



48 x 48mm

### Features :

- ▶ 4+4 digits, 7 segment LED dual display
- ▶ Auto tune/ Self tune PID
- ▶ PID/ ON - OFF control
- ▶ TC/ RTD input
- ▶ Two set points
- ▶ °C/°F selectable
- ▶ Field selectable control output (Relay or SSR)
- ▶ Dwell timer
- ▶ IDM applicable
- ▶ Auxiliary output: Relay

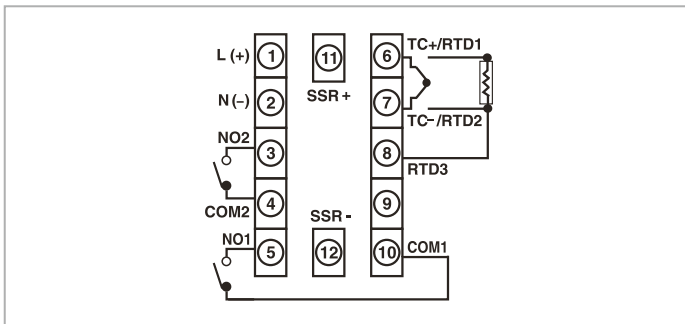
Certifications:

## Technical specifications

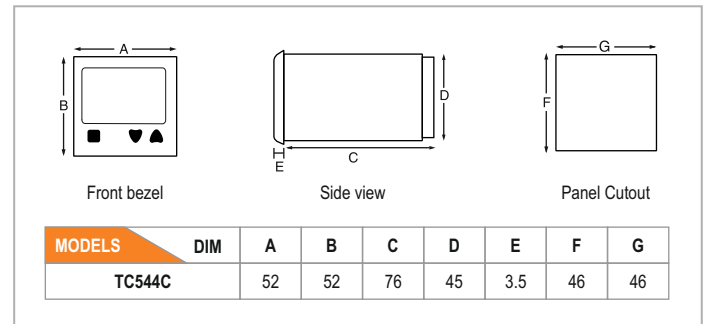
Display specifications	
Display	4+4 digits, 7 Segment LED dual display
Height of display	Upper display: 15.3 mm, Lower display: 8 mm
LED indication	1. Output 1 ON      T: Auto tune 2. Output 2 ON      S: Dwell timer
Input specifications	
Inputs	Thermocouple (J, K, T, R, S)/ RTD (PT100)
Resolution	0.1 / 1° for TC/ RTD input (fixed 1° for R & S type TC input)
Indication accuracy	For J, K & T inputs: 0.25% of F.S. ±1° For R & S inputs: 0.5% of F.S. ±2° (20 min of warm up time for TC inputs) For RTD inputs: 0.1% of F.S. ±1° (F.S. = Full scale)
Temperature unit	°C/°F selectable
Input filter (FTC)	0.2 to 10.0 sec
Sampling time	250 ms
Output specifications	
<b>Control output</b> (Relay or SSR user selectable)	
Relay contact (SPST)	5A resistive @ 230 VAC/ 30 VDC
SSR drive (Voltage pulse)	12 VDC, 30 mA
<b>Auxiliary output</b>	
Relay contact (SPST)	5A resistive @ 230 VAC/ 30 VDC
Functional specifications	
Control action	1) PID Control with auto tuning 2) ON-OFF control
Proportional band (P)	1.0 to 400.0°C
Integral time (I)	0 to 9999 sec
Derivative time (D)	0 to 9999 sec
Cycle time	0.1 to 99.9 sec
Hysteresis width	0.1 to 99.9°
Manual reset value	-19.9 to 19.9°
<b>Heat- cool</b>	
Control action	PID
Proportional band-cool	0.0 to 400.0°
Cycle time-cool	0.1 to 99.9 sec
Dead band	Programmable from set point low limit to set point high limit.
<b>Settings for alarm output</b>	
Modes	Deviation, Absolute
Hysteresis	0.1 to 99.9°

Auxiliary supply specifications	
Supply voltage	90 to 270 VAC/ DC (50/ 60Hz)
Power consumption	6 VA max @ 230 VAC
Environment specifications	
Temperature	Operating: 0°C to 50°C; Storage: -20°C to 75°C
Humidity (non - condensing)	95% RH
Mechanical specifications	
Mounting	Panel
Weight	116 gms

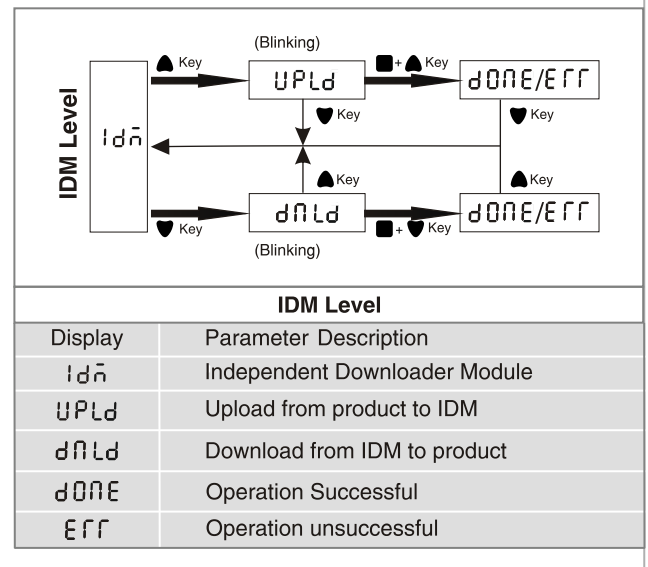
## Terminal connections



## Dimensions (All are in mm)



## Independent downloader module (IDM)



## 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

Applicable EMI / EMC Standards		
Product Standard : IEC 61326-1		
Category		Standards Compliance
Voltage Dips and Interruptions	IEC 61000-4-11	<b>Dips</b> : 0% residual voltage / 1 cycle (Criteria B), 40% residual voltage / 10 cycles 50Hz / 12 cycles 60Hz (Criteria C) 70% residual voltage / 25 cycles 50Hz / 30 cycles 60Hz (Criteria C) <b>Interruptions</b> : 0% residual voltage / 250 cycles 50Hz / 300 cycles 60Hz (Criteria C)
Conducted Emission	CISPR-11	Class A (150KHz to 30MHz)
Radiated Emission	CISPR-11	Class A (30MHz to 1GHz)
Electrical Fast Transient	IEC 61000-4-4	Level III

## Ordering information

Product code	Output 1		Output 2	Supply voltage	Certification
	Relay	SSR			
<b>TC544C</b>	RELAY (5A)	SSR (12 VDC)	RELAY (5A)	90 to 270 VAC/ DC	<b>CE</b>