



TEMPERATURE CONTROLLER

TC-221P

APPLICATIONS

Packaging Machinery

Extrusion Machinery

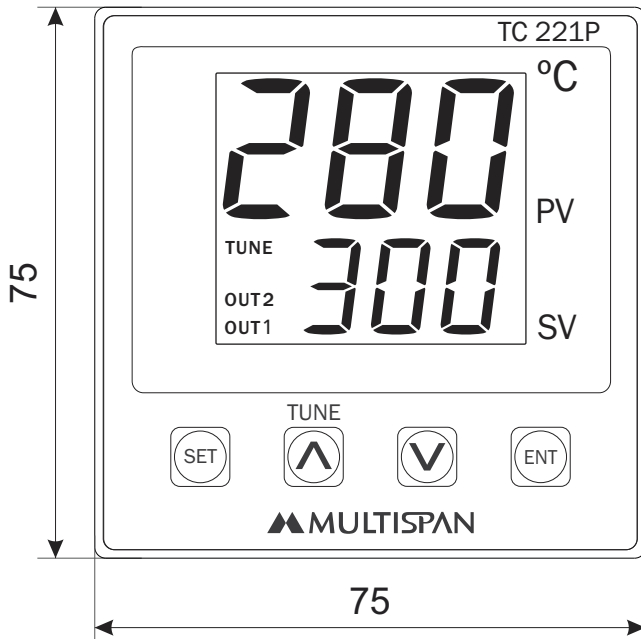
Furnace & Boilers

Ovens & Incubators

Food Industry

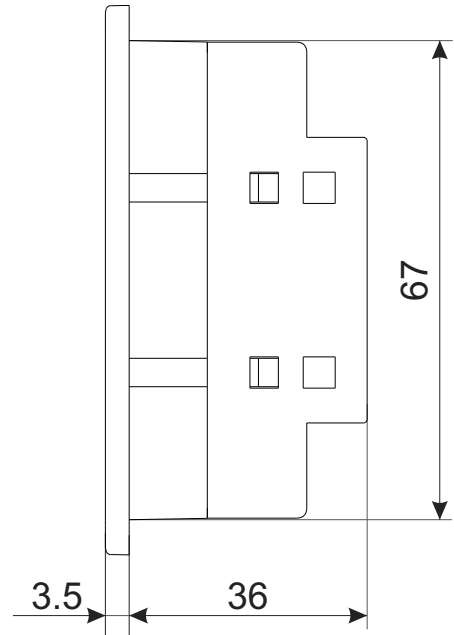
Mechanical Dimensions

Body Dimensions



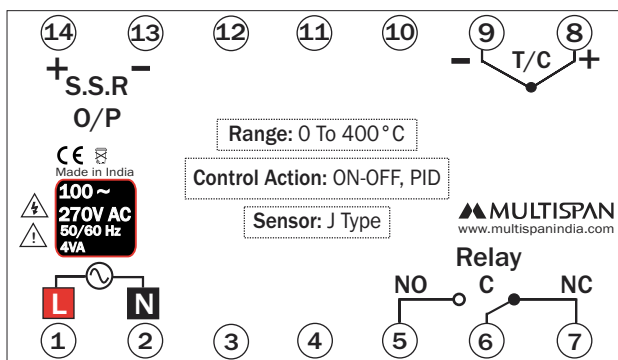
FRONT VIEW

All dimensions are in mm

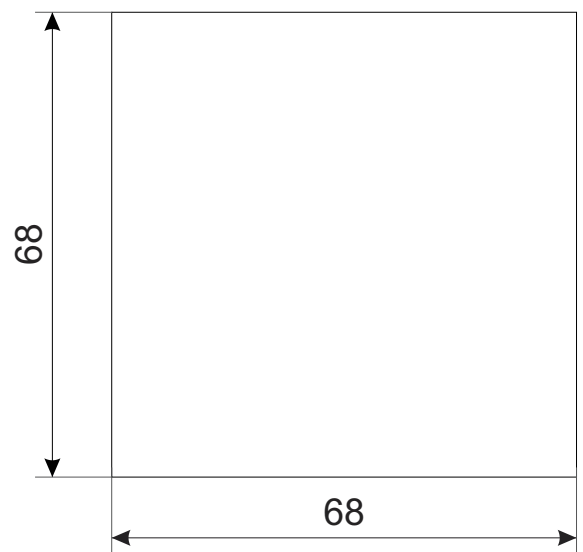


RIGHT SIDE VIEW

Connection Diagram



Panel Cutout



TECHNICAL DATA

Input Current	Thermocouple:- J / K (Configurable) RTD :- PT-100 3Wire /2Wire
Range	Thermocouple:- J: 0 - 400 °C, K: 0 to 500 °C RTD :- PT-100: -50 to 400 °C/ PT.1: -19.9 to 400.0 °C
Output	1 Relay 1 C/O, 5A, 230V AC & SSR 12V DC Parallel (1 Set point)
Control Action	PID / ON-OFF (Configurable)
Mode	Heating / Cooling (Configurable)
Power Supply	100-270V AC, 50/60 HZ
Certification	CE

Input

Input Type	Thermocouple : J, K RTD : PT-100, PT.1
Display Range	Refer (Table 1)
Accuracy	± 1% of FSD
ADC Resolution	10 Bits
Display Resolution	J/K,PT-100 = 1 °C PT.1 = 0.1 °C
Sample Rate	6 Sample / Sec
CJC Error	± 2 °C
Sensor Open	All Input
Sensor Burnout Current	1.10uA
RTD Excitation Current	0.2mA
CMRR	>120 db (Typical)
Input Impedance	>1M
Max Voltage	20V DC

Output

Control Output	
Control Type	On-Off,Auto Tune PID
Proportional Band	0.0 to 999.9
Integral Time	0 to 9999
Derivative Time	0 to 9999
Cycle Time For SSR For Relay	4 sec to 99 sec
Relay Control Output	
Relay	1 Nos.
Rating	5A @230V AC / 28V DC Resistive Load
SSR Control Output	
Rating	12V DC @30mA

Display (Table 1)

Process Value	Upper: 3 Digit 7 seg 0.80" Red / White LED Display
Set value	Lower: 3 Digit 7 seg 0.40" Green LED Display
Key	SET, UP, DOWN, ENT
LED Indication	Relay , SSR

Power Supply

Power Supply	100 to 270V AC, 50/60Hz
Optional	24V DC
Consumption	4VA

Table 1 (Sensor Range)

J	0 to 400°C
k	0 to 500°C
PT-100	-50 to 400°C,
PT.1	-19.9 to 99.9°C

Environmental Characteristics

Working Temperature	0 to 55°C
Storage Temperature	0 to 55°C
Relative Humidity	95% RH Non-condensing
Protection	IP 65 (Front Side)

Mechanical Characteristics

Mounting Type	Panel Mount
Dimension (HxWxD) mm	75 x 75 x 36
Panel Cutout (HxW) mm	45 x 45
Material	Front Enclosure
	Polycarbonate (PC) ABS
Terminal Screw Size	M3.5
Screw Torque (N.m)	0.5
Wire Guage (AWG)	26-14
Weight (Approx) gms	Unpacked : 115 Packed : 145
Accessories	1 Pair of Mounting Clamps