



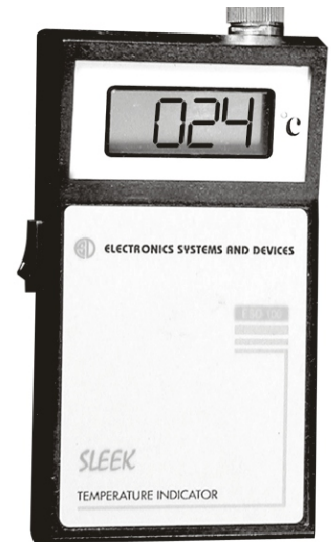
## INTRODUCTION

Temperature Indicator play an important part in any process industry. Quick and accurate measurement of a process temperature will improve the final product quality, reliability and reduce rejection.

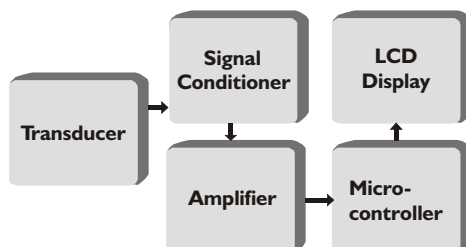
The Sleek 100 is a microcontroller based hand held type Portable Digital Temperature Indicator which is designed for fast and accurate measurement of temperature. It is designed using highly reliable electronic components. Sleek 101 is available with peak hold facility. It holds the peak reading till reset. Sleek 100 is specially suited for field applications where AC power is not available quickly. The process

temperature is displayed directly in digits, which gives better resolution compared to analog indicator.

The Sleek 100 accepts all types of Thermocouples and Pt - 100 as input. Wide ranges of measurement are available depending on the sensor used. The instrument is immune to mechanical vibrations. Even the holding position will not affect the measurement accuracy. The LCD display ensures low power consumption. Use of highly reliable electronic components with low temperature coefficients ensure long and trouble free service. The instrument is tested for its performance under various climatic conditions.



## PRINCIPLE OF OPERATION



The Sleek 100 series is based on the principle of a high input impedance amplifier feeding an analog to digital convertor. The input signal generated by the transducer is fed to a sensor compensation circuit, where automatic ambient compensation in case of thermocouple & lead resistance compensation in case of Pt-100 is achieved. Duly compensated signal is fed to a signal conditioning amplifier, output of which is given to digital display. The linearisation of the input signal from the transducer is done by hardware in the input circuit. This gives a standardized signal to the analog to digital convertor which drives the seven segment LCD display, indicating the temperature directly.

## APPLICATION

The Sleek 100 series temperature indicator can be used in almost any industry, laboratory etc. where accurate temperature measurement is to be carried out in the field. Sleek 101 is useful for foundry applications where instantaneous peak temperature is latched till reset.

## FEATURES

- ✓ Proven troublefree field performance
- ✓ Highly compact
- ✓ Sensor Open Indication
- ✓ Fast response time
- ✓ Designed for Pt-100, Thermocouples
- ✓ Low battery Indication
- ✓ Maximum MTBF and minimum MTTR
- ✓ Low current Consumption
- ✓ Peak hold facility
- ✓ °C / °F field selectable
- ✓ Inbuilt Linearisation

## SPECIFICATIONS

Model	■ Sleek 100	Relative Humidity	■ 90 % Non Condensing
Ranges	■ Std. as per chart below (other on demand)	Ambient Temperature	0 to 55 °C
Input	■ Pt - 100 / Thermocouple / 4-20mA	Amb. Temp. compensation	■ Built in upto 55 °C
Indication	■ 2 0 0 . 0 Alfa numeric LCD	Accuracy deviation due to	
Character size	■ 4.5 (W) x 8 (H) mm	a) Temperature change	■ +/- 0.002 % / °C ref at 25 °C
Indication accuracy	■ +/- 0.2 % of fullscale +/- 1 digit	b) Supply Variation	■ +/- 0.005 % / V
Least count	■ 0.1 °C upto 200 °C, 1 °C above 200 °C	Sensor break indication	■ Open
Power supply	■ 9 V battery	Input impedance	■ < 10 Mohms, (only for T/C input )
Battery Life	■ 50 hours	Recalibration (if reqd)	■ By Software
Low Battery Indication	■ Provided	Enclosure	■ ABS Plastic
		Dimensions	■ 90 x 60 x 20 mm
		Termination	■ 3 pin connector ( OMEGA ■ Connector on demand)
		Weight	■ 400 grams

## ORDERING INFORMATION

### Sleek 10 X1

Model

**Type**  
0 -- Indicator  
1 --- Peak hold

### X2

**Input**  
1 -- Pt - 100  
2 --- J type T/C  
3 -- K type T/C  
4 -- R type T/C  
5 -- S type T/C  
6 -- 0 to 20 mA  
7 -- 4 to 20 mA  
8 -- 0 to 2V DC  
9 -- Other

### X3

**Range**  
0 -- -50 to 50 °C  
1 -- 0 to 100 °C  
2 -- 0 to 200 °C  
3 -- 0 to 100 %  
4 -- 0 to 400 °C  
5 -- 0 to 600 °C  
6 -- 0 to 800 °C  
7 -- 0 to 1000 °C  
8 -- 0 to 1200 °C  
9 -- Other

Input	Standard Ranges in °C		
Pt-100	-50 - 50	0 - 100	0 - 200
J	0 - 200	0 - 400	0 - 600
K	0 - 200	0 - 400	0 - 600
	0 - 800	0 - 1000	0 - 1200
R, S	0 - 1600		
mA / mV	0 to 100 % or process value		

**Ordering eg. Sleek 100 - 10**  
Digital Temp. Indicator Sleek100  
Input -- Pt - 100 (1)  
Range -- -50 °C to 50 °C (0)

## SENSORS FOR PORTABLE

### Immersion type



### Leaf type



### Pierce type



## ADDITIONAL CHOICE

- ✓ Single Input Indicators
- ✓ Supersize display Indicators
- ✓ Field mounting Indicators
- ✓ Multi Input Indicators
- ✓ Multi Channel Indicators
- ✓ Flameproof Indicators



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**ESD HOUSE,**  
55, Hadapsar Indl. Estate,  
Pune - 411013 (INDIA).

Phone : (020) 26819611 to 15  
Fax : (020) 26871951  
e-mail : esdcdi@vsnl.com  
Web : www.esd-india.com