



PROCESS TEMPERATURE CONTROLLER

PTC-1202A-M1

APPLICATIONS

Pharmaceutical Industries

Extrusion Machinery

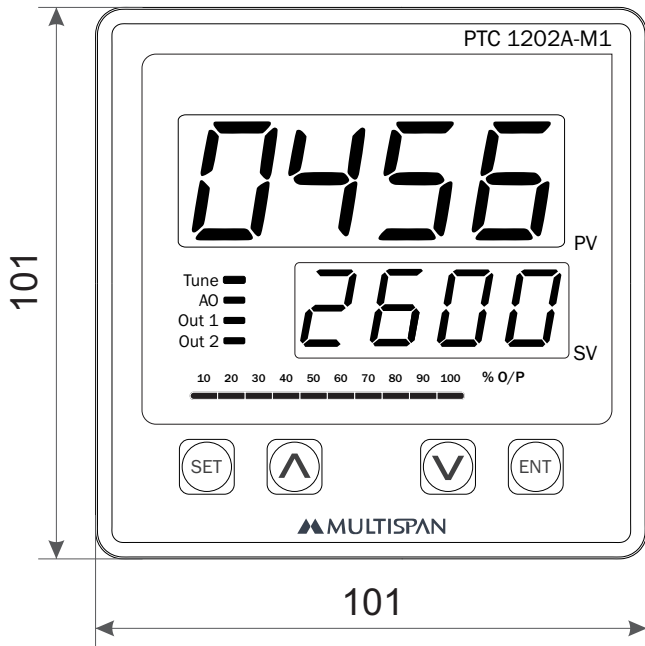
Furnace & Boilers

Ovens & Incubators

Process Industry

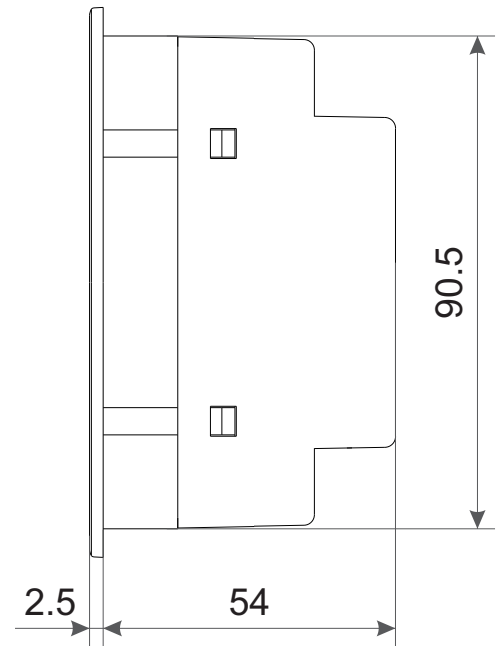
Mechanical Dimensions

Body Dimensions



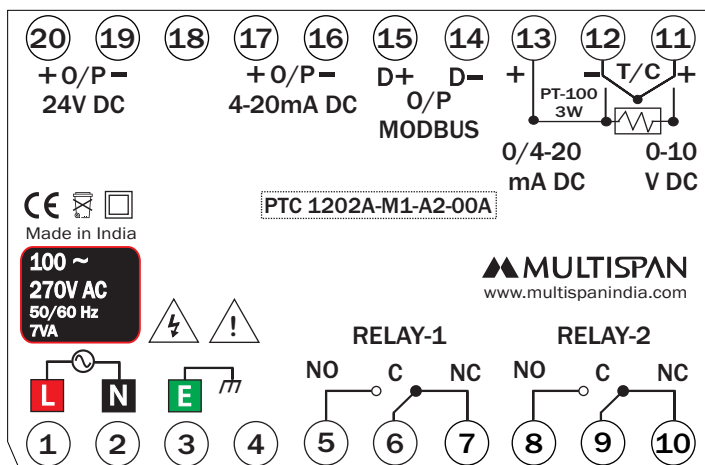
FRONT VIEW

All dimensions are in mm

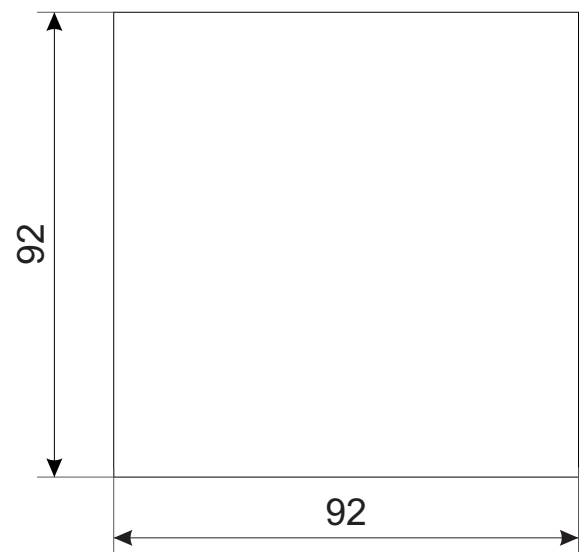


RIGHT SIDE VIEW

Connection Diagram



Panel Cutout



TECHNICAL DATA

Input	Thermocouple	J / K (Configurable)
	RTD	PT-100 / 2 Wire / 3 Wire (Configurable)
	Analog	0-10V DC, 0-20mA DC, 4-20mA DC (Configurable)
Range	Thermocouple	J: (0 to 600 °C), K: (0 to 1200 °C)
	RTD	PT-100: (-99 to 400 °C)/ PT.1: (-99.9 to 400.0 °C)
	Analog	(-1999 to 9999)
Output	Output 1	Relay 1 C/O, 5A@230V AC For Resistive Load or SSR 12V DC,20mA
	Output 2	Relay 1 C/O, 5A@230V AC For Resistive Load or SSR 12V DC,20mA
	Output 3	0 to 10V DC / 4 to 20mA DC (Any one factory set) Controlling or Retrans. (Selectable)
	Output 4	RS-485 RTU MODBUS Communication Protocol
	Output 5	24V DC Transmitter supply
Control Action		Heating : PID / ON-OFF (Configurable) Cooling : ON-OFF / Blower TP (Configurable)
Power Supply		100-270V AC, 50/60 HZ, Approx 7VA
Certification		CE

Table 1 (Input range)

