# **Temperature and Humidity Controller**

# **TRH-307A-PM**

### PANEL MOUNT



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## 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

- Hospitals / Labs Indoor Air Quality (IAQ)/Warehouse
  - Air Condition Room/Cold Room

- Clean Rooms Server Room Pharmaceutical
- · Walk-in-cooler · Greenhouse Breeding
- Energy Management System (EMS)

## **TECHNICAL SPECIFICATIONS**

#### **Error Monitoring :**

**General:** During Sensor Break / Open, the Display shows '5En5 aPEn' & output current will Sensor Type : Capacitive Polymer Sensor be as per Upscale / Downscale. Sensor Cable Length 1 meter to 15 meter available on request · During Over Range the Display Shows 'OVER' & Under range Display Shows 'UNDER' : For Temperature = -30°C to 80°C Range and output current will be as per Upscale/Downscale For Relative Humidity = 0 % RH to 100% RH Upscale current = 21mA Display : 2-Line, 4-Digit 13mm (H) Seven Segment Display. Down scale current = 3.7mA 8 LEDs to indicate status of instrument. **Output Signal: Control Action** : i )Two independent Alarm set points with Latch Standard : Three SPDT Relay (one for FailSafe & Two for Alarm indication) & Non-latch facility. of rating. 5A/250VAC, 5A/ 30VDC ii) User selectable Hysteresis Optional a) Two 4-20mA Current Outputs with configurable range selection, 5 Setting By using 3 keys on front panel one each for Temperature & Relative Humidity Respectively Performance b) RS-485 isolated Port with MODBUS RTU protocol. Measurement : ± 0.5°C for Temperature Accessories (Optional) : Accuracy 2% RH for Relative Humidity · Canopy Mounting stand. · Hooter Cum Flasher. **Response Time** Approx 5 Seconds SCADA Software. · RS-485 to USB convertor RS-232 to RS-485 convertor **Electrical** : **Supply Voltage** 90 to 270VAC, 50 Hz **Panel Mount Housing: Power Consumption** Less than 20 Watts. Protection Class : IP-40 Cutout : 92 mm (W) x 92 mm (H) **Environmental:** Dimension : PM - 96 mm (W) x 96 mm (H) x 170 mm (D) **Operating Temperature** -15°C to +55°C : Enclosure : ABS Plastic, Black colour Storage Temperature -20°C to 60°C : Mounting : Panel Mounting **Relative Humidity** Less than 95% Non-Condensing. Weight : Approx 1.4 Kg **ORDERING INFORMATION** В TRH B) Sensor Cable A)Model No. D) Communication E) Sensor Housing C) Retransmission Length 1)307 A-PM Port Stainless 1) Output 1) 1 Meter 1) None 1) None Steel (SS-316) 2) 2 Meter 2) RS-485 Serial 2) 4 to 20mA 2) Nylon 3) 10 Meter Port 3) RS-485 series 4) 15 Meter \* Before placing order please Refer the above ordering information or Contact below address for assistance. Ex) 🔤 🧕 Manufactured by : E **AMBETRONICS ENGINEERS PVT. LTD.** NAKE & SELA 17-B, Tarun Industrial Estate, Mogra Pada, New Nagardas Road, Andheri (E.) Mumbai - 400 069, India. Follow us on CC. www.ambetronics.com Mob.: +91-9324571143 • +91-9137820984 • Tel.: +91-22-61673000/58/64, 28371143 in

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