

**Main Specifications**

▼ **Body dimension**  
95 x 16mm

▼ **Humidity measurement range**  
0...100% RH

▼ **Temp. measurement range**  
-40...85°C

▼ **Probe**  
Material - Nickel-plated brass  
Pressure resistance - 10bar

▼ **Cable**  
Material: shield PVC  
Length: 2M  
Other cable length available upon request

▼ **Psychometric calculations (option)**  
(Td) Dew point temp.  
(Tf) Frost point temp.  
(Tw) Wet blub temperature  
(E) Water vapor pressure  
(R) Mixing ratio  
(A) Absolute humidity  
(S) Enthalpy

▼ **Operating temperature**  
-40...85°C (-40...185°F)

▼ **Case protection level**  
IP24

▼ **Electromagnetic interference protection**  
Comply with EMC standard  
EN61326-1  
Industrial environment

**Other Specifications**

▼ **Signal output**  
Analog output (standard) ▼  
0-1V (2-wire)  
Digital output (option) ▼  
RS485 Modbus

▼ **Humidity accuracy (@25°C) (including non-linearity, hysteresis and repeatability)**  
Level A ▼  
1.5% RH (20...80%RH)  
±2%RH (0...20/80...100%RH)  
Level B ▼  
2%RH (20...80%RH)  
±3%RH (0...20/80...100%RH)  
Level C ▼  
±3% RH (20...80%RH)

▼ **Temperature accuracy (including non-linearity, hysteresis and repeatability)**  
±0.7°C (@-40...5°C)  
±0.3°C (@5...60°C)  
±0.9°C (@60...85°C)

▼ **Dew point**  
±5°C (@25°C)

▼ **Stability**  
Humidity: 0.5%RH/year  
Temperature: 0.04°C/year

▼ **Response time (@63% signal)**  
Humidity: 5 secs (33-75%RH)  
Temp: 1 min (15 to 45°C)

▼ **Power supply**  
5VDC±5%

▼ **Power consumption (@25°C, V+24VDC)**  
35mA

▼ **Load resistance**  
Current output: < 500Ω  
Voltage output (0~1V): > 2KΩ

**Probe Humidity and Temperature Transmitter**  
**Model: THT-S16**

**Introduction**

THT-S16 series transmitter adopts metal probe to measure ambient temperature (-40...85°C) and humidity (0...100%RH), which is suitable for industrial application such as environment, cooling, and ventilation control with affordable price.



Due to the variety of customization, the picture is only for reference, please confirm the actual item with our sales. (If there is any change on specification, please take the latest version as standard.)

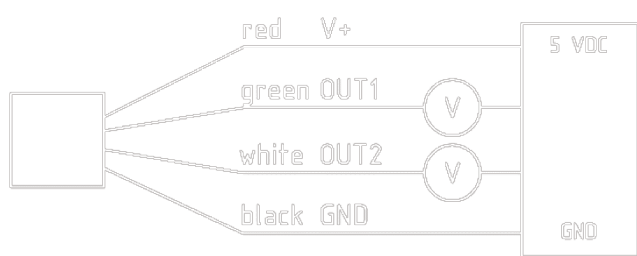
**Features**

- Economic and affordable price with accurate and stable performance
- Humidity measurement range 0...100%RH  
Temp measurement range -40...85°C
- Mechanical stress resistance metal probe, reducing electromagnetic interference
- The 2-wire analog output with Psychometric calculations (option)
- RS485 Modbus support float point and integer format with metric/imperial unit
- Reverse / overcurrent / short circuit protection

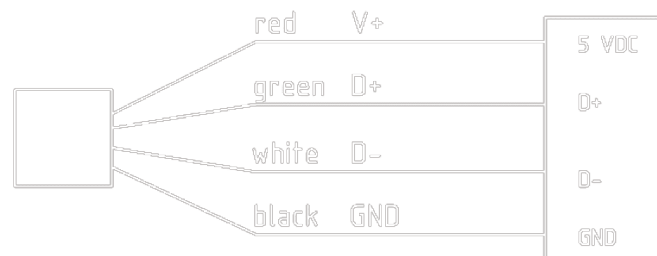
**Physical quantity output (display) range table**

Physical quantity	Code	Metric	Imperial
Temperature	T	-40...120°C	-40...248°F
Relative Humidity	RH	0...100%	0...100%
Dew Point	Td	-100...100°C	-148...212°F
Frost Point	Tf	-100...0°C	-148...32°F
Wet blub temperature	Tw	-40...100°C	-40...212°F
Water vapor pressure	E	0...1013mbar	0...14.7psi
Mixing ratio	R	0...30000 g/kg	0...210000 gr/lb
Absolute humidity	A	0...550 g/m³	0...240 gr/ft³
Enthalpy	S	40...40000 kJ/kg	-10...20000 BTU/lb

## Wiring Diagram



Wiring (0-1V)



Wiring (RS485)

## How to order

THT-S16		Probe Humidity and Temperature Transmitter			
Code	Accuracy level				
A	Level A				
B	Level B				
C	Level C				
Code	Output signal				
A	0~1V (2-wire, Analog)				
B	RS485 (Digital)				
Code	Temperature scale				
1	0...50°C				
2	0...100°C				
S	Other (please specify)				
Code	Psychometric calculations				
M	Yes				
X	No				
Code	Other requests				
/A	Third party notarized documents				
/B	Inspection report (issued by Re-Atlantis)				
/C	Tag				
/D	Sintered stainless steel 70 μm				
/E	Sintered stainless steel 30 μm				
/F	Aluminum flange				
/G	Stainless steel fitting adaptor 12mm				
/H	Configure adapter				
/I	Cable length 1M				
/J	Cable length 5M				
THT-S16	B	A	2	X	Order example: THT-S16-B-A-2-X+/I