Structure, Shape, Length, Material, Installation Method, etc · · ·



★ 4 Customizable Probe Options for Diverse Application Scenarios

Why Choose HG808-C Series?

- Accurate & Consistent
- \$\delta 0.1°C temperature accuracy, \pm 1.5%RH humidity accuracy (@23°C), Wide range: -50°C ... +150°C, 0 ... 100%RH; Annual drift <0.1°C / <1%RH long-term stability.</p>
- ※ Flexible Output, Seamless Integration
- & Supports RS485 digital + dual analog outputs (4 20mA / 0 5V / 0 10V), Modbus-RTU compatible, easily integrates with PLC/DCS systems.
- ※ Industrial-Grade Protection, Strong Adaptability
- & Withstands up to 16 bar pressure; aluminum housing resists dust and EMI; Supports remote/duct probe installation; optional 316L stainless steel filter& Ideal for cleanrooms, pharmaceutical workshops, and demanding environments.
- ※ All-in-One Functionality, Excellent Value
- & Simultaneous measurement of temperature, humidity, dew point, and PPM; Built-in logging.



- **♥** Pharmaceutical GMP Workshops
- **☞** Medical Cleanrooms
- **♂** Constant Temperature and Humidity Test Chambers
- **♂** Incubators
- **♂** Semiconductor Cleanrooms

HG808 - C Pro Series

Ultra-High Precision Type · Temp & RH Transmitter

Introduction

HG808-C Pro is designed for precise temperature and humidity monitoring, offering high accuracy and long-term stability. Widely used in biopharma, precision manufacturing, labs, and as a standard humidity sensor in environmental test chambers.



Applicable probe models: 0A# probe, 3A# probe, 0B# probe, 3B# probe

Recommended Operating Conditions:

Temperature Range: -50 ... 150°C Humidity Range: 0 ... 90% RH

Application Environment: Stable airflow, flow rate, and pressure conditions without corrosive media, oil, or chemical vapors.

- Temperature Range: -70 ... +180°C
- Temperature Accuracy: ±0.1°C (@23°C)
- Humidity Range: 0 ... 100% RH (Recommended <90% RH)
- Humidity Accuracy: ±0.8% RH (@23°C, 40 ... 70% RH)
- Temperature-Long-term stability: ≤0.1°C/Y
- Humidity-Long-term stability: ≤1%RH/Y
- Digital Output: Temperature, Humidity, Dew Point, PPM (Humidity and PPM for reference only)
- Output Signal: Temperature and Dew Point 4 20mA / 0 5V / 0 10V (Choose one out of three)
- Pressure Resistance: 16 bar
- Baud rate: 1200/2400/4800/9600/19200/115200 can be set, the default is 9600 bps
- Operating Range: -20°C ... +60°C, 0%RH ... 95%RH (non-condensing)
- Acquisition frequency: Fastest response time is 1 second; adjustable via PLC
- Refer to the product manual for detailed specifications

HG808 - C Pro Series

Ultra-High Precision Type · Temp & RH Transmitter

Customized Probe Solutions Tailored to Your Operating Conditions

· · · Structure, Shape, Length, Material, Installation Method, etc · · ·



★ 4 Customizable Probe Options for Diverse Application Scenarios

Why Choose HG808-C Pro Series?

- Accurate & Consistent
- \$\delta 0.1°C temperature accuracy, \pm 1.5%RH humidity accuracy (@23°C), Wide range: -50°C ... +150°C, 0 ... 100%RH; Annual drift <0.1°C / <1%RH long-term stability.</p>
- ※ Flexible Output, Seamless Integration
- & Supports RS485 digital + dual analog outputs (4 20mA / 0 5V / 0 10V), Modbus-RTU compatible, easily integrates with PLC/DCS systems.
- ※ Industrial-Grade Protection, Strong Adaptability
- & Withstands up to 16 bar pressure; aluminum housing resists dust and EMI; Supports remote/duct probe installation; optional 316L stainless steel filter& Ideal for cleanrooms, pharmaceutical workshops, and demanding environments.
- All-in-One Functionality, Excellent Value
- & Simultaneous measurement of temperature, humidity, dew point, and PPM; Built-in logging.



