

PROCESS TEMPERATURE CONTROLLER PTC L12A-M1



TECH SPECS

Model	PTC L12A-M1	
Dimension (HxWxD) mm	96 x 96 x 54	
Input		Thermocouple:- J / K (Configurable) RTD :- PT-100/3Wire (Configurable)
	Analog	0-10V DC, 0-20mA DC, 4-20mA DC (Configurable)
Range		Thermocouple:- J: 0 - 600°C, K: 0 to 1200°C RTD :- PT-100: -99 to 400°C/ PT.1: -99.9 to 400.0°C
	Analog	-999 to 9999
Output	Output 1	1 Relay 1 C/O, 5A@230V AC For Resistive Load or SSR 12V DC,20mA
	Output 2	1 Relay 1 C/O, 5A@230V AC For Resistive Load
	Output 3	0 to 10 / 4 to 20mA DC Controlling & Retrans.
	Output 4	RS-485 RTU MODBUS Communication Protocol
Control Action	PID / ON-OFF (Configurable)	
Power Supply	100-250V AC, 50/60 Hz, Approx 8VA	
Certification		

APPLICATIONS

Pharmaceutical Industries

Extrusion Machinery

Furnace & Boilers

Ovens & Incubators

Process Industry

Technical Specifications

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 Bits
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
Sensor Burnout Current	1.10uA
RTD Excitation Current	0.2mA
CMRR	>120 dB (Typical)
Input Impedance	>1MΩ
Max Voltage	20V DC
Response Time	675mS

Output	
Control Output	
Control Type	Auto tune PID,ON-OFF
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	2Nos, 1C/O
Rating	Relay 1: 10A @230V AC/ 28V DC Resistive Load Relay 2: 10A @230V AC / 28V DC Resistive Load
SSR Control Output	
Rating	12V DC @20mA
Analog Output (Controlling/Retrans.) Factory Set Any one	
Current	4-20mA DC
Voltage	0-10V DC

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	-999 to 9999
4-20mA DC	-999 to 9999
0-20mA DC	-999 to 9999

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

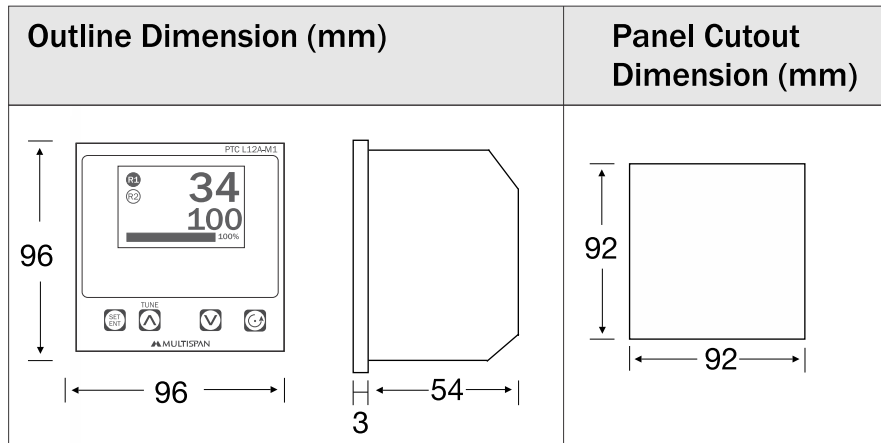
Power Supply	
Standard	100 - 250V AC @ 50/60 Hz
Optional	24V DC
Consumption	8VA

Display & Keys	
Display	128 x 64 Bit Graphical LCD
4 controlling keys for configuration and operation SET/ENT, UP, DOWN, EXIT	

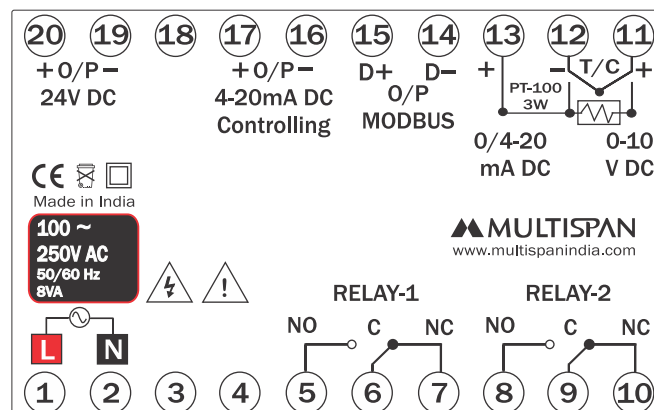
Environmental	
Operating Temperature	0 to 55 °C
Storage Temperature	0 to 70 °C
Humidity	95% RH Non-condensing
Protection	IP 65 (Front Side)

Physical	
	PTC L12A-M1
Mount	Panel
Enclosure	Molded ABS
Front Bezel (mm)	96 x 96
Panel cutout (mm)	92 x 92
Depth behind panel (mm)	54
Accessories	1 pair of Mounting clamp
Terminal Cable Size	Barrier Type terminal Cable Size (2.5 mm ²)

Mechanical Dimension



Connection Diagram



Multispan reserves the right to change specifications without prior notice. Printing and typographical errors reserved.
Product improvement and upgrade is a constant procedure. So for more updated operating information & support contact us.

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