



48 x 48mm

Features :

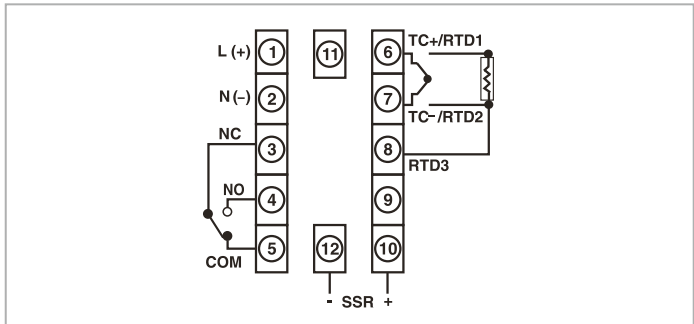
- ▶ 3 digits, 7 segment LED single display
- ▶ TC/ RTD input
- ▶ PID/ ON - OFF control
- ▶ Auto tuning/ Self tuning
- ▶ Single set point
- ▶ °C/°F selectable
- ▶ Field selectable control output: Relay or SSR

Certifications : CE

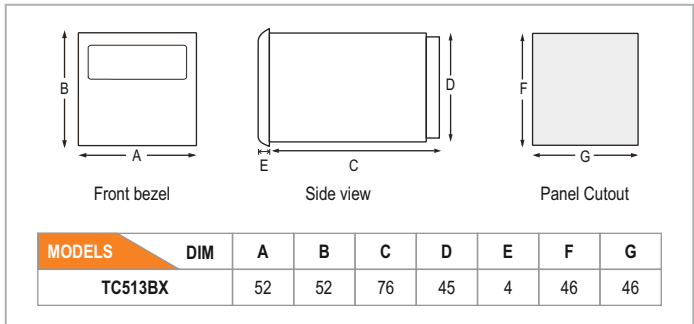
Technical specifications

Display specifications	
Display	3 digits, 7 Segment LED single display
Height of display	10 mm
LED indication	R: Control output ON
Input specifications	
Inputs	Thermocouple (J, K, T, R, S)/ RTD (PT100)
Resolution	Fixed 1°
Indication accuracy	For J, K & T inputs: 0.25% of F.S. $\pm 1^{\circ}\text{C}$ For R & S inputs: 0.5% of F.S. $\pm 2^{\circ}\text{C}$ (20 min of warm up time for TC inputs) For RTD inputs: 0.1% of F.S. $\pm 1^{\circ}\text{C}$ (F.S. = Full scale)
Temperature unit	$^{\circ}\text{C}/^{\circ}\text{F}$ selectable
Input filter (FTC)	0.2 to 10.0 sec
Sampling time	250 ms
Output specifications	
Relay contact (SPDT)	Main Output: NO: 10A 250 VAC/ 24 VDC NO/ NC: 5A/ 5A 250 VAC/ 24 VDC
SSR drive (Voltage pulse)	12 VDC, 30 mA
Functional specifications	
Control action	1) PID Control with auto or self tuning 2) ON-OFF control
Proportional band (P)	1.0 to 400.0 $^{\circ}\text{C}$
Integral time (I)	0.0 to 99.9 min
Derivative time (D)	0 to 999 sec
Cycle time	0.1 to 99.9 sec
Hysteresis width	0.1 to 99.9
Manual reset value	- 19.9 to 19.9 $^{\circ}\text{C}/^{\circ}\text{F}$
Auxiliary supply specifications	
Supply voltage	90 to 270 VAC/ DC (50/ 60Hz)
Power consumption	6 VA max @ 230 VAC
Environment specifications	
Temperature	Operating: 0 $^{\circ}\text{C}$ to 50 $^{\circ}\text{C}$ (32 to 122 $^{\circ}\text{F}$); Storage: 20 $^{\circ}\text{C}$ to 75 $^{\circ}\text{C}$ (- 4 to 167 $^{\circ}\text{F}$)
Humidity (non - condensing)	95% RH
Mechanical specifications	
Mounting	Panel
Weight	111 gms

Terminal connections



Dimensions (All are in mm)



Compliance

Applicable EMI / EMC Standards		
Product Standard : IEC 61326-1		
Category		Standards Compliance
ESD Immunity	IEC 61000-4-2	Level III
Surge Immunity	IEC 61000-4-5	+/- 2 kV common mode, +/- 1 kV differential mode
Radiated Susceptibility	IEC 61000-4-3	Level III, 80 to 1000MHz Level II, 1.4GHz to 2GHz Level I, 2GHz to 2.7GHz
Conducted Susceptibility	IEC 61000-4-6	Level II
Voltage Dips and Interruptions	IEC 61000-4-11	Dips : 0% residual voltage / 1 cycle (Criteria B), 40% residual voltage / 10 cycles 50Hz / 12 cycles 60Hz (Criteria C)70% residual voltage / 25 cycles50Hz / 30 cycles 60Hz (Criteria C) Interruptions : 0% residual voltage / 250 cycles 50Hz / 300 cycles 60Hz (Criteria C)
Conducted Emission	CISPR-11	
Radiated Emission	CISPR-11	
Electrical Fast Transient	IEC 61000-4-4	Level III

Ordering information

Product code	Output		Supply voltage	Certification
	Relay	SSR		
TC513BX	RELAY (10A)	SSR (12 VDC)	90 to 270 VAC/ DC	- - -
TC513BX-CE	RELAY (10A)	SSR (12 VDC)	90 to 270 VAC/ DC	CE