



48 x 48 mm

Features :

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

Certifications :

Display specifications

Digits	4+4 digits, 7 segment LED dual display
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 inputs (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 input : 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

Control output (Relay or SSR user selectable)	
Relay contact (SPST)	5A resistive @ 250V AC / 30V DC
SSR drive (Voltage pulse)	12V DC, 50 mA
Auxiliary output	
Relay contact (SPST)	5A resistive @ 250V 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°
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°

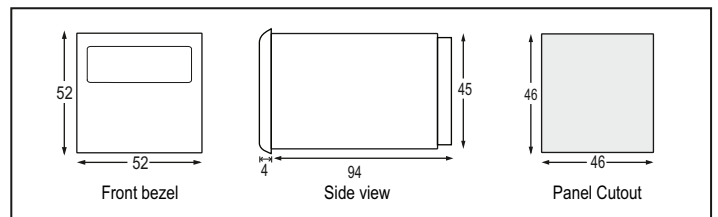
Auxiliary supply specifications

Supply voltage	90 to 270V AC / DC (50 / 60Hz) OPTIONAL - 24V AC / DC, ±10%
Power consumption	6 VA max @ 230V AC

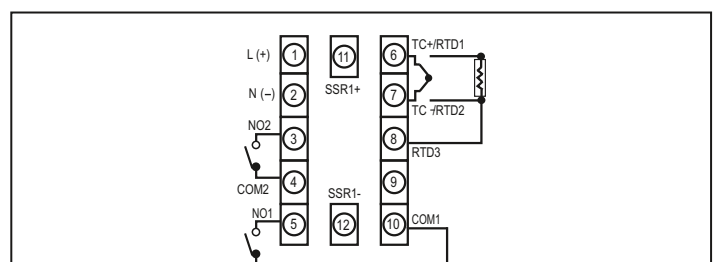
Environmental specifications

Temperature	Operating : 0°C to 50°C Storage : -20°C to 75°C
Humidity (non - condensing)	95% RH
Weight	142 gms

Dimensions (All are in mm)



Terminal connections



Cable size (AWG) : 16-13 ; Stud hole for lug (inch) : 0.137 ; Tightening torque (Lb-inch) : 7

Cable size (mm²) : 1.5-2.5 ; Stud hole for lug (mm) : 3.5 ; Tightening torque (N-m) : 0.8

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 cycles 50Hz / 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 1	Output 2	Supply voltage	Certification
TC544A	RELAY	SSR (12V DC)	90 - 270V AC / DC	CE
TC544A-CU-RoHS	RELAY	SSR (12V DC)	90 - 270V AC / DC	CE, RoHS
TC544A-24V	RELAY	SSR (12V DC)	24V DC	CE

Accessories (Optional)

Standard SELEC accessories that can be used with this product.

Adapter plate

- 1) AP7248 : Plastic adapter plate, used to mount 1 / 16 DIN (cutout size 48 x 48) Instrument into existing (72 x 72) cutout size.
- 2) AP9648 : Plastic adapter plate, used to mount 1 / 16 DIN (cutout size 48 x 48) Instrument into existing (96 x 96) cutout size.
- 3) AP9672 : Plastic adapter plate, used to mount 72 x 72mm size instrument into existing (96 x 96) cutout size.
- 4) AP4896-4848-G-C : Plastic adapter plate, used to mount 1 / 16 DIN (cutout size 48 x 48) Instrument into existing (48 x 96) cutout size.

Mounting accessories (Supplied with units)

For TC544 : 48 X 48 Collar clamp ACL4802

Input sensor ranges (For TC / RTD inputs)

Sensor type	Resolution	Ranges	
		1	0.1
PT100	°C	-150 to 850	-150 to 850
	°F	-238 to 1562	-199 to 999
J	°C	-199 to 750	-199 to 750
	°F	-328 to 1382	-199 to 999
K	°C	-199 to 1350	-199 to 999
	°F	-328 to 2462	-199 to 999
T	°C	-199 to 400	-199 to 400
	°F	-328 to 750	-199 to 750
R & S	°C	0 to 1750	N/A
	°F	32 to 3182	N/A