

SUCH

Industrial Dew Point Sensor User's Manual



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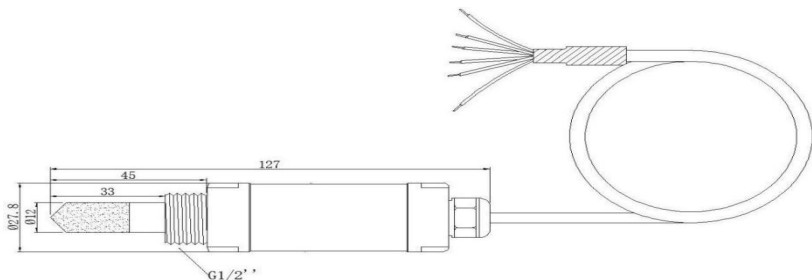
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1.Product introduction

Industrial dew point sensor is an online dew point sensor specifically designed for industrial corrosive environments, delivering precise dew point measurements. It is widely used in battery anti-corrosion workshops, chemical production, pharmaceutical and food processing, electronics manufacturing, medical gases, and high-voltage gas insulation equipment. The HG602-D effectively addresses issues faced by traditional dew point transmitters in corrosive environments, such as inaccurate data, measurement failure, and short lifespan.

Built with corrosion-resistant materials and featuring a special anti-corrosion surface treatment, the dew point sensor withstands acidic, alkaline, and salt mist conditions, ensuring stable operation in harsh environments. Its advanced sensor technology provides fast, stable, and repeatable dew point monitoring, meeting the strict humidity control requirements of industrial applications.

Additionally, the dew point sensor series is compact and highly integrated, making it ideal for installation in space-constrained pipelines. It can also be seamlessly integrated with PLCs, DCS, and various configuration software systems, offering industrial users a flexible and convenient installation and operation experience.



Product size

2.Product features

(1) Stainless steel housing, compact and highly integrated.

(2) Support RS485 output and one analog output at the same time:

A. 4-20mA current mode (SUCH-HG602-D4) ,

Supports RS485 output and one 4-20mA analog output at the same time

B. 0-5V voltage mode (SUCH-HG602-D5) ,

C. Supports RS485 output and one 0-5V analog output at the same time

D. 0-10V voltage mode (SUCH-HG602-D1) ,

E. Supports RS485 output and one 0 - 10V analog output at the same time

(3) Analog output 15 bit high resolution, digital output can be selected 0.1 or 0.01 resolution.

(4) Support single register and multi-register reading.

(5) With anti condensation function, which can keep the sensor synchronized in high humidity environments.

(6) The digital output can simultaneously read the dew point, humidity and temperature.

(7) Using the standard Modbus-RTU protocol, it can easily realize the interconnection with PLC, DCS and various configuration software.

(8) Equipped with a heating anti-condensation function.

(9) 10V~28V ultra-wide voltage input, power polarity protection, anti-reverse connection function.

3. Technical specifications

Category	Technical specifications and features
Power supply	DC 10V ~ 28V (12V power supply recommended)
Power dissipation	< 0.1W
Dew point range	-60 ~ +60°C (Within the range, you can set it as required)
Dew point measurement accuracy (in air or nitrogen)	See Figure 1
Operating ambient	Temperature:-40 ~ +60°C
	Humidity:0 ~ 100%RH (Recommend <90%RH)
Output	Analog output 4-20mA/0-5V/0-10V
	Digital output RS485 (simultaneous reading of temperature, humidity, and dew point)
Digital output resolution	0.01°C / 0.1°C selectable 0.01%RH / 0.1%RH selectable
Communication baud rate	1200、2400、4800、9600、19200、115200 settable, default 9600 bps
Acquisition frequency	The fastest 1s response, other can be set by PLC
Byte format	8 data bits, 1 stop bit, no check
Pressure	16 bar

Measurement Range

Dew point

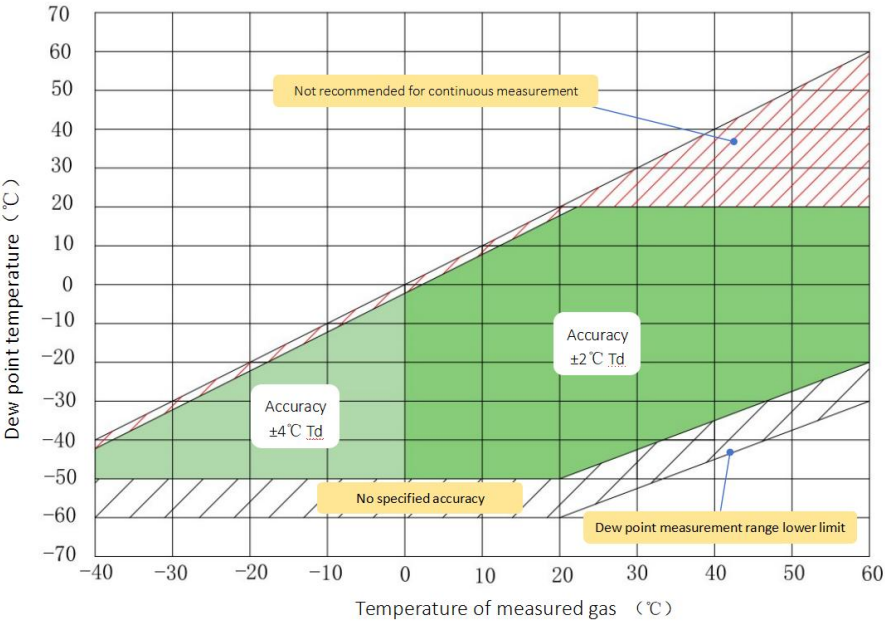
Measurement range

-60 ~ +60°C

Accuracy

±2°C (± 3.6°F) Td

Accuracy within the dew point range



4.Product List

Model	Signal Output	Output Value	Dew point range	Operating Temperature	Picture
SUCH-HG602-D4	4-20 mA +RS 485	Dew point	-60~+60°C	-40~60°C	
SUCH-HG602-D5	0-5V +RS 485	Dew point	-60~+60°C	-40~60°C	
SUCH-HG602-D1	0-10V +RS 485	Dew point	-60~+60°C	-40~60°C	