

UNIVERSAL INPUT HAND-HELD TEMPERATURE INDICATOR

An instrument with high accuracy and precision, Highest standard of technology incorporated in designing to achieve accuracy and stability. The performance is at par with high level device available in the market. Instrument is capable of interface with eight types of thermocouples and PT-100 (385). Input is selectable through software, no need to change any component or add on card. Offset and input filter are also selectable to match sensor reading. In addition PT-100 gives 0.1°C resolution and high accuracy to meet pharmaceutical requirements. Instrument is capable to measure from -200°C to 1800°C depending on sensor. It's design makes it suitable for maintenance, service and calibration of field temperature equipments.

I. Main Features

- Designed specially for equipments that work -200 ~ +1800°C, such as light industry, oven, furnace, lab equipments, cooling / heating equipments. Easy to use and low cost.
- LED display which looks good in low ambient light areas.
- Supports almost all type or temperature sensor support like PT-100 and Thermocouples.
- Offset for input is adjustable.
- Input filter is setttable for better stability.
- Auto Power OFF facility to save battery power.
- 2 x 1.5V AA Battery operation.
- Qualified with ISO 9001:2008 standard.

II. Technical Specifications

1 : Display	: 4 Digit Seven Segment 0.36" LED Display Red
2 : Range	: -200°C to 1800°C depend on sensor
3 : Thermocouple	: B, E, J, K, N, R, S, T
4 : Resolution	: 1°C
5 : Accuracy	: 0.25% ±1 Count
6 : PT-100 (385)	: PT-100(385)
7 : Resolution	: 0.1°C
8 : Accuracy	: 0.1% ±2 Count
9 : Offset	: ±12.5°C Settable
10 : Input Filter	: 1-10 Reading Settable
11 : Auto Power OFF	: 10 Minutes (Fixed)
12 : Power Supply	: 2 x 1.5V AA Battery
13 : Battery Life	: Approximately 100 Hrs. Uninterrupted
14 : Enclosure Size	: 135 x 70 x 25 (All in mm)
15 : Ambient Temperature	: 0 to +50 °C
16 : Storage Temperature	: 0 to +70 °C
17 : Humidity	: 0-90 % RH (Non Condensing)
18 : Weight	: 160 Grams With Battery

RTD	RANGE IN °C (@ RESOLUTION 0.1°C)	ACCURACY
PT-100 (385)	-150 TO 600	0.1% (3-Wire) ±2 Digit

THERMOCOUPLE	RANGE IN °C (@ RESOLUTION 0.1°C)	ACCURACY
TYPE - B	300 TO 1800	±0.25% ±1 Digit
TYPE - E	-200 TO 1000	
TYPE - J	-200 TO 1200	
TYPE - K	-200 TO 1350	
TYPE - N	-200 TO 1300	
TYPE - R	-50 TO 1750	
TYPE - S	-50 TO 1750	
TYPE - T	-200 TO 390	

III. Basic Display Status

When powered on, display shows firmware version like "V1.00", then displays actual temperature. If the actual value is overrun by the measure range of sensor which is depend on the sensor type it may vary from -200°C to 1800°C (for example sensor break) display "OPEN".

IV. Operation Description

Basically there are three function keys which makes it easy to set the parameter setting. First key from the left is Menu Key, Second Down Key, Third Up Key and Power Key. As shown below.



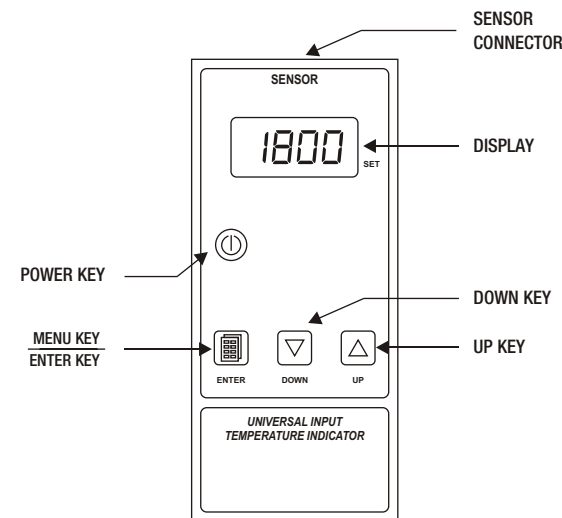
Press power key for more than one second to power up instrument. display shows firmware version like "V1.00", then displays actual temperature. Same way to switch off press power key for more than one second. If instrument is not in use for more than 10 minute it will get automatically switched off.

V. Parameter Setting

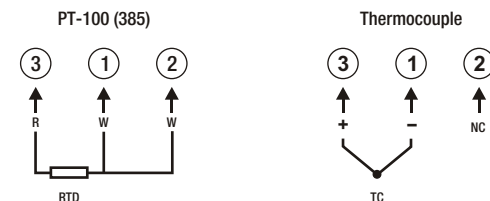
Press "MENU" key to enter setting mode, display will ask for password, set 92 using "UP" and "DOWN" key, and press "ENTER" to enter in setting mode, if password is correct it enter in setting mode if incorrect then display will show "ERR" and back in measure mode. In setting mode first it will ask for "INP" (select sensor type). By pressing "UP" and "DOWN" key you can select desired sensor type. Then press "ENTER" key to save changes and enter in next menu, which is "SCB" (Input Offset). change setting through "UP" and "DOWN" key you can select desired value. Then press "ENTER" key to save changes and enter in next menu, last menu is "FLT" means Input filter. again you can change setting through "UP" and "DOWN" key you can select desired value. Then press "ENTER" key to save changes. Now instrument will enter in measure automatically.

Code	Name	Description	Setting Range
INP	Input Type	B, E, J, K, N, R, S, T and RTD	----
SCB	Input Offset	Scb is used to make input offset to compensate the error produced by sensor. PV after compensation = PV before compensation + Scb.	±12.5°C
FLT	Input Filter	Moving average input filter. 1 = 0.25mS Display Rate	1 - 10

VI. Front Panel Layout



VII. Sensor Connection diagram



Note :

1. For thermocouple use compensated cable for better result.
2. Pay attention during sensor wiring, polarity should be correct.

DEALER :