



THS302 Duct Mount
-40 to +100°C



THS303 Duct Mount
-40 to +120°C



THS306 Remote Mount
Teflon Cable
-40 to +150°C

Features

- Industrial Grade Sensor with High Accuracy & Long-term Stability
- Built-in Temperature Compensation & Linearization
- Multiple Parameter Measurements : Temperature, Humidity, Dew Point, Frost Point, Wet-bulb Temperature, Vapor Pressure, Mixture Ratio, Absolute Humidity, Specific Enthalpy
- Standard : 2 Analog Outputs or MODBUS RS485
- Optional : 1 Analog Output + MODBUS RS485
- Probe Material : PC or S.S.
- Cable for Remote Type : PVC or TEFLON
- Power Supply : 8 ~ 35 VDC & 12 ~ 35 VAC
- Free Programming Software - Physical Quantities, Output, Data Logger, Charts, Calibration

Applications

- Monitoring for HVAC Process, Air Conditioning, Environmental Ventilation Control
- Building, Factory, Hospital, Clean Room, Lab., Storeroom
- Cooling Tank, Crisper, Environmental Chambers, Weather Station
- Indoor Pool, Greenhouse, Livestock Nursery
- Pharmaceutical, Textile, Agriculture, Food, Manufacturing Industry, Monitoring for Process, Drying Facility

Specifications

General	
Sensing Elements	Capacitive Humidity Sensor & Pt100 Class A Temperature Sensor
Operating Range	Temperature THS302 : -40 to 100°C THS303 : -40 to 120°C THS306 : -40 to 150°C
	Humidity : 0 to 100% RH
Accuracy @ 25°C	Temperature : ± 0.15°C
	Humidity : ± 2 %RH
Temperature Influence	0.05 %RH / °C (of body)
Load Resistance	Current Output : Max. 500 Ω Voltage Output : Min. 10 KΩ
Output Calibration	Software (Zero & Span)
Response Time t90	<20 Sec (Membrane filter) / <30 sec (Sintered filter)
Output	RS485 or 2 Analog Output 4 - 20 mA / 0 - 10 V
Signal Connection	3-wire
Modbus	RS485 (Programmable) and 2 Analog Output
Display Type	LCD Module with back light, double line character
Display Range	Upon request, one decimal place
Height of character	5.56 mm
Electrical, Mechanical & Environmental	
Power Supply	DC Voltage : 8 ~ 35 VDC AC Voltage : 12 ~ 30 VAC
Current Consumption	DC Voltage : 24V - 60mA / 12V - 120mA AC Voltage : 24V - 140mA / 12V - 230mA
Electrical Connection	M12 metal connector with 2m cable or terminal (cable gland)
Medium	Air
Operating Temperature	Housing : -20 to +60°C (THS302 & THS303) / 0 to 60°C (THS306)
Operating Humidity	Housing : 0 to 95%RH (Non-Condensing)
Proof Temperature	PC Probe : Max. 80°C
Cable	PVC Cable : Max. 80°C (Remote Type)
Storage Temperature	-25 to +60°C
Filter	Plastic membrane filter (standard); Option
Certification	
Certification	CE

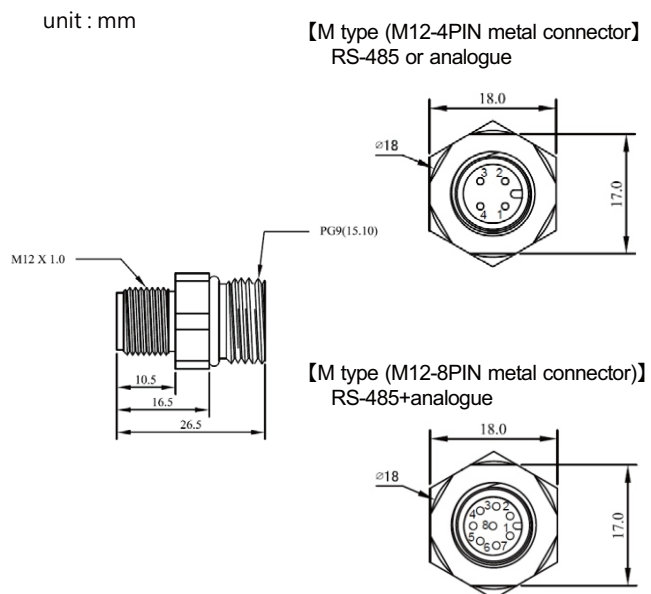
Protection	
IP Rating	Housing : IP65; Probe : IP20
Electric Protection	● Polarity Protection ● Over-Voltage ● Short-Circuit
Installation	
Installation	Wall Type, Outdoor : Fixed board for wall type (Standard) Duct / Remote : Plastic flange (Standard)
Material	
Housing	PC fire-proof class (PC-110) (UL94V-2)
Probe	PC fire-proof class (PC-110)