- **♂** Pharmaceutical GMP Workshops
- **♂** Constant Temperature and Humidity Test Chambers
- **♂** Incubators
- **♂** Semiconductor Cleanrooms

HG803 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

HG803 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:

①The RS485 signal output 24 - 20mA / 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: ±0.3°C(25°C), (higher precision optional)
- Humidity Accuracy: ±3%RH(60%RH, 25°C)(higher precision optional)
- Temperature Long term stability: ≤0.1°C/y
- Humidity Long term stability: ≤1%RH/y
- Signal Output :

①The RS485 signal output.The default temperature unit is °C °F can be customized

②4 - 20mA / 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

HG803 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 HG803 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: ±0.3°C(25°C), (higher accuracy optional)
- Humidity Accuracy: ±3%RH(60%RH, 25°C)(higher accuracy optional)
- Temperature Long term Stability: ≤0.1°C/y
- Humidity Long term Stability: ≤1%RH/y
- Signal Output :

①The RS485 signal output.The default temperature unit is °C °F can be customized

②4 - 20mA / 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°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

HG803 Temperature and Humidity Transmitter

Integrated Probe Type

Introduction

HG803 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 com mu-nication rooms,warehouse buildings, archival and cultural relics preservation, flower breeding, agricul-tural greenhouses,cement 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: ±0.3°C(25°C), (higher accuracy optional)
- Humidity Accuracy: ±3%RH(60%RH, 25°C)(higher accuracy optional)
- Long-term Temperature Stability: ≤0.1°C/y
- Long-term Humidity Stability: ≤1%RH/y
- Signal Output :

①The RS485 signal output.The default temperature unit is °C °F can be customized

24 - 20mA / 0 - 5V / 0 - 10V temperature and humidity two analog capacity + RS485 signal output

- Baud rate: 1200/2400/4800/9600/19200/115200can be set, Default is 9600 bps
- Transmitter circuit operating temperature: -20°C ... +60°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

HG803 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 HG803 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 - 20mA 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

①The RS485 signal output ②4 - 20mA / 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 probe (M20*1.5 / M27*2)



Flange duct probe (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: ±0.3°C(25°C),(higher accuracy optional)
- Humidity Accuracy: ±3%RH(60%RH, 25°C)(higher accuracy optional)
- Long-term Temperature Stability: ≤0.1°C/y
- Long-term Humidity Stability: ≤1%RH/y
- Signal Output :The RS485 signal output, 4 20mA temperature and humidity two analog

capacity + RS485 signal output

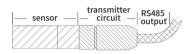
- Baud rate: 1200/2400/4800/9600/19200/115200can be set, Default is 9600bps
- Transmitter circuit operating temperature: -20°C ... +60°C, 0%RH ... 95%RH, Non-condensation
- 10V 30V wide DC voltage supply
- Industrial grade ESD safety protection and power supply reverse protection design
- Supports both single-register and multiple-register reading
- Sensitive, waterproof, fine dust and high temperature resistant probe

HT600 RS485

Output Temperature and Humidity Transmitter

High performance integrated industrial application fields

HT600 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; 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



HT607 Temperature and **Humidity Transmitter**

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



HT605 Temperature and **Humidity Transmitter**

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



HT606 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



HT801P Temperature and **Humidity Transmitter**

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

Temperature Accuracy: ±0.2°C (@0-65°C)

Response time:10S (wind speed:1m/s)

• Power:DC 4.5V - 24V

Power dissipation:<0.1W

● Humidity Accuracy: ±2.0%RH (@25°C, 10 ... 90%RH)

Specifications

- Temperature Range:-20 ... +80°C
- Humidity Range:0 ... 100%RH

(recommendation <90%RH)

- Temperature Long term Stability: ≤ 0.1°C/v
- Humidity Long term Stability: ≤ 1%RH/y
- Communication interface:RS485 / Modbus-RTU
- Baud rate:1200/2400/4800/9600/19200 can be set, default is 9600 bps

Applications

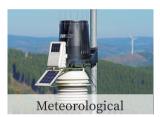
HT600 has a small volume and is very suitable for temperature and humidity measurement environments with extreme installation space requirements such as pipelines and gaps. It is often used as an accessory and embedded in small lightweight equipment with high automation and integration to achieve monitoring of environmental temperature and humidity. HT600 is widely used in fields such as aerospace, industrial control, medical equipment, lightweight electrical equipment, meteorological monitoring, and exhaust 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

HG630 Temperature and Humidity Transmitter



Product features:

- \blacktriangleright 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

HENGKO 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 customerts' needs.

