

# PID Temperature Controller - Single Display

## PID-911, PID-711

### Features

- Multi Sensor Input - J/K or PT-100
- Economical & Easy to Use Model
- PID and ON-OFF Control Action
- 4 Digit 0.8inch\* Bright LED Display with RED and WHITE color option in PID-911

### TECHNICAL SPECIFICATION

#### INPUT SPECIFICATION:

Input Types	Input	Range
	J / K PT-100 2W/3W	J : 0 to 850°C, K : 0 to 1200°C PT-100: -50.0 to 400.0°C
Resolution	1°C for (J,K), 0.1°C (PT-100)	
Indication Accuracy	±1% of FSD ± 1°C (FSD:- Full Scale Deflection)	

#### DISPLAY

Display	4 Digit, Single Line, 7 Segment LED, <b>0.8 inch in PID-911</b>
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#### DIMENSION:

##### PID-911

Size (mm)	96 (H) x 96 (W) x 40 (D) mm
Panel Cutout	92 (H) x 92 (W) mm

##### PID-711

Size (mm)	72 (H) x 72 (W) x 50 (D) mm
Panel Cutout	68 (H) x 68 (W) mm

### CONTROL ACTION

Control Mode	PID or ON-OFF
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### OUTPUT SPECIFICATION:

#### RELAY OUTPUT

Relay	1 Nos
Relay Type	1C/O (NO-C-NC)
Rating	10A (Resistive Load)

#### SSR OUTPUT

Output Signal	12V DC, 30mA DC (On - Off Condition)
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### POWER SUPPLY:

Supply Voltage	110V to 270V AC, 50-60Hz
Power Consumption (VA Rating)	4VA @ 230V AC MAX

### ENVIRONMENT CONDITION:

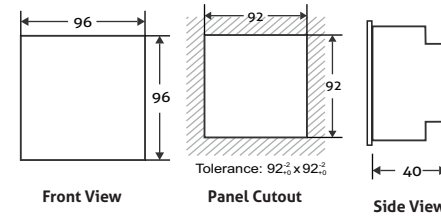
Operating Temp.	0°C to 55°C
Relative Humidity	UP to 95% RH (non-condensing)
Protection Level (As per request)	IP-65 (Front side) As per IS/IEC 60529 : 2001

### KEY OPERATION

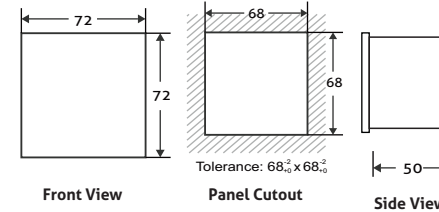
Key	Function
	<b>SET Key</b> (Long Press to Enter Set Point Menu)
	<b>UP Key</b> (To increase the value/navigate in menu)
	<b>Down Key</b> (To decrease the value/navigate in menu)
	<b>Enter Key</b> (To Enter the Menu / Exit the menu)
	<b>Long Press UP KEY</b> (To start AUTO TUNING)
	<b>Long Press DOWN KEY</b> (To enter parameter configuration menu)

### MECHANICAL DIMENSIONS

#### Dimensions for PID-911



#### Dimensions for PID-711



### INSTALLATION

#### For installing the meter

- Prepare the panel cutout with proper dimensions as shown above.
- Push the meter into the panel cutout. Secure the meter in its place by fitting the clamp on the rear side. Fit the clamps on both the sides.
- For proper sealing, tighten the screws evenly with required torque.

#### Terminal screw tightening torque:

0.68 Nm to 0.79 Nm (6.018ln-Lb to 6.992 ln-Lb)  
Screw clamp tightening torque: 0.1N-m (0.885 Lb-inch) in diagonally opposite location for optimum fitting.

#### SAFETY PRECAUTIONS :

All safety related conditions, symbols and instruction that appear in this operating manual or on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument.

If the equipment is not used in a manner specified by the manufacturer it might impair the protection provided by the equipment.

- Do not use the equipment if there is any mechanical damage
- Ensure that the equipment is supplied with correct voltage

If there is physical damage to the unit then do not use it.

