



TEMPERATURE CONTROLLER

TC-49

APPLICATIONS

Packaging Machinery

Extrusion Machinery

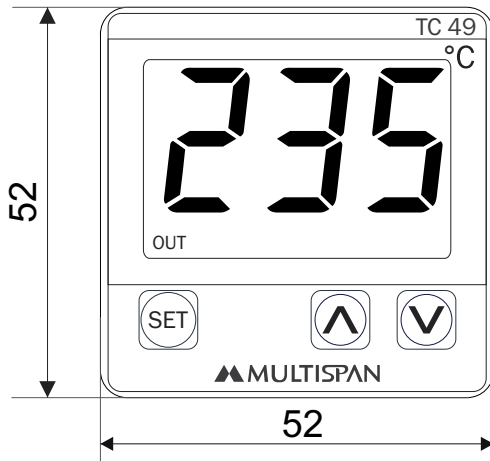
Furnaces & Boilers

Ovens & Incubators

Food Industry

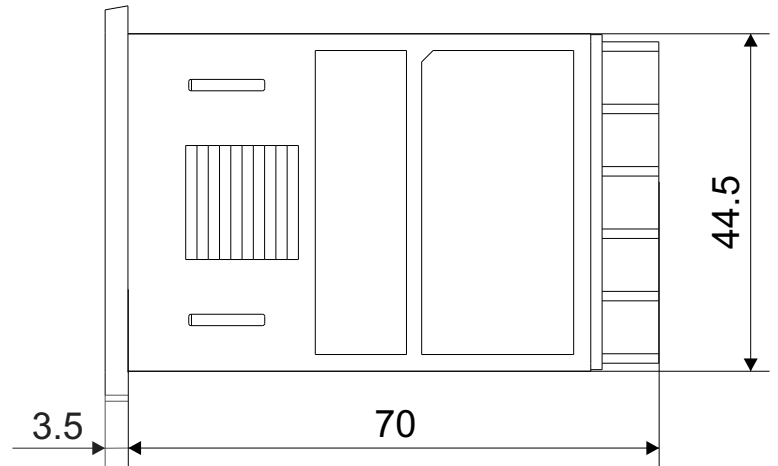
Mechanical Dimensions

Body Dimensions



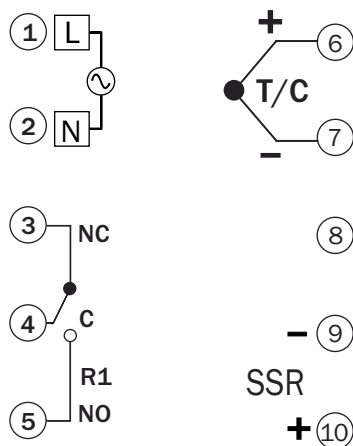
FRONT VIEW

All dimensions are in mm

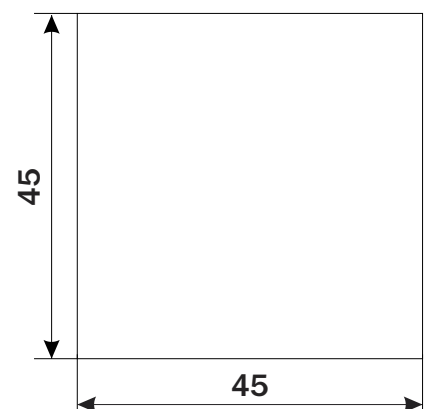


RIGHT SIDE VIEW

Connection Diagram



Panel Cutout



TECHNICAL DATA

Input	J / K or PT-100 2W/3W (Factory set)
Range	J: 600 °C , K: 999 °C PT-100 : -50 °C to 400 °C
Output	1 Relay 1 C/O, 5A, 230V AC (Resistive Load) & SSR Drive O/P 12V DC, 20mA (Parallel to Relay)
Control Action	TP / ON-OFF (Factory set)
Power Supply	100-270V AC, 50/60 Hz

Input

Input Type	Thermocouple : (J, K) or PT-100
Display Range	Refer (Table 1)
Accuracy	± 1% of FSD
ADC Resolution	10 Bit
Display Resolution	Thermocouple : 1 °C RTD : 1 °C
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 , TP
Relay Control Output	
Relay	1 Nos.
Rating	5A @230V AC / 28V DC Resistive Load
SSR Control Output	
Rating	12V DC @30mA

Table 1 (Sensor Range)

J	0 to 600 °C
K	0 to 999 °C
PT-100	-50 to 400 °C

Power Supply

Standard	100 - 270V AC, 50/60Hz
Optional	24V DC
Consumption	4VA

Display & Keys

Display	3 Digit 7 seg 0.8", RED/WHITE LED Display with output indicator
Keys	SET, INC, DEC

Environmental Characteristics

Working Temperature	0 to 55 °C
Storage Temperature	0 to 55 °C
Relative Humidity	95% RH Non-condensing
Warm up time	5 minutes

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 : 110 Packed : 140
Accessories	1 Mounting Clamp