

# GTHT100 Temperature And Humidity Transmitter

Product Manual



## DESCRIPTION

GTHT100 is an intelligent temperature and humidity transmitter that can set the range through the DIP switch. It has EMC protection functions such as lightning protection, anti-burst and electromagnetic isolation, etc., with fast response, high precision and good long-term stability. There are three installation methods: wall, air duct and split. It can output standard analog signals or RS485 serial communication. It is widely used in industrial process detection and control, urban pipe gallery monitoring, HVAC heating ventilation and air conditioning systems, and building control.

## FEATURES

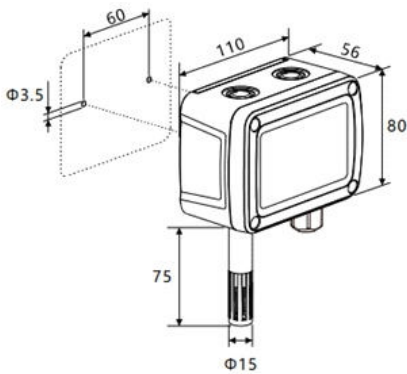
- High accuracy:  $\pm 0.3^{\circ}\text{C}/\pm 2\%\text{RH}$
- Good stability: 0.05%/year or  $\leq 0.1^{\circ}\text{C}/\text{year}$
- Lightning protection:  $\pm 4000\text{V}(\leq 5 \text{ times})$
- Anti-burst: Level 4
- Anti-radio frequency interference:  $> 10\text{V}/\text{m}(80\text{MHz}\sim 1000\text{MHz})$
- Low temperature drift:  $\leq 0.008\%\text{FS}/1^{\circ}\text{C}$
- Protection class: IP67
- Power isolation: 1500VAC
- Wide voltage power supply: 17~30VDC
- DIP switch: set the measuring range



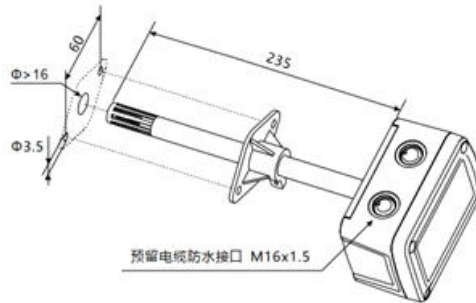
## PARAMETERS

Model	GTHT100
Temperature range	-40~+125°C
Temperature accuracy	$\pm 0.3^{\circ}\text{C}$
Humidity range	0~100%RH
Humidity Accuracy	$\pm 2\%\text{RH}$
Output communication	4~20mA, 0~10V, 0~5V, RS485
Maximum load	500Ω
Voltage	17~30VDC
Response time	1S
Temperature drift	0.008%FS/1°C
Long-term stability	$\leq 0.1^{\circ}\text{C}/\text{year}$ or 0.05%/year
Lightning protection	$\pm 4000\text{V} (\leq 5 \text{ times})$
Anti-burst	Level 4
Isolation voltage	1500VAC
Anti-radio frequency interference	$> 10\text{V}/\text{m}(80\text{MHz}\sim 1000\text{MHz})$
Ambient temperature	-40~+85°C, 0~95%RH(no condensation)
Protection class	IP67
Configuration Mode	DIP switch

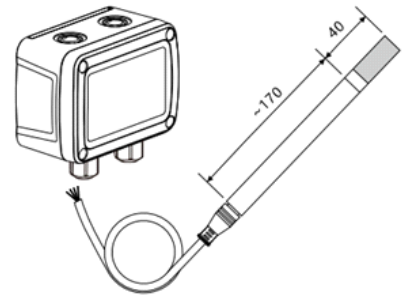
**PRODUCT SIZE AND INSTALLATION**



Wall mount



Duct installation



Split installation  
(air duct installation)

**ELECTRICAL CONNECTIONS**

voltage output	Power supply	Humidity	Temperature
	<p>24V DC ±20%</p>	<p>0...10V</p>	<p>0...10V</p>
voltage output	Power supply	Humidity	Temperature
	<p>24V DC ±20%</p>	<p>4...20mA</p>	<p>4...20mA</p>

## TEMPERATURE RANGE SETTING ///

Dial settings	Measuring range
	0...50°C
	0...100°C
	-40...60°C
	-10...50°C
	-20...80°C
	-40...80°C
	-40...125°C
	The Configuration Tool

## Note:

When the preset range cannot meet the requirements, all the DIP switches need to be turned ON, and the programming port will be activated at this time, which can be set arbitrarily through the configuration tool.

## TYPE SELECTION

MODEL	CODE	NOTE
GTHT100		Smart Temperature and Humidity Transmitter
Display	A	No display (use in -40~+85°C environment)
	C	LCD display (use in -20~+70°C environment)
Temperature range	A	0~50°C
	B	0~100°C
	C	-40~+60°C
	D	-10~+50°C
	E	-20~+80°C
	F	-40~+80°C
	G	-40~+125°C
	X	Special temperature range
Output signal	A	4~20mA(3-wires)
	F	0~5V(3-wires)
	T	0~10V(3-wires)
	R	RS485(Modbus RTU)
Installation method	W	Wall mount
	F	Duct installation
	S	Split installation
Attachment	A	Standard
	B	With test report

**Note:**

- 1: The temperature range must be confirmed when placing an order so that it can be set at the factory.
- 2: Split installation needs to be ordered separately.
- 3: The humidity range is 0~100% by factory default.