



- **Built-in Linearization for Thermocouple (optional)**
- **Provide analog and digital indication to the corresponding input signal**
- **Dual channel with or without alarm**
- **More reliable with high MTBF**
- **In built CJC for Thermocouple Input**
- **THREE wire lead length compensation for RTD Inputs**
- **TWO Wire Transmitter**
- **Retransmission Output(Optional)**
- **Transmitted Power Supply(optional)**
- **Online span and zero adjustments**

### **APPLICATION**

The 2HPSL Indicator find applications in the process industries for accurate and reliable monitoring of various process parameters. This model accepts thermocouple, RTD inputs facilitating temperature measurement of remote boilers. Thus this instrument is suitable for local / remote indication. Low cost, options, reliability of operation with high MTBF and ease of installation renders a greater level of customer satisfaction

### **DESCRIPTION**

2HPSL indicators accept direct current, voltage, RTD and Thermocouple inputs, and provide analog indication by raising LED strip. In addition 3½ digit 7 segment loop display is provided for precise monitoring of process value.

The 2HPSL model comes with two types of displays

- (i) 40 segment LED display
- (ii) 101 segment LED display

While 40 / 102 segment bar graph display provides analog indication precise of process value in 0 – 100%. 3 ½ digit LED display provides digital indication of process value in engineering unit.

2HPSL indicators are available in Dual channel with or without alarm options

Zero and span adjustments are provided for infield adjustments of both digital and bar graph display, for field calibration of indicator whenever required.

Indicators can be supplied with retransmission output of 4 – 20 mA, which can be used for remote telemetry or recording purpose

All signal inputs and output are connected through a 15 pin plug in type D sub connector and a 3 pin polarized screw type connector.

### **CALIBRATION**

Allow the instrument to stabilize for 30 minutes with power connected and the indicator situated in a draft face location.

- a. Inject a known signal of approximately 10% of span to the required channel and adjust the zero trim pot until the minimum specified reading is displayed
- b. Now, inject a signal of 90% of span and adjust the span trim pot until the maximum specified reading is displayed
- c. Repeat steps **a** and **b** for better accuracy

### **MOUNTING**

The instrument is housed in a vertical flush panel with MS black powder coating, conforming to IP50 standard

### **OPTIONS**

Option 1 : Retransmission Output ( 4 – 20 mA / 1 – 5 V / 0 – 2 V )

Option 2 : 24 V Transmitter Power Supply

### **SPECIFICATIONS**

#### **INPUTS**

DC Current	:	0 – 50 mA
DC Voltage	:	10 mV to 10 V DC
Thermocouple	:	8 types (T,E,J,K,N,R,S,B) with minimum input span of 5 mV and CJC in-built
RTD	:	Pt100 / Pt46 / Cu-53 (3 wire) with minimum input span 50 Deg. Celsius and sensing current 4 mA for upscale burnout detection & with inbuilt lead resistance compensation

## **OUTPUTS**

Field Transmitter	
power supply	: 24 V DC / 60 mA, Maximum
Retransmission Signal	: 4 – 20 mA / 1 – 5 V / 0 – 2 V
Accuracy	: +0.5% FS

## **ACCURACY**

±0.5% FS (Digital)

## **DISPLAY**

Bargraph Display	: 40 or 101 segment LED array
Digital Display	: 3 ½ digit , -1999 to 1999, Height 0.3”

## **RESOLUTION**

Bargraph Display	: 1% FS for 101 segment bar graph 2.5% FS for 40 segment bar graph
Digital Display	: 0.05 ±1 count

## **INPUT IMPEDANCE**

Voltage Input	: Greater than 200 K
4 – 20 mA DC	: 100 Ohms, Compliance resistor
10 – 50 mA DC	: 40 Ohms, Compliance resistor

## **RESPONSE TIME**

200 ms, typical

## **SETPOINT OPTIONS**

Standard	: Hi, Lo
Options	: HI, V HI and Lo, V Lo
Set point adjustments	: Access through front panel key pad
Accuracy	: ±0.5%
Hysteresis	: 1.5% fixed
Contact type	: One change over contact (SPDT)
Contact rating	: 3 A / 230 V AC (resistive)
Accuracy	: +0.5%

## **POWER SUPPLY**

110 V/220 V/240 V AC +10%, 50 Hz

## **POWER CONSUMPTION**

10 VA Maximum.

## **CLIMATIC CONDITIONS**

Operating Temperature Range:	0 – 50 Deg. Celsius
Storage Temperature Range :	0 – 70 Deg. Celsius

Humidity : 4 – 95 % RH (non – condensing)

### **EXTENAL CONNECTION**

Signals and alarms : 25 pin D – sub connector  
Power : 3 pin plug (mating connector supplied)

### **MOUNTING**

Vertical Flush Panel with MS black powder coated

### **DIMENSION**

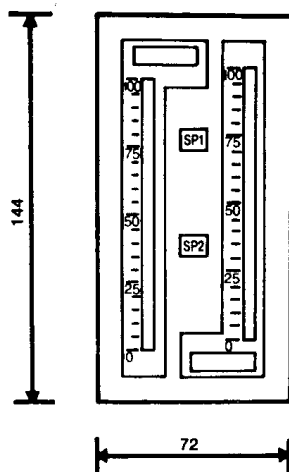
Bezel : 72mm X 144mm

Cutout : 68mm X 138mm

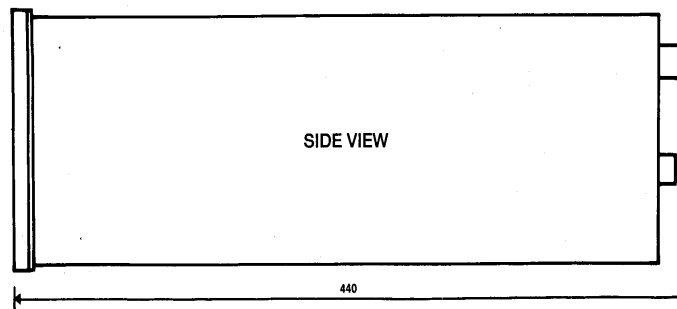
### **ORDERING INFORMATION**

#### **Please specify**

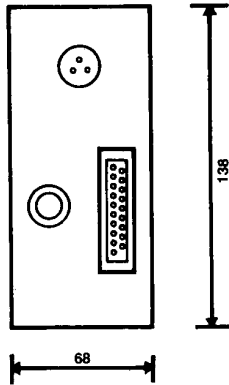
1. 2HPSL - Model ( 2HPSL / 2HPSL 4A )
2. Type of Input and Range -
3. Types of segments (40 or 101 segments) Set point configuration
4. Set point configuration
5. Power supply
6. Options



**FRONT VIEW**



**SIDE VIEW**



ALL DIMENSIONS IN MILIMETERS

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