Physical Quantity Measuring Range List

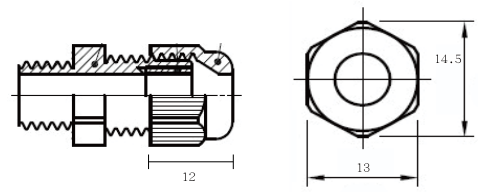
Physical Quantity	THS302 Duct Mount PC Probe	THS303 Duct Mount S.S. Probe	THS306 Remote Mount S.S. Probe + TEFLON Cable
Temperature (T)	-40 ~ +100°C	-40 ~ +120°C	-40 ~ +150°C
Humidity (H)	0 ~ 100%RH		
Dew Point (D)	-40 ~ +60°C		
Frost Point (F)	-40 ~ 0°C		
Wet-bulb Temp. (W)	0 ~ 100°C		
Vapor Pressure (E)	0 ~ 1100mbar		
Mixture Ratio (R)	0 ~ 999g/kg		
Absolute Humidity (V)	0 ~ 700g/m³		
Specific Enthalpy (S)	0 ~ 2800kj/kg		

Note : Beside temp. & dew point, other physical quantities range as default setting

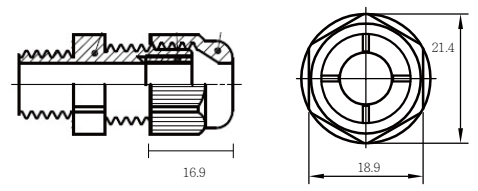
Electric Connector



【N type (M12 cable gland)】RS-485 or analogue

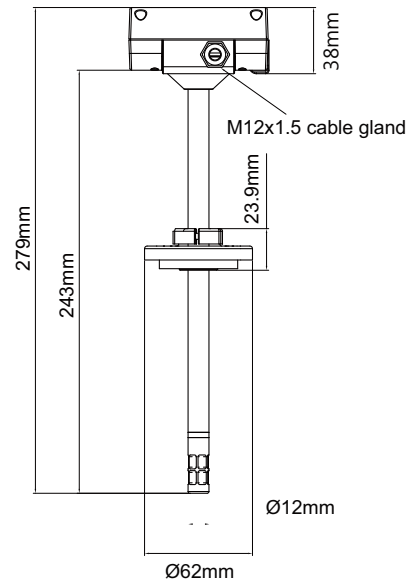
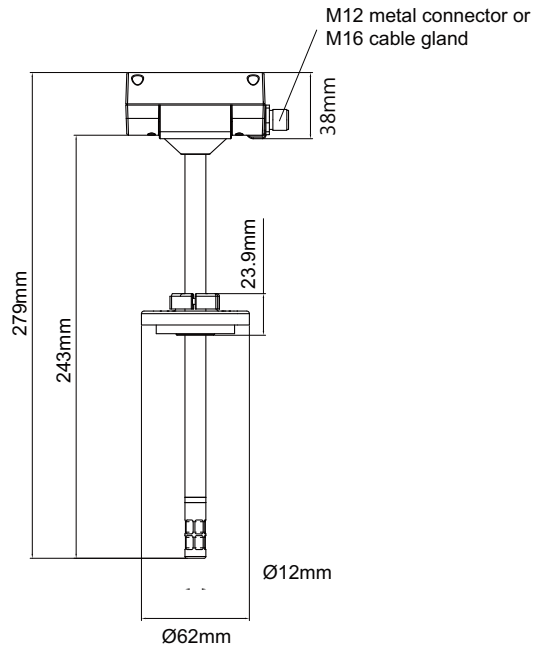


