

TRH-307A-PM

Temperature and Humidity Controller



AMBETRONICS
AN ISO 9001:2015 CERTIFIED COMPANY

PANEL MOUNT



Features

- Highly accurate Digital technology sensor gives fast and reliable output.
- Temperature range is -30°C to +80°C with accuracy of ± 0.5 °C.
- Relative Humidity range is 0% RH to 100%RH with accuracy of ± 2 %RH.
- Long term stable output for both Temperature and Relative Humidity.
- Digital Display of Temperature & Relative Humidity on Seven Segment Display
- 2 Nos. Alarm relay contacts with two configurable Alarm levels & one relay for fail safe relay.
- Easy handling & programming with 3 keys
- Password protected programming with password changing facility.
- Software calibration for both Temperature & Relative Humidity.
- Flash Memory for Data security in the event of power failure.
- Optional Standard 4-20mA signal outputs with configurable range.
- Optional Isolated RS-485 communication port with MODBUS RTU Protocol.
- Compact size, can be easily installed.

Applications

- Clean Rooms • Server Room • Pharmaceutical • Hospitals / Labs • Walk-in-cooler
- Greenhouse Breeding • Indoor Air Quality (IAQ)/Warehouse
- Air Condition Room/Cold Room • Energy Management System (EMS)

TECHNICAL SPECIFICATIONS

General :

Sensor Type	: Capacitive Polymer Sensor
Sensor Cable Length	: 1 meter to 15 meter available on request
Range	: For Temperature = -30°C to 80°C For Relative Humidity = 0 % RH to 100% RH
Display	: 2-Line, 4-Digit 13mm (H) Seven Segment Display. 8 LEDs to indicate status of instrument.
Control Action	: i) Two independent Alarm set points with Latch & Non-latch facility. : ii) User selectable Hysteresis
Setting	: By using 3 keys on front panel

Performance :

Accuracy	: ± 0.5 °C for Temperature : ± 2 % RH for Relative Humidity
Response Time	: Approx 5 Seconds

Electrical :

Supply Voltage	: 90 to 270VAC, 50 Hz
Power Consumption	: Less than 20 Watts.

Environmental :

Operating Temperature	: -20°C to +55°C
Storage Temperature	: -30°C to +70°C
Relative Humidity	: Less than 95% Non-Condensing.

Error Monitoring :

- During Sensor Break / Open, the Display shows 'SENS OPEN' & output current will be as per Upscale / Downscale.
- During Over Range the Display Shows 'OVER RNGE' & Output current will be as per Upscale/Downscale
- Upscale current = 21mA • Down scale current = 3.7mA

Output Signal :

Standard	: Three SPDT Relay (one for FailSafe & Two for Alarm indication) of rating. 5A/250VAC, 5A/ 30VDC
Optional	: a) Two 4-20mA Current Outputs with configurable range selection, one each for Temperature & Relative Humidity Respectively b) RS-485 isolated Port with MODBUS RTU protocol.

Accessories (Optional) :

- Canopy Mounting stand. • SCADA Software. • RS-232 to RS-485 convertor
- Hooter Cum Flasher. • RS-485 to USB convertor

Panel Mount Housing :

Protection Class	: IP-40
Cutout	: 92 mm (W) x 92 mm (H)
Dimension	: PM - 96 mm (W) x 96 mm (H) x 175 mm (D)
Enclosure	: ABS Plastic, Black colour
Mounting	: Panel Mounting
Weight	: Approx 600 grams

ORDERING INFORMATION

TRH	A	B	C	D	E
	A) Model No. 1) 307 A-PM	B) Sensor Cable Length 1) 1 Meter 2) 2 Meter 3) 10 Meter 4) 15 Meter	C) Retransmission Output 1) None 2) 4 to 20mA 3) RS-485 series	D) Communication Port 1) None 2) RS-485 Serial Port	E) Sensor Housing 1) Stainless Steel (SS-316) 2) Nylon

* Before placing order; Refer the above ordering information or Contact below address for assistance.

Manufactured by :



CIMFR



PESO



UL



Ex



IECEx



NSIC



GeM



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Specifications subject to change without any prior notice