Read complete instruction prior to installation and operation of the unit.

### Wiring Guidelines:

#### CAUTION :



- To prevent the risk of electric shock power supply to the equipment must be kept OFF while doing the wiring arrangement.
- Wiring shall be done strictly accordingly to the terminal layout with the shortest connection. Confirm that all connection are correct.

### INSTRUMENT CONFIGURATION

#### ERROR CONDITIONS

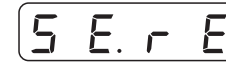
- If the display shows below message



It means Input **Sensor Not Connected** or any error with connected sensor.

In such case please check the sensor connections

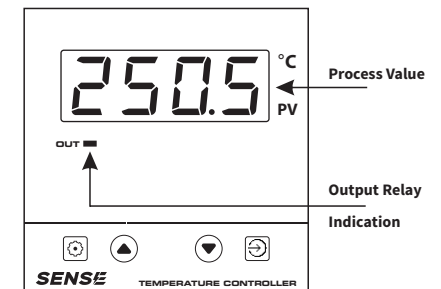
- If the display shows below message



This means Input **Sensor Reverse;**

In such case please check the sensor connections

### FRONT PANEL DESCRIPTION



### SET POINT MENU

Long press key to enter Set Point Menu

Menu Name

press SET key  
 SET Value

Long press Key to exit the menu

Using up & down key to change SET point  
Press the SET key it will store the latest SET Value

#### \*\* Important Note:

Range for J Type Input : 0 to 600°C  
Range for K Type Input : 0 to 1200°C  
Range for PT 100 Input : -50 to 400°C

\*Note: If the instruments stays in idle condition while inside the **Configuration Menu** for more than **30 seconds**, then it will automatically exit the configuration menu.

#### \*Installation Note:

It is been advised that the settings should be done by a professional, after going through user operating manual and after having understood the application.

### ORDERING CODE

Order Code	Technical Specifications
PID 911-R	RED Display Input: Thermocouple J/K or PT-100 2W/3W (Selectable) Size: 96x96mm, PID / ON-OFF Control, Supply: 100-270V AC
PID 711-R	RED Display Input: Thermocouple J/K or PT-100 2W/3W (Selectable) Size: 72x72mm, PID / ON-OFF Control, Supply: 100-270V AC
PID 711-W	WHITE Display Input: Thermocouple J/K or PT-100 2W/3W (Selectable) Size: 72x72mm, PID / ON-OFF Control, Supply: 100-270V AC

### BASIC PARAMETER SETTINGS

Long press key  
to enter the parameter setting menu

Password

press SET key  
 Enter Password 15

press SET key  
 Input Menu

press SET key  
 J/K or PT-100 Input Selection

press SET key  
 Mode Selection

press SET key  
 Heat / Cool

press SET key  
 Control Action

press SET key  
 PID / ON-OFF

Only if ON-OFF Control Action selected  
 Hysteresis

press SET key  
 Range : 1 to 100

press SET key  
 SET LOW LIMIT

Range as per Input Sensor

press SET key  
 SET HIGH LIMIT

press SET key  
 Range as per Input Sensor

Press key to Save & Exit the menu

### PID SETTING MENU

Long press key  
to enter the parameter setting menu

Password

press SET key  
 Enter Password 12

press SET key  
 Proportional Value

press SET key  
 Derivative Value

press SET key  
 Integration Value

press SET key  
 Derivative Value

press SET key

Derivative Value

press SET key  
 Derivative Value

press SET key  
 Cyclic Time

press SET key  
 Cyclic Time

press SET key  
 Manual Reset

press SET key  
 Manual Reset

Press key to Save & Exit the menu

### AUTO TUNE

The Auto-tuning function computes and sets the Proportional band (Pb), Integral time (It), Derivative time (dt), and cycle time automatically based on process characteristics.

If the power is turned off before auto-tuning is finished, it will be restarted when the power is turned back on.

Press key for 6 Seconds to Start / Stop PID Auto Tuning

### Designed & Manufactured in India

Product up-gradation is a continuous process. Hence, data in this manual is subject to change without prior notice. For latest information, please get in touch with our Sales Office.



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