



TEMPERATURE CONTROLLER

TC-421P

APPLICATIONS

Packaging Machinery

Extrusion Machinery

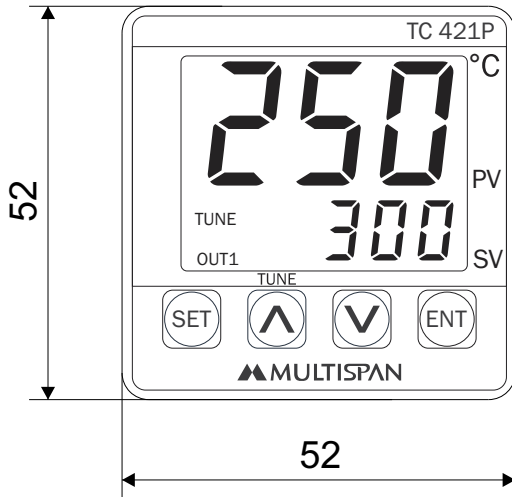
Furnaces & Boilers

Ovens & Incubators

Food Industry

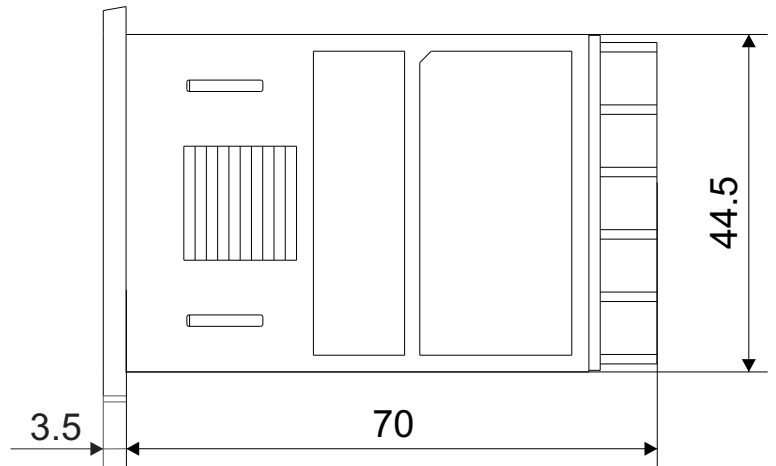
Mechanical Dimensions

Body Dimensions



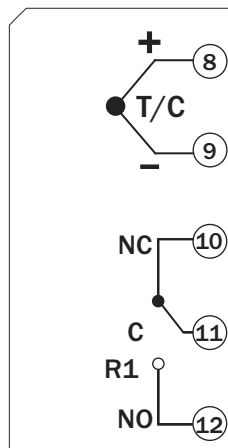
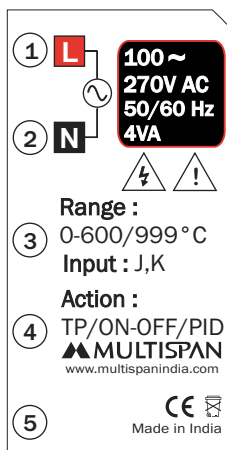
FRONT VIEW

All dimensions are in mm

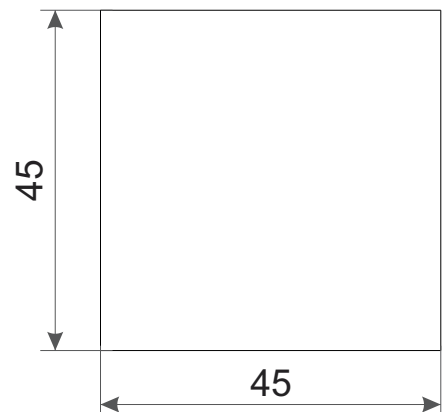


RIGHT SIDE VIEW

Connection Diagram



Panel Cutout



TECHNICAL DATA

Input Current	J/K
Range	J: 0 to 600° C ,k: 0 to 999° C
Output	1 Relay 1 C/O, 10A 230V AC & SSR 12V DC Parallel (1 Set point)
Control Action	PID /TP / ON-OFF (Configurable)
Mode	Heating /Cooling/ Alarm (Configurable)
Power Supply	100-270V AC, 50/60 HZ

Input	
Input Type	Thermocouple : J,K
Display Range	Refer (Table 1)
Accuracy	± 1% of FSD
ADC Resolution	10 Bits
Display Resolution	Thermocouple : 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, TP
Proportional Band	0.0 to 99.9
Integral Time	0 to 999
Derivative Time	0 to 999
Cycle Time For SSR For Relay	4 sec to 99 sec
Relay Control Output	
Relay	1 Nos.
Rating	10A @230V AC / 28V DC Resistive Load
SSR Control Output	
Rating	12V DC @30mA

Display (Table 1)	
Process Value	Upper: 3 Digit 7 seg 0.63" Red / White LED Display
Set value	Lower: 3 Digit 7 seg 0.30" Green LED Display
Key	SET, INC, DEC, ENT

Table 1 (Sensor Range)	
J	0 to 600° C
k	0 to 999° C

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

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	52 x 52 x 70	
Panel Cutout (HxW) mm	45 x 45	
Material	Body	Polycarbonate (PC)
Terminal Screw Size	M3.5	
Screw Torque (N.m)	0.5	
Wire Gauge (AWG)	26-14	
Weight (Approx) gms	Unpacked : 115 Packed : 145	
Accessories	1 Mounting Clamp	