# Industrial High Accuracy Temp. & Humidity Transmitter
Model: AT-THM80 Series

Introduction

The AT-THM80 series industrial temperature and humidity transmitters can be installed in three different ways - wall-mounted, duct-mounted, and remote type, according to the environmental requirements. They can measure temperature and humidity ranging from -40℃ to 200℃ and 0% to 100%RH. They are suitable for applications in semiconductor, clean rooms, industrial process monitoring, weather stations, and various environmental control areas.
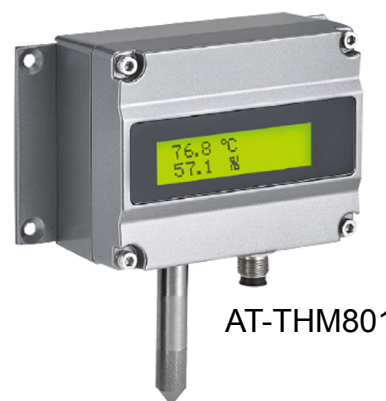
AT-THM801

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

- Temperature compensation and computer linear calibration humidity function.
- Aluminum alloy sturdy casing, suitable for various harsh environments.
- High precision temperature and humidity measurement, good long-term stability.
- Switching between multiple units of physical quantities.
- Can plan various types of physical quantities, measurement ranges, analog output workstation numbers, etc.
- Measurement range can reach up to 200℃.
- Specialized planning software that can record data and analyze graphs.

Main Specifications	Other Specifications
▼Installation	▼Housing
Wall type (AT-THM801)	Aluminum alloy
Duct type (AT-THM802)	▼ Filter
Remote type (AT-THM803)	S.S. metal grid filter with mesh
▼Electrical connector	Sintered filter
M12-4PIN connector	▼Cable
M12-8PIN connector	Material: Teflon
M16 metal cable clamp	Length: 2m, 5m
▼Humidity range	(Up to 10m in length)
0...100% RH	▼Measurement Units
(Non-condensing)	Temperature (T)
▼Temperature range	Humidity (H)
Wall type▼	Dew point (D)
-40℃~80℃	Frost point (F)
Duct type▼	Wet-bulb Temp.(W)
-40℃ ~ 120℃	Vapor pressure (E)
Remote type▼	Mixture ratio (R)
-40℃~200℃	Absolute humidity (A)
▼Screen display	Specific enthalpy (S)
LCD with backlight	(Standard: T&H)
Dual display	▼Output
Height: 5.5mm	0-20mA, 4-20mA
▼Probe	0~1V, 0~5V, 0~10V,
Material: SS304	▼Humidity accuracy
Pressure resistant : 10 bar	0...90%RH▼
▼Applicable media	Nonlinear error: ±1.2%RH
Air	Hysteresis error: ±0.8%RH
▼Work temperature	Repeatability error: ±0.4%RH
-20℃~80℃ (body)	±2%RH (0...100%RH)
-20℃~60℃ (with display)	▼Temperature accuracy
▼Storage temperature	±0.15℃
-25℃~60℃	▼Response time (@25℃)
▼Protection Level	< 20 sec (S.S. metal grid filter with mesh)
Housing: IP65	< 30 sec (Sintered filter)
Probe: IP20	▼Power supply
	DC8~35V
	AC12~30V
	▼ Power consumption
	DC24V: 60mA / DC12V: 120mA
	AC24V: 140mA / AC12V: 230mA
	▼Load resistance
	Current output: Max. 500Ω
	Volatge output: Min. 10KΩ
	▼Weight
	Wall type : 455g
	Duct type : 521g
	Remote type : 635g

Measuring Range List

| Physical quantity	Wall type	Duct type	Remote type
Temperature(T)	-40℃~80℃	-40℃~120℃	-40℃~200℃
Humidity(H)	0~100%RH		
Dew point(D)	-40 dp℃~60 dp℃		
Frost point(F)	-40~0 fp℃		
Wet-bulb Temp.(W)	0~100℃		
Vapor pressure(E)	0~1100 mbar		
Mixture ratio(R)	0~999 g/kg		
Absolute humidity(A)	0~700 g/m³		
Specific enthalpy(S)	0~2800 kj/kg		