【N type (M16 cable gland)】RS-485+analogue



Dimension

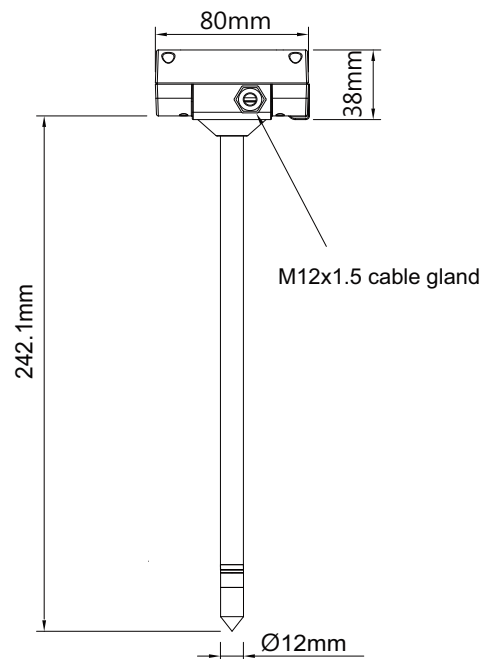
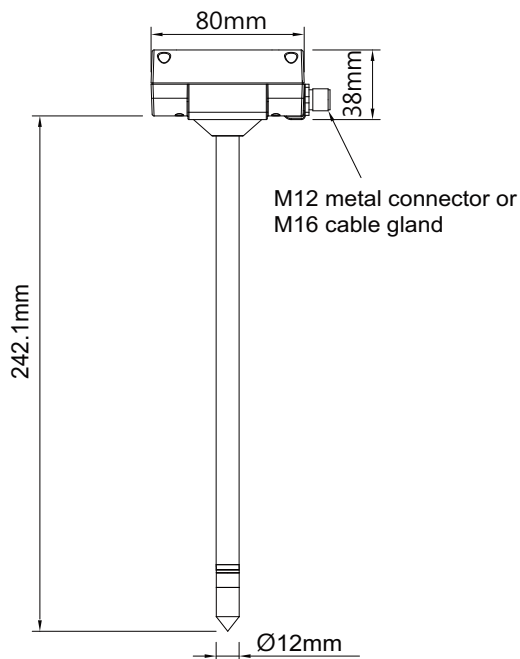
(THS302 (duct) - PC probe standard plastic flange)



M type (4P) : RS-485 or analogue
M type (8P) or N type : RS-485+analogue

N type : RS-485 or analogue

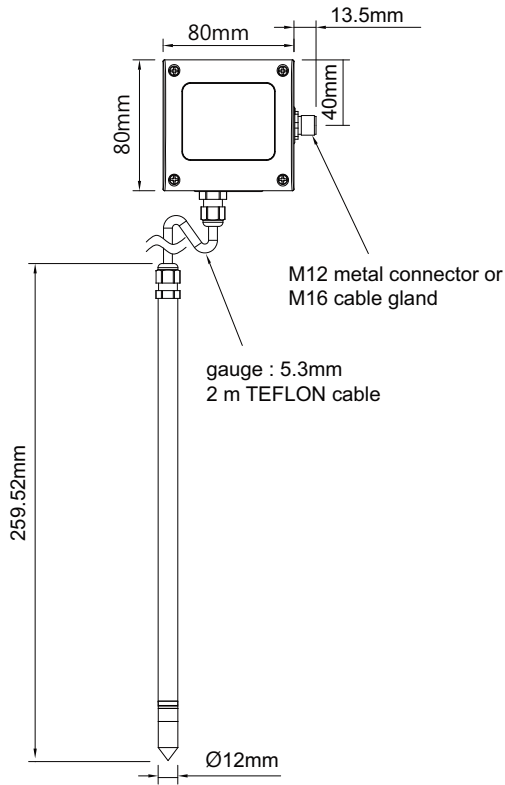
(THS303 duct - S.S. probe)



