HENGKO®

Sense a Better World !

HG808 - G

Corrosion-Resistant

Dew Point Transmitter

Product List

HENGKO Technology Co., LTD

Catalog

1 Product Introduction

1.1 Product Overview

HG808 - G Series Corrosion-Resistant Online Dew Point Meter is specially designed for complex industrial corrosive environments, with excellent environmental adaptability and precise monitoring capabilities as its core advantages. It achieves reliable control of dew point and temperature under harsh working conditions. Featuring an integrated corrosion-resistant structure and wide-range high-precision sensing technology, it can operate stably for long periods in environments with strong acids, alkalis, organic solvents, and high salt spray. It also supports comprehensive monitoring needs from ultra-low dew points to standard humidity levels, providing critical data support for industrial process optimization and safe production.

- In the chemical industry, the HG808 - G Series, with its corrosion-resistant properties and ultra-wide dew point detection range, can accurately monitor trace moisture in reactor gases, solvent recovery pipelines, or storage environments for corrosive raw materials. This prevents moisture residues from causing side reactions or equipment corrosion risks, ensuring chemical reaction efficiency and safety.
- In pharmaceutical applications, the HG808 - G Series' high-precision measurement can be seamlessly integrated into processes such as API drying, aseptic packaging, and low-temperature storage. Real-time dew point control ensures the stability of active pharmaceutical ingredients. Meanwhile, its corrosion-resistant design effectively resists disinfectants and chemical reagents, extending the device’s lifespan in cleanroom environments.
- In food processing scenarios, the HG808 - G Series demonstrates strong adaptability in freeze-drying equipment, cold-chain drying rooms, and seasoning production lines. It dynamically tracks environmental humidity changes to prevent caking and spoilage issues. Its sealed protective structure easily withstands common corrosive agents in food processing, such as water vapor and salt spray, ensuring continuous and reliable monitoring data.
- In the new energy sector, the -60°C ultra-low dew point detection capability

of the HG808-G becomes a powerful quality control tool in key processes like lithium battery electrode coating and electrolyte filling. By capturing trace moisture fluctuations in extremely dry environments in real time, it helps prevent battery performance degradation due to moisture penetration. Its corrosion-resistant features also resist the erosion of electrolyte vapors and acidic gases produced during manufacturing, ensuring stable long-term operation in sensitive areas.

- In environmental monitoring, the HG808 - G Series performs excellently at outlets of strong corrosive gas emissions, such as flue gas desulfurization towers and industrial exhaust treatment units. It provides accurate dew point parameters for pollution control processes, supporting compliance with emission standards and environmental regulations.

In addition, the modular design of the HG808 - G Series supports seamless integration with industrial automation systems. It can be embedded in drying equipment, gas purification units, or explosion-proof control systems to achieve dew point-temperature interlocked control, significantly improving process efficiency and production continuity while reducing maintenance costs.

If the HG808 - G series products fail to meet your measurements, please feel free to request other series of temperature and humidity measurement products from our customer service. Thank you again for your review!

1.2 Function Features

- Split type probes with strong anti pollution and oil resistance capabilities.
- Simultaneously supporting RS485 output and two analog outputs.
- Analog output with 15 high-resolution bits, digital output with optional resolution of 0.1 or 0.01.
- Supports single register and multi register reading.
- Equipped with anti condensation function, it can keep the sensor synchronized in high humidity environments
- Digital output can simultaneously read dew point, humidity, temperature, and PPM values
- Adopting the standard Modbus RTU protocol, it can easily achieve interconnection with PLC, DCS, and various configuration software.
- 10V~28V ultra wide voltage input, over current protection, power polarity protection, industrial grade ESD safety protection, and power supply anti reverse connection function.