Electric Connector (Unit: mm)
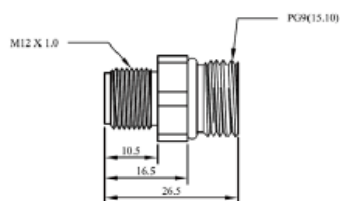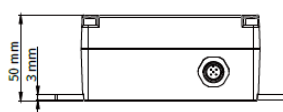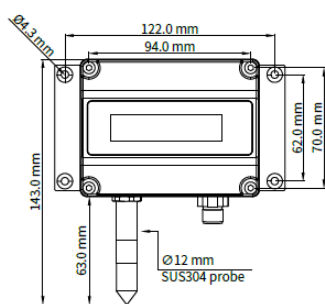

【M type (M12-4PIN connector】
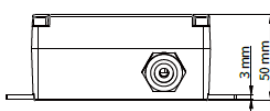RS-485 or analog
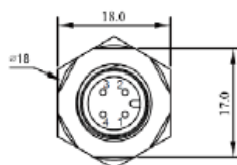
【M type (M12-8PIN connector)】
RS-485+analog
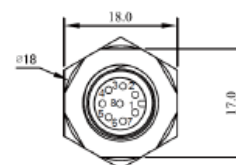
【N type (M16 cable gland)】
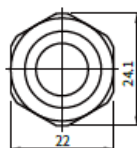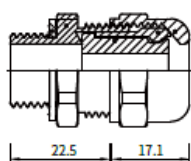
Dimension
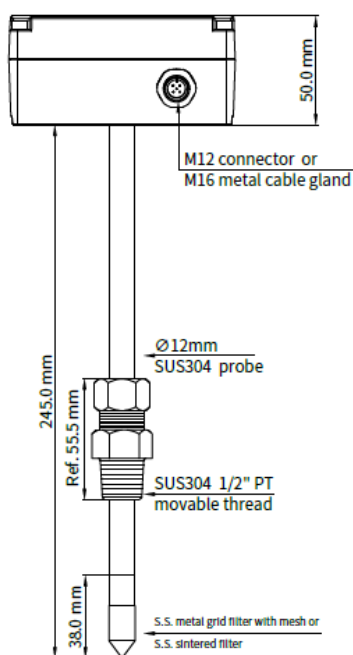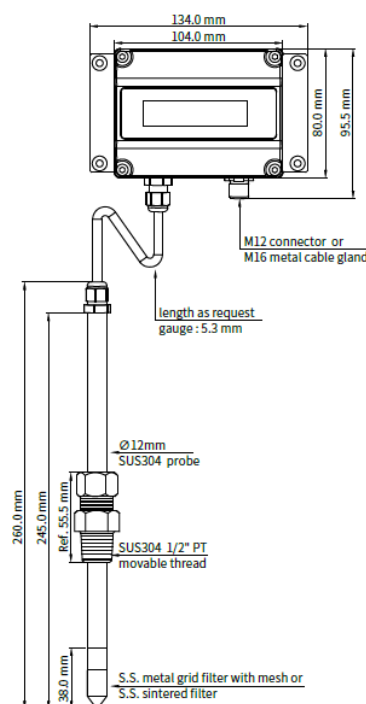

AT-THM801

AT-THM802

AT-THM803

How to order

AT-THM80 Series Industrial High Accuracy Temp. & Humidity Transmitter									
Std.	Spec.	Code	Item	Code	Item	Code	Item	Code	Item
3	Installation	1	Wall type	2	Duct type	3	Remote type	–	–
T&H	Output of physical units (Please choose two)	T	Temperature	H	Humidity	D	Dew point	F	Frost point
		W	Wet-bulb Temp.	E	Vapor pressure	R	Mixture ratio	A	Absolute humidity
		S	Specific enthalpy	–	–	–	–	–	–
Custom	Temperature range	-40°C~200°C							
1&9	Signal output (Please choose two)	1	4-20mA	2	0-20mA	6	0-10V	7	0-5V
		8	0-1V	9	RS-485	–	–	–	–
Y	Display	Y	Yes	X	No	–	–	–	–
M1	Electrical connector	M1	M12-4PIN connector	M2	M12-8PIN connector	N1	M16 metal cable clamp	–	–
S	Filter	M	S.S. metal grid filter with mesh	S	Sintered filter	–	–	–	–
2	Cable length	2	2 Meters	5	5 Meters	O	Others	–	–
/B	Other requests	/A	Third party notarized document						
		/B	Inspection report (issued by Re-Atlantis)						
		/C	Tag						

Order example: AT-THM803 - T&H - (0~150°C) - 1&9 - Y - M1 - S - 2 - /B