



# PROCESS TEMPERATURE CONTROLLER

PTC-4202

## APPLICATIONS

Pharmaceutical Industries

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Extrusion Machinery

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Furnace & Boilers

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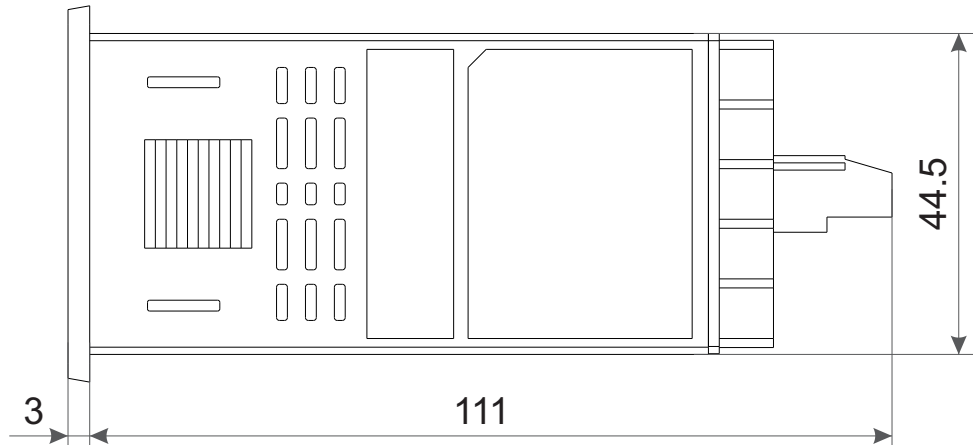
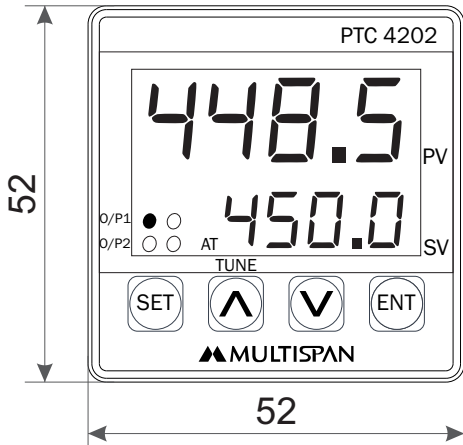
Ovens & Incubators

