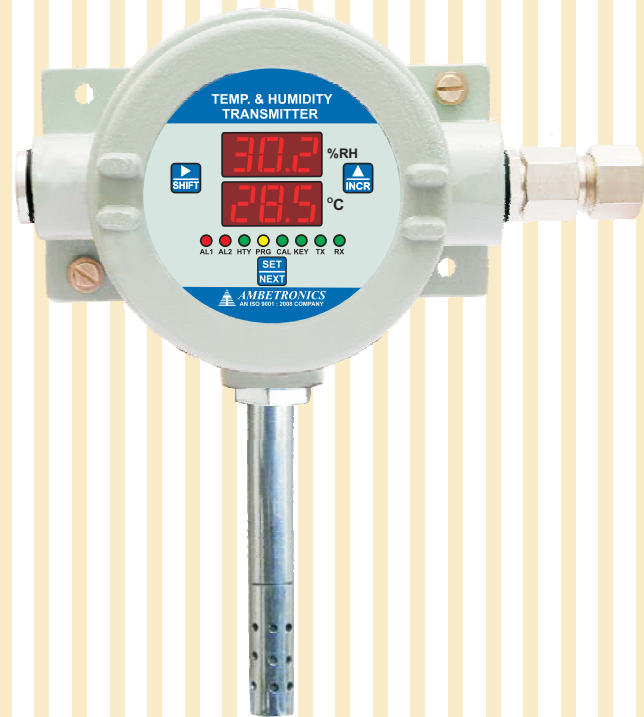# TEMPERATURE & HUMIDITY TRANSMITTER

TRH-554-WP

TRH-554-FLP

Features

- Highly accurate Digital technology sensor gives fast and reliable output.
- Temperature range is -40 to 120ºC with accuracy of ± 0.5 ºC.
- Relative Humidity range is 0 to 100%RH with accuracy of ± 2%RH.
- Long term stable output for both Temperature and RH.
- Calculated Dew point measurement based on measurement of Temperature and Humidity.
- User selectable Temperature, RH & Dew point outputs.
- Digital Display of Temperature & RH on Seven Segment Display
- Standard 4-20mA signal outputs with configurable range.
- Easy handling & programming with 3 keys for WP Models.
- Can be programmed using Remote Control upto 10meters line of site distance.
- Non-intrusive programming for Flameproof models using Magnetic Pen.
- Password protected programming with password changing facility.
- Software calibration for both Temperature & Humidity.
- Optional Alarm relay contacts with two configurable Alarm levels & one relay for fail safe relay.
- Optional Range Lock set points can be configured for both Temperature & Humidity.
- Optional RS-485 communication port with MODBUS RTU Protocol.

Applications

- **Clean Rooms**
- **Swimming Pool**
- **Pharmaceutical**
- **Hospitals / Labs**
- **Enthalpy Control**
- **Museums / Archives**
- **Refrigeration Control**
- **Indoor Air Quality (IAQ)**
- **HVAC / Buildings Controls**
- **Energy Management System (EMS)**

MUST FOR YOUR PROCESS

General

Detection Method : Advanced CMOSens Technology.
Range : For Temperature = -40 to 120°C
              For Relative Humidity = 0 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 and Logic option.
          iii) Configurable Range Lock set points for Temp. &
             RH (optional)
Setting : By 3 Keys on front panel for WP model
       By using Magnetic pen for Flameproof model
       By using Remote Control for WP/FLP model (Optional)

Performance

Measurement Accuracy : ± 0.5°C for Temperature
                    ± 2% RH for Relative Humidity
Response Time : Approx 30 Seconds
Start-up Time : Approx 30 Seconds.

Electrical

Supply Voltage : 18 to 36 VDC; Typically 24VDC.
Power Consumption : Less than 3.5 Watts
Cable : 3 Wires (1.5 mm^2) Flexible or Armoured
       Shielded Cable.

Weatherproof Housing

Protection Class : IP-65
Cabinet Material : Polycarbonate, grey colour
Cable Entry : Thermoplastic cable gland (IP 68)
Dimension : 218 mm (H) x 119 mm (W) x 57 mm (D)
Mounting : Wall Mounting / Stand Mounting/Duct Mounting
Weight : Approx 400 Grams.

Output Signal

Standard : Two 4-20mA Current Outputs with configurable range
       selection.
Optional : Three SPDT Relays (one for failsafe and two for Alarm
       Condition) of rating "120VAC/2A, 24VDC/2A"
Optional : RS-485 Communication port with MODBUS RTU protocol.

Error Monitoring

During Sensor break / open, the Display shows 'SENSOR OPEN' &
4-20mA output goes down to 3.7mA.