J	0 to 600 °C
K	0 to 1200 °C
PT-100	-99 to 400 °C
PT.1	-99.9 to 400.0 °C
0-10V DC	-1999 to 9999
4-20mA DC	-1999 to 9999
0-20mA DC	-1999 to 9999

Power Supply

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

Display & Keys

Upper:- 4 Digit, 7 seg. 0.8" RED LED Display
Lower:- 4 Digit, 7 seg. 0.56" White LED Display
SET , INC , DEC , ENT

Communication

Type	RS 485
Protocol	MODBUS RTU
Baud Rate	2400, 4800, 9600, 19200 ,38400
Isolation	2500 V _{RMS} Isolation as per UL 1577

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	12 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	2 Nos, 1 C/O (NO-C-NC)	
Rating	Relay 1: 5A @230V AC/ 30V DC Resistive Load Relay 2: 5A @230V AC / 30V DC Resistive Load	
SSR Control Output (Optional)		
Rating	12V DC @20mA	
Analog Output (Controlling or Retrans.) Selectable		
Current	4-20mA DC	Factory Set Any one
Voltage	0-10V DC	

Environmental Characteristics

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

Mechanical Characteristics

Mounting Type	Panel Mount
Dimension (HxWxD) mm	101 x 101 x 54
Panel Cutout (HxW) mm	92 x 92
Material	Front Enclosure Polycarbonate (PC) ABS
Terminal Screw Size	M3.5
Screw Torque (N.m)	1
Wire Gauge (AWG)	26-14
Weight (Approx) gms	Unpacked : 260 Packed : 315
Accessories	1 Pair of Clamps