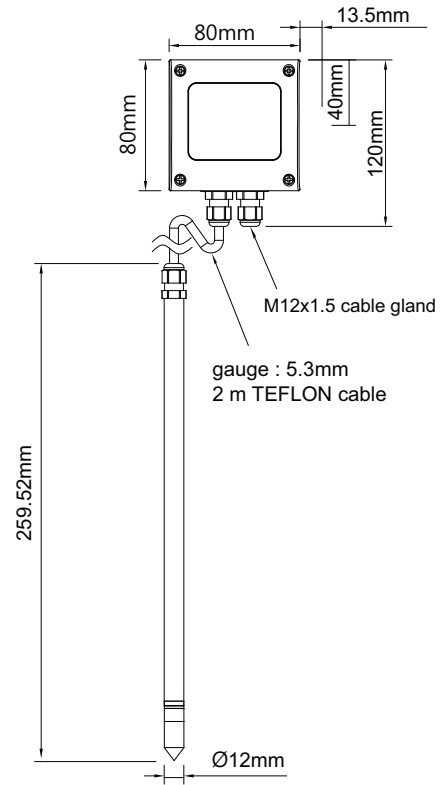
M type (4P) : RS-485 or analogue
M type (8P) or N type : RS-485+ analogue

N type : RS-485 or analogue

(THS306 remote - S.S. probe+ 2 m TEFLON2)

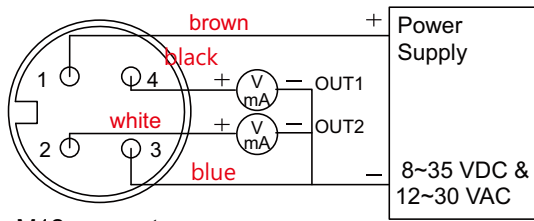


M type (4P) : RS-485 or analogue
 M type (8P) or N type : RS-485+analogue



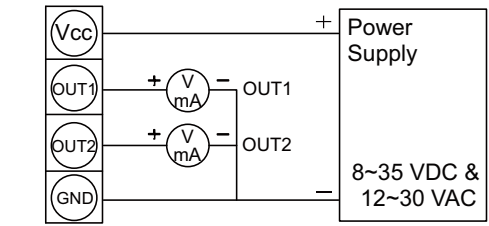
N type : RS-485 or analogue

Connection Diagram



M12 connector

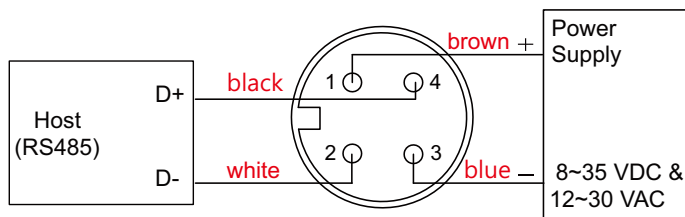
M type (4P)



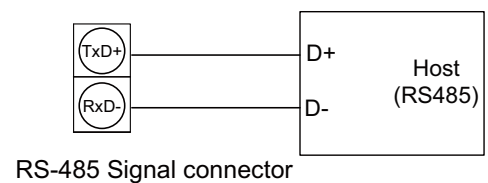
4P terminal

N type

Comport Connections



M type (4P)

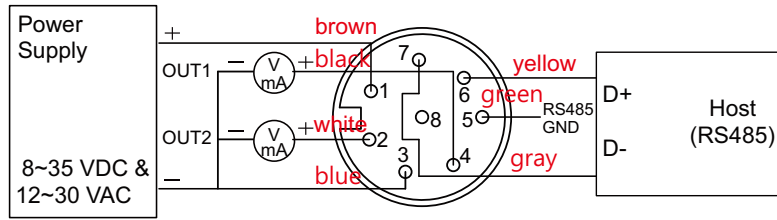


RS-485 Signal connector

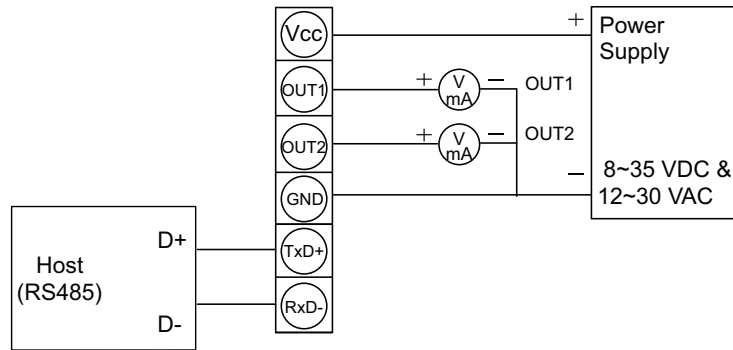
N type

Note : When output of ordering code is RS-485 (without analog), RS-485 diagram of default setting is M type.

Analog + RS485 Connection



M type (8P)



N type (M16)