

TEMPERATURE/ HUMIDITY DETECTOR

WALL AND DUCT MOUNTING

PRODUCT BROCHURE

HDM-THP/TH9 SERIES

APPLICATION

- HVAC
- Clean rooms
- Green houses
- Stocks
- Other places where temperature and humidity measurements are required



FEATURES

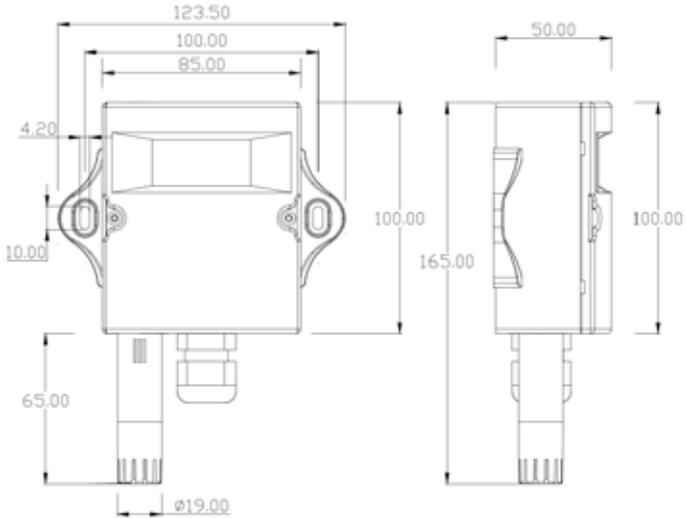
- Accurately measures relative humidity and temperature in the ambient air and inside the duct
- External sensors design improves measurements accuracy as there is no influence from components heating
- Seamlessly combined humidity and temperature sensors with digital auto compensation
- External sensing probe for quicker response
- Backlit LCD display with displaying both actual temperature and humidity
- Smart design for easy mounting and disassembly and maintenance
- Temperature and humidity fully calibrate able
- Choice of two lengths selectable for the sensor probe
- Provide two linear analog outputs for humidity and temperature measurements
- Modbus RS485 communication
- CE-approval

SPECIFICATIONS

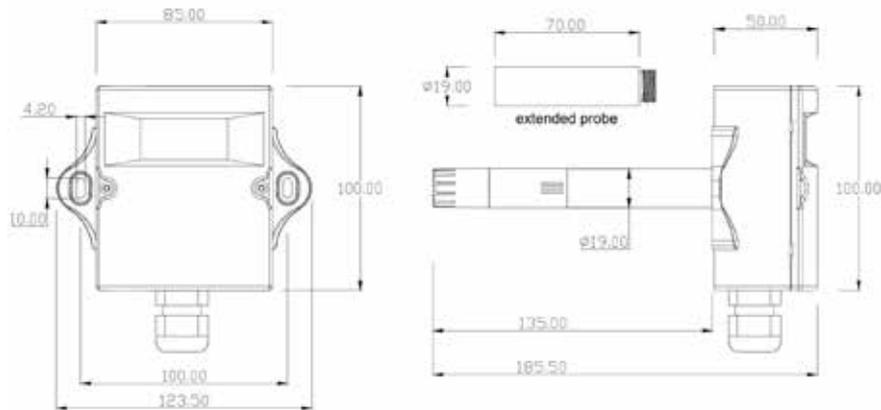
Parameter	Temperature	Relative Humidity
Accuracy	±0.4°C @20°C	±3%RH (20%~80%RH)
Measuring range	0~50°C (default)	0 ~100%RH
Display resolution	0.1°C	0.1%RH
Stability	±0.1°C	±1%RH per year
Storage environment	10~50°C, 20%RH~60%RH	
Output	2 x 0~10VDC(default) or 2 x 4~20mA (selectable by jumpers) 2 x 0~5VDC (selected at the time of ordering)	
RS485 interface (optional)	Modbus RS485 interface	
Power supply	24 VDC/24V AC ±20%	
Power cost	≤1.6W	
Permissible load	Max. 500Ω (4~20mA)	
Connection	Screw terminals/ wire diameter:1.5mm ²	
Housing/ Protection class	PC/ABS fireproof material IP40 class / IP54 for requested models	
Dimension	THP Wall-mounting series: 85(W) x 100(H) x 50(D)mm+65mm (external probe) xØ19.0mm TH9 Duct-mounting series: 85(W) x 100(H) x 50(D)mm +135mm (duct probe) xØ19.0mm	
Net weight	THP Wall-mounting series: 280g TH9 Duct-mounting series: 290g	