Environmental

Operating Temperature : -40 to +120°C
Storage Temperature : -50 to +130°C
Humidity : Less than 95% Non-Condensing.
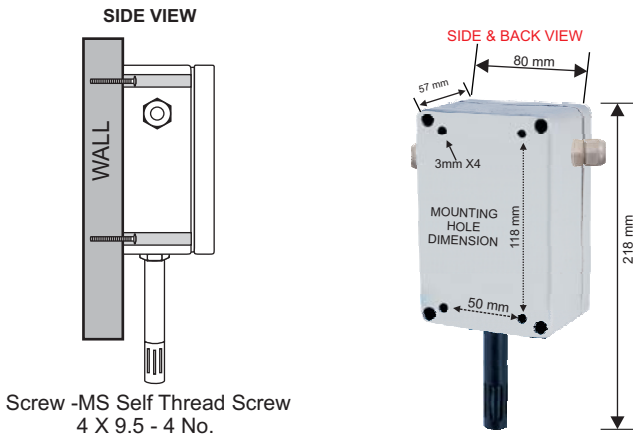
Accessories (Optional)

CE certified 24 VDC Power supply.   RS-232 to RS-485 convertor
Canopy Mounting stand.   Hooter Cum Flasher.
SCADA Software.   Remote Control.
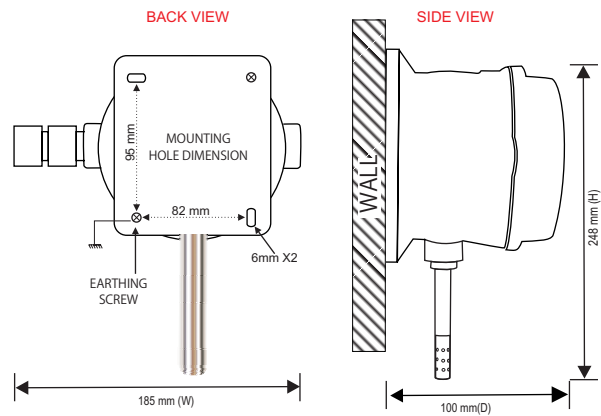RS-485 to USB convertor

Flameproof Housing

Protection Class : IP-65 for Gas Gr. IIA, IIB & CMRI approved
       enclosure, CCOE(Optional).
Cabinet Material : Cast Aluminium alloy, LM-6
Cable Entry : Double compression cable gland (Ex-Proof), ¾" ET-type
Dimension : 248 mm (H) x 242 mm (W) x 126 mm (D)
Mounting : Wall Mounting / Stand Mounting / Duct Mounting
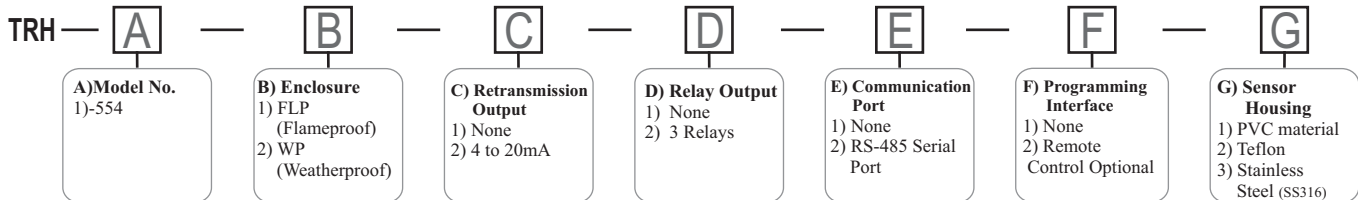Weight : Approx 2.0 Kg

DIMENSION

WEATHERPROOF ENCLOSURE DIMENSIONS

SIDE VIEW

Screw -MS Self Thread Screw
4 X 9.5 - 4 No.

FLAMEPROOF ENCLOSURE DIMENSIONS

ORDERING INFORMATION

TRH — A — B — C — D — E — F — G

A) Model No.	B) Enclosure	C) Retransmission Output	D) Relay Output	E) Communication Port	F) Programming Interface	G) Sensor Housing
1)-554	1) FLP (Flameproof)	1) None	1) None	1) None	1) None	1) PVC material
	2) WP (Weatherproof)	2) 4 to 20mA	2) 3 Relays	2) RS-485 Serial Port	2) Remote Control Optional	2) Teflon
						3) Stainless Steel (SS316)

* Before placing order please Refer the above ordering information or Contact us for assistance.

Specifications subject to change without any prior notice

Version 1.0 3K AEPL 02.12