

## Temperature + Humidity Indicator



### Introduction :

TRH-100 is battery operated, micro-controller-based Temperature and Humidity indicator. Battery life is max. of 1 year.

TRH-100 is with magnetic keys for programming parameters, also having MIN./MAX function, which can be seen by using magnetic keys without opening enclosure cover.

In built unit in LCD display to understand the display value for Temp. & Humidity, Min./Max indication for value displayed on LCD display.

### Approval & Compliance

- Approval & Compliance for Flameproof Certified to Ex d IIC T6 Gb, IP66
- CIMFR CERTIFICATE NO. : IN/CIMFR/TR19/4071 Dt. : 13/12/2019
- PESO CERTIFICATE NO. : P468728/2 Dt. : 21/02/2020
- Standard Compliance :
  - IS / IEC 60079-0 : 2011
  - IS / IEC 60079-1 : 2014
  - IS / IEC 60529 : 2001

### Features :

- 1 year battery life ( 3.7V, lithium ion rechargeable Battery)
- Accuracy :  $\pm 1^\circ\text{C}$  ,  $\pm 2\%$  RH,
- Dual LCD Display for Temp. & Humidity indication with its units.
- Min./Max function with its function visibility on LCD display
- IP66, rugged enclosure for harsh environment
- In built RTC display

### Applications :

- Clean room application in Pharmaceutical
- Pharma Environments monitoring applications.
- HVAC (Heating, ventilation, Air conditioning, Cooling).
- Animal house clean room

## TECHNICAL SPECIFICATIONS

### Input

Sensors : Capacitive Polymer sensor

### Indication

Temperature : Upper display for Temperature indication with its unit ' $^\circ\text{C}$ '

Humidity : Lower display for Humidity indication with its unit % RH

RTC : 24 Hours format

Min./Max. function : Function indication on display as per selection, either 'MIN' or 'MAX.'

### Range

Temperature :  $-20^\circ\text{C}$  to  $60^\circ\text{C}$

Humidity : 0% to 100 % RH non-condensing

Display resolution : 0.1 for both Temp. & Humidity

### Accuracy

Temperature :  $\pm 1^\circ\text{C}$

Humidity :  $\pm 2\%$  RH

RTC :  $\pm 59$  seconds / month

### Programmable Parameters

Sampling Interval : 3 to 20 seconds programmable

Offset :  $\pm 10\%$  of range of Temperature & Humidity

### Environmental Storage

Operating Temp. :  $0^\circ\text{C}$  to  $50^\circ\text{C}$

Storage Temp. & Humidity :  $-10^\circ\text{C}$  to  $60^\circ\text{C}$

10 to 70 % RH, (Non condensing environment)

### Electrical

Battery : 3.7V, lithium ion rechargeable Battery

Battery Life : 1 year with 3 second sampling interval

### Flameproof Housing

Degree of Protection Class : IP-66

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Dimension : 230 mm(H) x 180 mm(W) x 125 mm(D) - Without Gland

230 mm(H) x 260 mm(W) x 125 mm(D) - With Gland

Mounting : Wall / Stand / Pipe

Weight : Approx 2.5 kg

Material : Alluminium, LM-6 alloy

TRH Sensor Holder : SS-304

Manufactured by :

**AMBETRONICS ENGINEERS PVT. LTD.**

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