







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

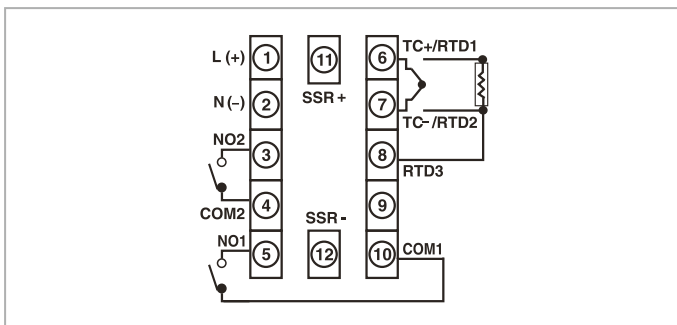
Certifications :  ,   

Technical specifications

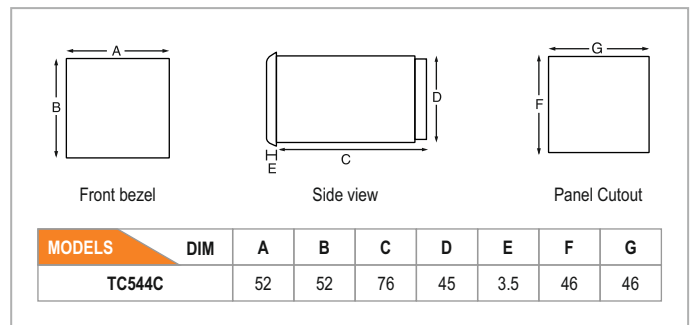
| Display specifications | |
|--|--|
| Display | 4+4 digits, 7 Segment LED dual display |
| Height of display | Upper display : 15.3mm, Lower display : 8mm |
| LED indication | 1. Output 1 ON T : Auto tune 2. Output 2 ON S : Dwell timer |
| Input specifications | |
| Inputs | Thermocouple (J, K, T, R, 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 10.0sec |
| Sampling time | 250 ms |
| Output specifications | |
| Control output (Relay or SSR user selectable) | |
| Relay contact (SPST) | 5A resistive @ 230V AC / 30V DC |
| SSR drive (Voltage pulse) | 12V DC, 30 mA |
| Auxiliary output | |
| Relay contact (SPST) | 5A resistive @ 230V AC / 30V DC |
| 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° |
| Heat-cool | |
| 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. |
| Settings for alarm output | |
| Modes | Deviation, Absolute |
| Hysteresis | 0.1 to 99.9° |

| Auxiliary supply specifications | |
|---------------------------------|--|
| Supply voltage | 90 to 270V AC / DC (50 / 60Hz) |
| Power consumption | 6 VA max @ 230V AC |
| 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 |

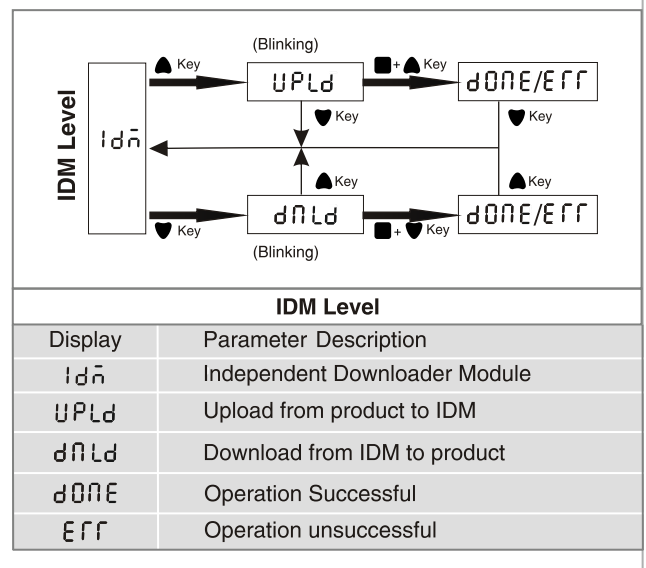
Terminal connections



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 | Dips : 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) Interruptions : 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 | | | |
| TC544C-CU | RELAY (5A) | SSR (12V DC) | RELAY (5A) | 90 to 270V AC / DC |   |
| TC544C-2-CU | RELAY (5A) | SSR (12V DC) | RELAY (5A) | 24V DC |   |