Specifications

- Temperature range: -20 ... +60 °C
- Humidity range: 0 ... 100% RH
- Temperature accuracy: ± 0.2 °C (@ 25 °C)
- Humidity accuracy: ± 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

HG631 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
- $\blacktriangleright\:$ Power polarity protection with anti reverse connection function

The HENGKO 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
- \bullet Temperature accuracy: \pm 0.2 °C (@ 25 °C)
- Humidity accuracy: ± 2% RH (@ 25 °C, 10 ... 90% RH)
- Temperature-Long term stability: ≤ 0.1 °C/year
- Humidity-Long term stability: ≤ 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

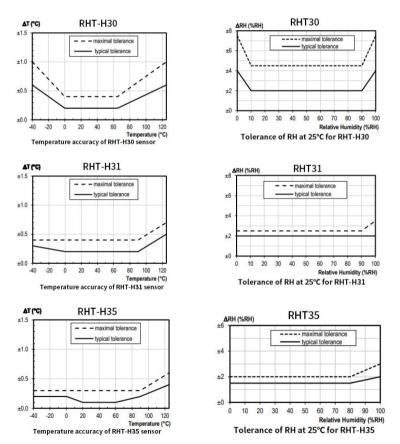


Detachable and Replaceable

Temperature and Humidity Probe Data Sheet

Model	Humidity Accuracy(%RH)	Temperature (°C)	Voltage Supply(V)	Interface	Relative Humidity Range(RH)	Temperature Range
RHT-H30	±2.0 @10-90%RH	±0.2 @0-65°C	3.3	I ² C	0-100%	-40~125°C
RHT-H31	±2.0 @0-100%RH	±0.2 @0-90°C	3.3	I ² C	0-100%	-40~125°C
RHT-H35	±1.5 @0-80%RH	±0.1 @20-60°C	3.3	I ² C	0-100%	-40~125°C

HENGKO provides RHT-H series probes for you to choose HENGKO'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

Temperature and Humidity Meter

Advantages

1. Long term stability:

Can provide long-term accuracy in environments ranging from -30 ... +80 $^{\circ}\text{C}$ (Kind reminder: For usage environments above 80 $^{\circ}\text{C}$, please contact the sales team for confirmation)

2.Excellent features:

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

3. Convenient and practical:

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

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

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

Connect the computer for data analysis

HENGKO HG970/HG981/HG982 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

Temperature and Humidity Meter

Special Functions





Replaceable Probe

The HG970/HG981/HG982 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.

Two Probe Options Available:



Standard Type

Ideal for applications requiring fast response and real-time measurement.



Dust-Proof Type

Ideal for environments where moisture and particulate resistance is critical.

HG970 Replaceable Probe

Hand-held Temperature and Humidity Dew Point Meter



Specifications

- Temperature range: -30 ... +80 °C (probe only)
- Humidity range: 0 ... 100% RH, Recommended humidity range for use as a standard: 1–80%RH
- Dew point range: -30 ... +80 °C
- Wet bulb range: -20 ... +60 °C
- Temperature accuracy: ± 0.1 °C (@ 20 °C)
- \bullet 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

HG970 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.

HG970 is an ideal choice for laboratory, industrial, and engineering temperature and humidity measurement, inspection, and verification. HG970 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 ChemicalIndustry

HG981 High - Temperature

Handheld Temperature and Humidity Meter

+80°C ... +120°C(Highly-recommended)

The HENGKO HG981 high temperature handheld 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: ±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.



HG982 Split Type

Handheld Temperature and Humidity 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: ± 1.5% RH (@ 20 °C, 20-60% RH)

● Wet bulb range: -20 ... +60 °C

Data recording and USB interface

HG982 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

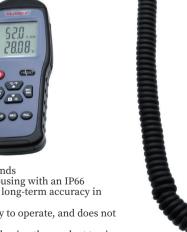
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Applications

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 ±0.2°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.

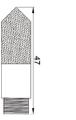
Ø13

Response time:

8S (1m/s wind speed)

Storage temperature range:

-20~70°C



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

Main Parameters

- Product output: I2C
- Power supply: DC 3.3V Power
- consumption: < 0.1W
- Measuring range: -40 ...+125°C,0 ... 100%RH
- Temperature Accuracy of the Sensor Element: ±0.2°C(@25°C)
- Humidity Accuracy of the Sensor Element: ±2%RH (@10%RH~90%RH, @25°C)
- Long-term stability: Humidity:<1%RH/Y Temperature:<0.1°C/Y

$RHT\ \mbox{Temperature}$ and Humidity Sensor Probe Series

(RHT-H30, RHT-H31, RHT-H35)

Model	Pictures
HT-P101	Temperature and humidity probe with both aviation plugs
	22.mperature and mannant, proper with both dynation plugs
HT-P102	
	Temperature and humidity probe with single aviation plug
HT-P103	Temperature and humidity probe with waterproof cable gland(hexagonal)
HT-P104	
	Temperature and humidity probe with waterproof cable gland(Knurling)
HT-P105	
	Temperature and humidity probe with Shrink sleeve

RHT Temperature and Humidity Sensor Probe Series (RHT-H30, RHT-H31, RHT-H35)

Model	Pictures
HT-P126	Replaceable probe Stainless steel replaceable probe
HT-P107	Silver edge knurling probe
HT-P108	Small hexagonal aerial probe
HT-P109	Six core probe