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Process Industry

# Mechanical Dimensions

## Body Dimensions

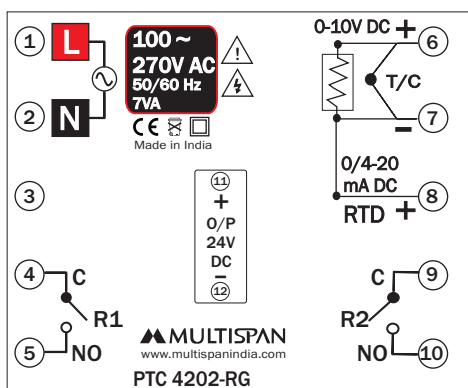


### FRONT VIEW

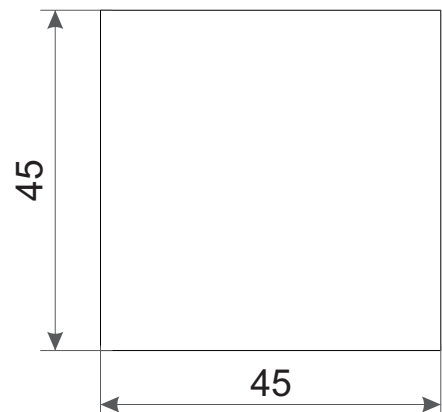
All dimensions are in mm

### RIGHT SIDE VIEW


## Connection Diagram



## Panel Cutout



# TECHNICAL DATA

<b>Input</b>	<b>Thermocouple</b>	J / K (Configurable)
	<b>RTD</b>	PT-100/ 2 Wire / 3 Wire (Configurable)
	<b>Analog</b>	0-10V DC, 0-20mA DC, 4-20mA DC (Configurable)
<b>Range</b>	<b>Thermocouple</b>	J: (0 to 600 °C), K: (0 to 1200 °C)
	<b>RTD</b>	PT-100: (-99 to 400 °C)/ PT.1: (-99.0 to 400.0 °C)
	<b>Analog</b>	(-999 to 9999)
<b>Output</b>	<b>Output 1</b>	Relay 1 C/O, 5A@230V AC For Resistive Load or SSR 12V DC,20mA ( 1 <sup>st</sup> Set point )
	<b>Output 2</b>	Relay 1 C/O, 5A@230V AC For Resistive Load or SSR 12V DC,20mA ( 2 <sup>nd</sup> Set point )
	<b>Output 3</b>	24V DC Transmitter Supply
<b>Control Action</b>	Heating : PID / ON-OFF ( Configurable ) Cooling : ON-OFF / Blower TP ( Configurable )	
<b>Power Supply</b>	100-270V AC, 50/60 HZ, Approx 7VA	
<b>Certification</b>		

**Table 1 (Input range)**

<b>J</b>	0 to 600 °C
<b>K</b>	0 to 1200 °C
<b>PT-100</b>	-99 to 400 °C
<b>PT.1</b>	-99.0 to 400.0 °C
<b>0-10V DC</b>	-999 to 9999
<b>4-20mA DC</b>	-999 to 9999
<b>0-20mA DC</b>	-999 to 9999

**Power Supply**

<b>Standard</b>	100-270V AC @ 50/60 Hz
<b>Optional</b>	24V DC
<b>Consumption</b>	7VA

**Display & Keys**

<b>Display</b>	<b>Upper:-</b> 4 Digit, 7 seg. 0.56" White LED Display
	<b>Lower:-</b> 4 Digit, 7 seg. 0.33" Green LED Display
<b>LED Status</b>	Relay Indication LED
4 Controlling Keys for configuration and operation SET, UP, DOWN, ENT	

Input	
Input Type	Thermocouple : J, K RTD : PT-100, PT.1 Analog : 0-10V DC 4-20mA DC 0-20mA DC
Display Range	Refer ( Table 1 )
Accuracy	± 1% of FSD
ADC Resolution	10 Bit
Display Resolution	Thermocouple :- 1 °C RTD :- For PT: 1 °C For PT.1: 0.1 °C
Sample Time	600 msec
Sample Rate For Analog I/P	0.1 Sec To 10 Sec (Configurable)
CJC Error	± 2 °C
Sensor Open	Thermocouple:- J, K, RTD:- PT, Analog:- 4 to 20mA ( Over )
Sensor Burnout Current	1.10uA
RTD Excitation Current	0.2mA
CMRR	>120 dB ( Typical )
Max Voltage	20V DC
Response Time	675mS

Output	
Control Output	
Control Type	ON-OFF,Auto tune PID
Proportional Band	0000 to 999.9
Integral Time	0000 to 9999
Derivative Time	0000 to 9999
Cycle Time For SSR and Relay	4 sec to 99 sec
Relay Control Output	
Relay	1 ( NO - C )
Rating	Relay 1: 5A @230V AC/ 28V DC Resistive Load  Relay 2: 5A @230V AC / 28V DC Resistive Load
SSR Control Output (Optional)	
Rating	12V DC @25mA

Environmental Characteristics	
Operating Temperature	0 to 55 °C
Storage Temperature	0 to 70 °C
Humidity	95% RH Non-condensing
Protection	IP 65 ( Front Side )

Mechanical Characteristics	
Mounting Type	Panel Mount
Dimension (HxWxD) mm	52 x 52 x 111
Panel Cutout (HxW) mm	45 x 45
Material	Enclosure Back Polycarbonate (PC) ABS
Terminal Screw Size	M3.5
Screw Torque (N.m)	1
Wire Gauge (AWG)	26-14
Weight (Approx) gms	Unpacked : 165 Packed : 195
Accessories	1 Pair of Clamps