2 Technical Parameter

2.1 Specifications

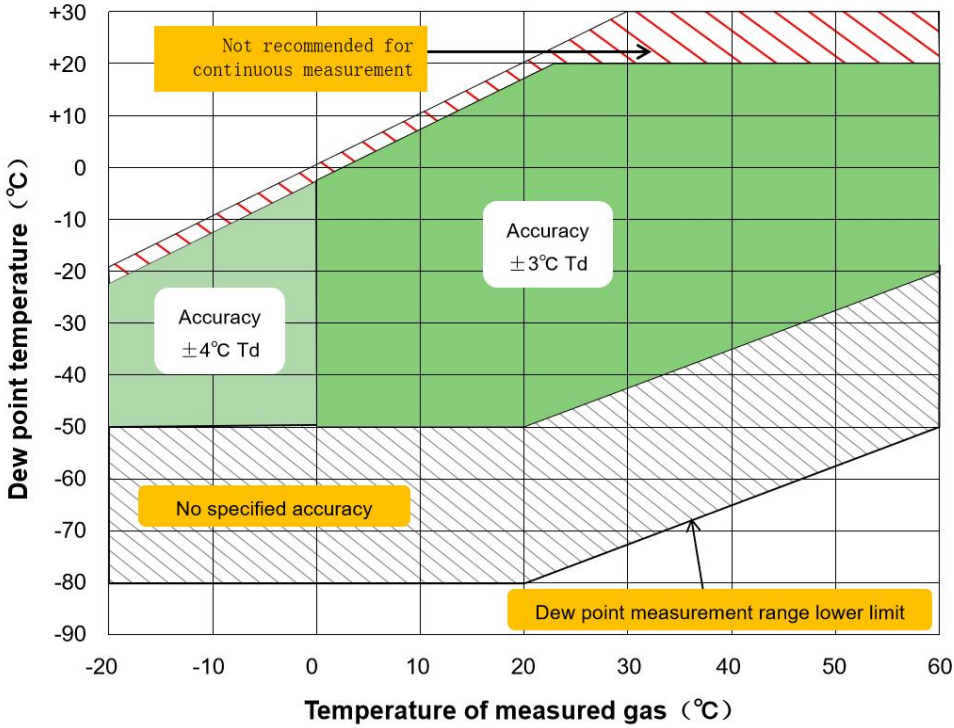
Range and Accuracy	
Dew point Range	-60 ~ +20℃ （Adjustable within this range）
Temperature Range	-20 ~+60℃
Dew point Accuracy	±3℃ (± 5.4°F) Td (Refer to the dew point accuracy table for details)
Temperature Accuracy	±0.2℃（@23℃） (Refer to the temperature accuracy table for details)
Input and Output	
Power supply	DC 10V ~ 28V
Power consumption	<0.5W
Analog Outputs	**Dew Point + Temperature**
	4~20mA /0-5V /0-10V （One out of three）
RS485 Digital Output	Temperature, humidity, dew point, PPM (read simultaneously)
	resolution ratio：0.01°C / 0.1°C (optional) 0.01%RH /0.1%RH (optional)
Baud rate	1200, 2400, 4800, 9600, 19200, 115200 can be set, The default is 9600 bps
Acquisition frequency	The fastest response is 1 second, other settings can be set according to PLC
Byte format	8 data bits, 1 stop bit, no check
Pressurization	16 bar
Working temperature (Transmitter body)	- 20℃ ~ +60℃, 0%RH ~ 95%RH (Non condensation)
(Humidity and PPM value for reference only)	

2.2. Measurement values

Dew Point

Measurement range	-60 ~ 20°C
Accuracy	±3°C (± 5.4 °F) Td

Accuracy within the dew point range

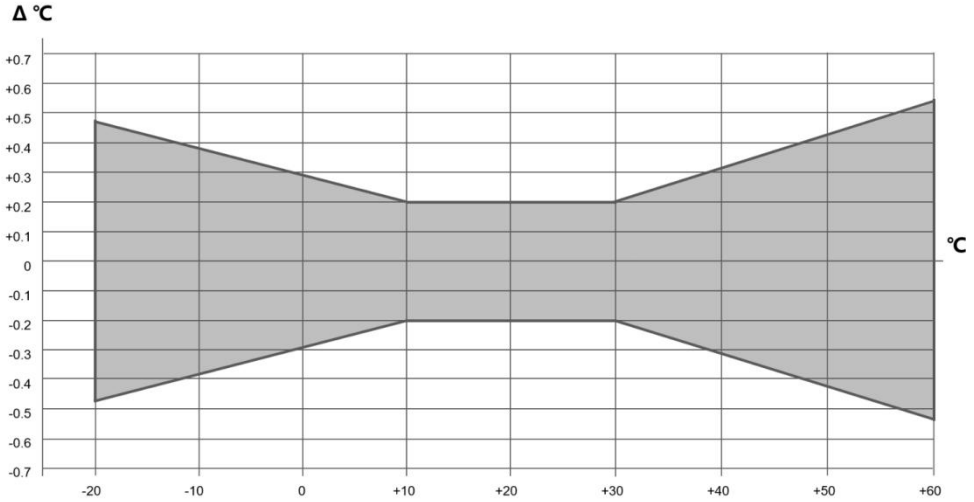


*Dew point measurement, it is recommended to measure the ambient temperature of -20 ℃~+60 ℃