DIMENSIONS AND MOUNTING

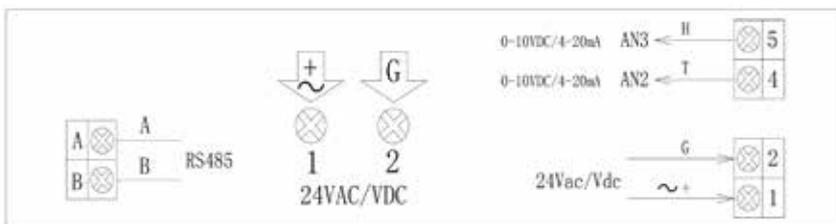
FOR GCD-S101-V/A MODELS



FOR GCD-S100-V/A MODELS



WIRING DIAGRAM



MODBUS AND ANALOG OUTPUT

MODEL GUIDE		
Type	Model	Description
Wall Mounting (with external sensor probe) No LCD	HDM-THP110/120/130	2X 0~10VDC/ 2X 4~20mA/ 2x 0~5VDC linear outputs for temperature and humidity measurements. No LCD display.
	HDM-THP111/121/131	2X 0~10VDC/ 2X 4~20mA/ 2x 0~5VDC linear outputs for temperature and humidity measurements. Modbus RS485 interface. No LCD display.
	HDM-THP101	Modbus RS485 protocol for temperature and humidity measurements. No LCD display.
Wall Mounting (with external sensor probe) LCD display	HDM-THP201	Modbus RS485 protocol for temperature and humidity measurements. LCD display temperature & humidity.
	HDM-THP210/220/230	2X 0~10VDC/ 2X 4~20mA/ 2x 0~5VDC linear outputs for temperature and humidity measurements. LCD display temperature & humidity.
	HDM-THP211/221/231	2X 0~10VDC/ 2X 4~20mA/ 2x 0~5VDC linear outputs for temperature and humidity measurements. Modbus RS485 interface. LCD display temperature & humidity.
Duct Probe Type No LCD	HDM-TH9110/120/130	Duct probe type with 2X 0~10VDC/ 2X 4~20mA/ 2x 0~5VDC linear outputs for temperature and humidity measurements. No LCD display.
	HDM-TH9111/121/131	Duct probe type with 2X 0~10VDC/ 2X 4~20mA/ 2x 0~5VDC linear outputs for temperature and humidity measurements. Modbus RS485 interface. No LCD display.
	HDM-TH9101	Duct type with Modbus RS485 interface.
Duct Mounting With LCD	HDM-TH9201	Duct probe type with a Modbus RS485 interface. LCD display temperature & humidity.
	HDM-TH9210/220/230	Duct probe type with 2X 0~10VDC/ 2X 4~20mA/ 2x 0~5VDC linear outputs for temperature and humidity measurements. LCD display temperature & humidity.
	HDM-TH9211/221/231	Duct probe type with 2X 0~10VDC/ 2X 4~20mA/ 2x 0~5VDC linear outputs for temperature and humidity measurements. Modbus RS485 interface. LCD display temperature & humidity.

Suffix 1: temperature scaling (option)

- T05: 0~50°C (default value if option below are missing in an order)
- T06: 0~60°C
- T26: -20~60°C

Suffix 2: IP54 class (option)

- Only for models without LCD
- If not selected: The housing is IP40 class

Suffix 3: extended probe of TH9 (non-requested option)

- 1: the probe length is added to 135+70mm
- 2: the probe length is added to 135+140mm
- If not selected: the default probe length is 135mm

For example:

HDM-THP201-T0050 indicates the wall mounting transmitter with Modbus RS485 interface for temperature and humidity measurements. LCD display temperature & humidity. The temperature range is 0~50°C.

HDM-TH9211-1 indicates the duct type transmitter with Modbus RS485 interface. LCD display temperature & humidity. The temperature scaling is -20~60°C. The duct probe length is extended to 135+70mm.