

# TRH-554-FLP-PDA

## Temperature & Humidity Transmitter



**AMBETRONICS**  
AN ISO 9001:2015 CERTIFIED COMPANY



**Magnetic  
Wand for  
Programming**

### Features

- Highly accurate Digital technology sensor gives fast and reliable output.
- Temperature range is -40°C to +100°C with accuracy of  $\pm 0.5$  °C.
- Relative Humidity range is 0% RH to 100%RH with accuracy of  $\pm 2$ %RH.
- Long term stable output for both Temperature and Relative Humidity.
- Digital Display of Temperature & Relative Humidity on Seven Segment Display
- Standard 4-20mA signal outputs with configurable range.
- 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 2 Nos. Alarm relay contacts with two configurable Alarm levels & one relay for fail safe relay.
- 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
- Warehouse / Cold Room
- Indoor Air Quality (IAQ)
- Air Condition Room
- Energy Management System (EMS)



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**MUST FOR HUMAN & INDUSTRIAL SAFETY**

# TECHNICAL SPECIFICATIONS

## General

Sensor Type	: Capacitive Polymer Sensor
Range	: For Temperature = -40°C to 100°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 Magnetic wand for Flameproof model

## Performance

Measurement	: $\pm 0.5^\circ\text{C}$ for Temperature
Accuracy	: $\pm 2\%$ RH for Relative Humidity
Response Time	: Approx 5 Seconds

## Electrical

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

## 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' & Under range Display Shows 'UNDER' and output current will be as per Upscale/Downscale
- Upscale current = 21mA
- Down scale current = 3.7mA

## Environmental

Operating Temperature	: -15°C to +55°C
Humidity	: Less than 95% Non-Condensing.

## Output Signal

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

## Accessories (Optional)

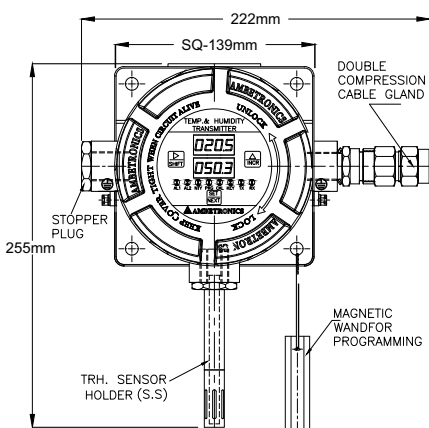
- CE certified 24 VDC Power supply.
- Canopy Mounting stand.
- RS-232 to RS-485 convertor
- RS-485 to USB convertor
- SCADA Software.
- Flameproof, Weatherproof IP66 Hooter Cum Flasher - Model No.: HCF/FLP/2C
- CIMFR CERTIFICATE NO. : IN/CIMFR/TR22/P/1509 Dt. : 17/08/2022
- PESO CERTIFICATE NO. : P545941/1 Dt. : 09/09/2022

## Flameproof Housing

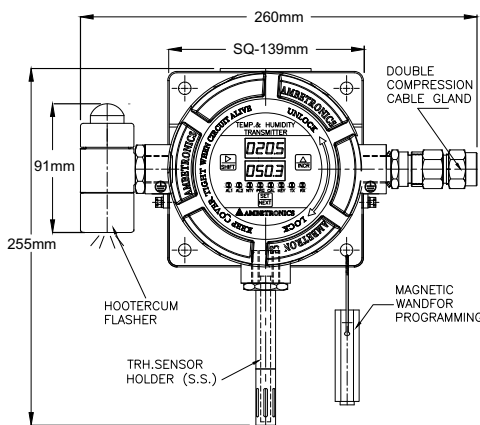
Degree of Protection Class	: IP66 /IP68
• CIMFR CERTIFICATE NO.	: IN/CIMFR/TR21/S/977 Dt. : 06/07/2021
• PESO CERTIFICATE NO.	: P538850/6 Dt. : 16/06/2022
Housing Material	: Cast Aluminium LM6 alloy or Stainless Steel
Cable Entry	: Flameproof, Weatherproof IP66 Double Compression Cable Gland - Model No.: CG/FLP/2C M20 x 1.5 (P) & M25 x 1.5(P), 1/2" NPT & 3/4" NPT
• CIMFR CERTIFICATE NO.	: IN/CIMFR/TR21/R/2147 Dt. : 12/10/2021
• PESO CERTIFICATE NO.	: P538850/7 Dt. : 16/06/2022
Dimension	: i) 255mm (H) with sensor holder x 222mm (W) with stopper plug & cable gland x 125mm (D) ii) 255mm (H) with sensor holder x 260mm (W) with Hooter cum Flasher & cable gland x 125mm (D)
Mounting	: Wall Mounting / Stand Mounting / Duct Mounting
Weight	: Approx 2.53 Kg

## FLAMEPROOF ENCLOSURE DIMENSIONAL DETAILS

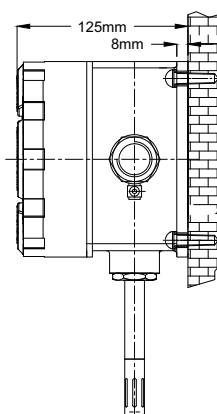
FRONT VIEW WITHOUT HOOTER



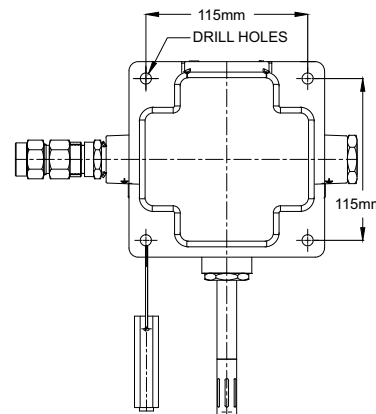
FRONT VIEW WITH HOOTER



SIDE VIEW



BACK VIEW



## ORDERING INFORMATION

TRH —	<b>A</b>	—	<b>B</b>	—	<b>C</b>	—	<b>D</b>	—	<b>E</b>	—	<b>F</b>
	A) Model No. 1) 554		B) Enclosure 1) FLP (Flameproof)		C) Retransmission Output 1) None 2) 4 to 20mA		D) Relay Output 1) None 2) 3 Relays		E) Communication Port 1) None 2) RS-485 Serial Port		F) Sensor Housing 1) Stainless Steel (SS-316)

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

Manufactured by :



CIMFR



PESO



CE



UL



Ex



TCE



NSIC



GeM



MAKE IN INDIA

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Specifications subject to change without any prior notice