

Control

Altech is pleased to offer a variety of process control equipment comprised of:

- Temperature Controllers
- Process Indicators
- Counters
- Rate Indicators

These components are designed to take inputs from a variety of sources and allow for the precise controlling of functions in an eased manner.



Applicable EMI / EMC Standards

Product Standard: IEC 61326-1

Products	Electromagnetic Compatibility	
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 50 Hz / 12 cycles 60 Hz (Criteria C) 70% residual voltage / 25 cycles 50 Hz / 30 cycles 60 Hz (Criteria C) Interruptions: 0% residual voltage / 250 cycles 50 Hz / 300 cycles 60 Hz (Criteria C)
Conducted Emission	CISPR-11	
Radiated Emission	CISPR-11	
Electrical Fast Transient	IEC 61000-4-4	Level II

Single Display, 1 Output Temperature Controllers 7 Segment LED Display

FEATURES

- 3 digits, 7 segment LED single display
- TC / RTD Inputs
- PID, ON-OFF Control
- Single Setpoint
- °C / °F
- Field selectable Control Output (Relay or SSR)



TC513AX

48 x 48 mm

TC203AX

72 x 72 mm

TC303AX

96 x 96mm

CAT. NO.

Display	
Display Type	7 Segment LED Display
Digits	1 row of 3 digits
Resolution	Fixed 1 Degree
Supply Specification	
	85-270 V AC/DC (50/60Hz)
Input Specification	
Input Measurement	Thermocouple (J,K,T,R,S) / RTD (Pt100)
Sampling Time	0.25 sec
Input Filter (FTC)	0.2 to 10.0 sec
Output Specification	
Main Output	Selectable- SPDT- 10A @250V AC / 30V DC, resistive OR SSR Drive 12V DC, 50mA
Auxiliary Output	-
Functional Specification	
Control Action	1) PID Control with Auto Tuning 2) ON-OFF Control
PID	Proportional Band (P): 0-400° Integral Time (I): 0-99.9 sec Derivative Time (D): 0-999 sec
Alarm Mode	-
Hysteresis	0.1-99.9°
Temperature Unit	°C / °F
Cycle Time	0.1 to 99.9 sec.
Manual Reset Value	-19.9° to 19.9°
Power Consumption	5VA max @230V AC1
Set Points	1
Accuracy	
J, K,T INPUTS*	0.25% of Full Scale ±1°
R, S INPUTS*	0.5% of Full Scale ±2°
RTD INPUT	0.1% of Full Scale ±1°
Environmental Specification	
Operating Temperature	0 to 50°C (32 to 122°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)
Humidity (Non-Condensing)	95% Relative Humidity
Weight	See dimensions on next page

Ordering Information

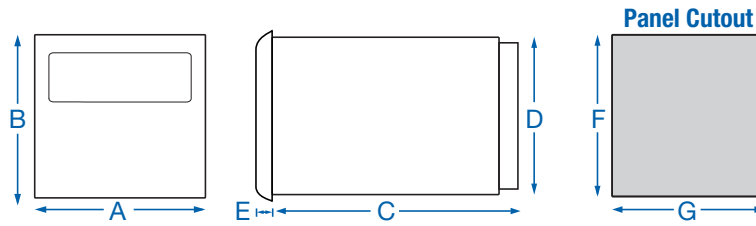
Part No.	Control Output	Supply Voltage	CE	RoHS	UL US
TC513AX-CU	10A Relay or 12V DC SSR	85 - 270V AC/DC	●	●	●
TC203AX-CU	10A Relay or 12V DC SSR	85 - 270V AC/DC	●	●	●
TC303AX-CU	10A Relay or 12V DC SSR	85 - 270V AC/DC	●	●	●

Mounting Accessories (supplied with units)

For TC513 : 48 X 48 Collar clamp ACL4802

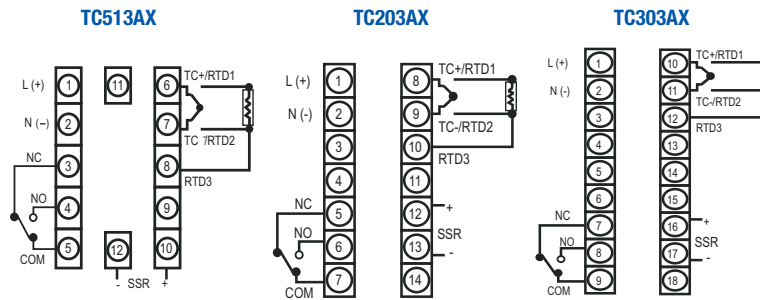
For TC203/TC303 : Clamp side with screw assembled

DIMENSIONS



	A	B	C	D	E	F	G	Weight
TC513AX	52	52	94	45	4	46	46	129 grams (.3 lbs)
TC203AX	72	72	83.7	67	4.5	69	69	180 grams (.4lbs)
TC303AX	96	96	73	90.5	5	92	92	240 grams (.52lbs)

TERMINAL CONNECTIONS



Note : NC Contact Valid for TC303AX

Input Sensor Ranges

Sensor Type	Resolution	Ranges 1
Pt100	°C	-150 to 850
	°F	-199 to 999
J	°C	-199 to 750
	°F	-199 to 999
K	°C	-199 to 999
	°F	-199 to 999
T	°C	-199 to 400
	°F	-199 to 750
R and S	°C	0 to 999
	°F	32 to 999

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 x72mm 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.