RHT Temperature and humidity sensor long probe series

(RHT-H30, RHT-H31, RHT-H35, RHT-H40, RHT-H41, RHT-H45)

Model	Pictures	Length of stainless steel tube (mm)
HT-E062		
	Screw head (small hex) long probe Φ5 wire	63
HT-E063		92
	Hexagonal male thread long probe	127
HT-E064		132
	Knurled screw thread long probe	
HT-E065	Flanged male thread probe	150 177
НТ-Е066		182
	Flanged long probe	• • •
HT-E067	Flanged screw thread long probe	* Universal for long probe
HT-301		

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 femal	e thread(Made of stainless st	eel)
HK64MCN	M6*1.0 female thread	OD10*ID6*H22.7	
HK64MBNL	M8*0.75 female thread	OD10*ID7*H25	
HK64MDNL	M8*1.25 female thread	OD10*ID7*H25	
HK85U5/16N	5/16-32 UNEF female thread	OD9.5*ID7*H25.5	
HK86MAN	M10*0.5 female thread	OD11.9*ID8.2*H21.0	
HK96MBN	M10*0.75 female thread	OD12*ID9*H30	
HK96MCN	M10*1.0 female thread	OD12*ID9*H30	
HK96MCNL	M10*1.0 female thread	OD12*ID9*H35	
HK59MBN	M12*0.75 female thread	OD13.8*ID11*H30	
HK59MCN	M12*1.0 female thread	OD13.8*ID11*H30	
HK66MBN	M12*0.75 female thread	OD13.8*ID11*H40	- - - -
HK66MCN	M12*1.0 female thread	OD13.8*ID11*H40	
HK66MEN	M12*1.5 female thread	OD13.8*ID11*H38.5	
HK97MCN	M14*1.0 female thread	OD17.3*ID12.4*H32	
HK82MDN	M14*1.25 female thread	OD17.5*ID13.6*H42	
HK83MCN	M16*1.0 female thread	OD18*ID14.2*H45	7
HK83MEN	M16*1.5 female thread	OD18*ID14.2*H45	
HK78MCN	M19*1.0 female thread	OD20*ID16*H50	
HK78MEN	M18*1.5 female thread	OD20*ID16*H50	
HK35G3/4N	G 3/4" female thread	OD28.6*ID23.6*H50	
HK36MCN	M27*1.0 female thread	OD30*ID26*H50	
HK37MCN	M30*1.0 female thread	OD33.5*ID28.5*H50	
HK38G1/1N	G 1" female thread	OD36.7*ID30*H55	
HK99MCN	M30*1.0 female thread	OD35.5*ID30.5*H40	

Sensor Probe Housing

Model	Thread	Specification(mm)	Product pictures	
Flat head with male thread(Made of stainless steel)				
HK47G1/8U	G 1/8" male thread	OD12*ID7.4*H31		
HK47MCU	M10*1.0 male thread	OD12*ID8.4*H28		
HK104MCU	M20*1 .0 male thread	OD22.2*ID14.8*H44		
HK88MCU	M20*1 .0 male thread	OD22*ID17.6*H54		
HK98G3/8U	G 3/8" male thread	OD20*ID15.6*H63		
HK35G3/4U	G 3/4" male thread	OD28.6*ID22.6*H40		
HK45MEU	M4*1.5 male thread	OD17*ID10*H69		
	Cone head with fema	ale thread(Made of stainless s	teel)	
HK20MCN	M10*1.0 female thread	OD12*ID8.4*H37		
HK20MCNL	M10*1.0 female thread	OD12*ID8.4*H42		
HK94MBN	M12*0.75 female thread	OD14.6*ID11*H41		
HK94MBNL	M12*0.75 female thread	OD14.6*ID11*H47.5		
HK94MCN	M12*1.0 female thread	OD14.6*ID11*H41		
	Flat head with male	e thread(Made of stainless ste	el)	
HK94MCU	M12*1.0 male thread	OD14.6*ID10*H40		
HK20MCU	M10.5*1.0 male thread	OD12*ID8.4*H34.3		
HK20G1/8U	G 1/8" male thread	OD12*ID7.4*H37		
HK103MBU	M6*0.75 male thread	OD12*ID4*H21		
HK103MCU	M6*1.0 male thread	OD12*ID4*H21		
Flat head with female thread(Made of alloy)				
HSY4MCN	M10.5*1.0 female thread	OD14*ID10.5*H40		
HSY3MCN	M10*1.0 female thread	OD12*ID10*H36		
HSY2MBN	M12*0.75 female thread	OD14*ID11*H40		
HSY1MBN	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



Optional Accessories

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





Leading Supplier of Temperature, Humidity and Dew Point Monitoring Solutions

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