Temperature

Measurement range	-20 ~ +60°C
Accuracy	±0.2℃（@23℃）

Accuracy of temperature



3 Product Selection

Corrosion-resistant	HG808-G		
Probe Type	Split 0 (With a protective cover, the total length is 40mm)		Split 8 (With a protective cover, the total length is 103mm)
	0		**8**
Analog signal output(+485)	4~20mA	0-5V	0-10V
	4	**5**	**1**

HG808 - G □ Y □

Analog signal output

Probe type

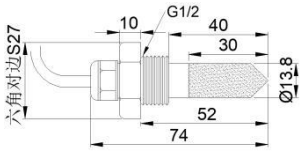
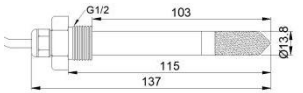
e.g:

HG808-G8Y4 stands for a corrosion-resistant online dew point meter with a split probe (Type 8), featuring 4-20mA analog output and 103mm probe length.

4 Probe

4.1 Probe Type

The general probe structure of the HG808 transmitter is as follows in the table (can be customized as per customer requirements).

Type	Probe Description	Picture	Probe size
Split type probe 0	Compact and compact in structure, with optional hexagonal thread size, su itable for threaded fasteni ng work environments or installation through box walls, easy to install.		
Split type probe 8	Commonly used for mea suring temperature and h umidity in high-temperatu re pipeline facilities such as large-sized pipelines and smoke pipes, or in t he interior of wider box spaces, under pressurized or non-pressurized condi tions.		
Probe installation： The default thread is G1/2, and NPT1/2 or M20 thread is optional.			

5 Model List

Model	Signal output	Temp. range	Dew Point Range	Picture
HG808-G0Y4	4~20mA +RS485	-20 ~ +60°C	-60 ~ +20°C	
HG808-G0Y5	0-5V +RS485			
HG808-G0Y1	0-10V +RS485			
HG808-G8Y4	4~20mA +RS485			
HG808-G8Y5	0-5V +RS485			
HG808-G8Y1	0-10V +RS485			

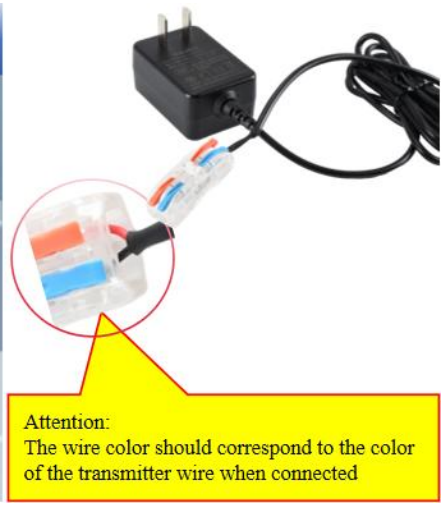
Signal output description				
Model	**Signal output**	**Output Value**		
HG808-G0Y4 HG808-G8Y4	4~20mA	Temperature and Dew point		
	RS485	Dew point	Temperature	Humidity (for reference only)
HG808-G0Y5 HG808-G8Y5	0-5V	Temperature and Dew point		
	RS485	Dew point	Temperature	Humidity (for reference only)
HG808-G0Y1 HG808-G8Y1	0-10V	Temperature and Dew point		
	RS485	Dew point	Temperature	Humidity (for reference only)

6 Accessory Selection

a. 12V1A power adapter

—— Easy for customers to quickly connect power when there is no PLC or other weak power supply.

Please contact the salesperson for the selection of pin specifications.



b. 485 to USB module

—— Compatible with Windows series, Mac OS, Linux and other systems, easy and fast to read.

c.Gas Sampling Kits

——By using gas sampling kits, you can indirectly measurethe temperature,humidity and dew point data in theenvironment. The gas sampling kit can be used with differ.ent devices to solve the problem of measuring data underspecial working conditions, such as ultra-high temperature,ultra-high pressure, and harsh environments. The measure.ment inlet can be screwed directly into the probe or connect-ed to a threaded adapter for sealing.

（1）

（2）

（3）

Contact Us

HENGKO Technology Co., Ltd.

Address:

Building 65, No. 43, Fukang Road, Pinghu Street, Longgang District, Shenzhen, China

Contact number: 0086-0755-88823250

E-mail: ka@hengko.com

Website: www.hengkometer.com