

ATC 500 Series

1/16 din Advanced, Full Featured PID Temperature Controller



Technical Specifications:

Display

Digits 4 digit, 7 segment LED Dual Display
Height of Upper Display: 0.3785"
Height of Lower Display: 0.2720"

LED Indications Relay On, Alarm, Manual Mode, Tune

Input Specifications

Inputs: Thermocouple (J,K,T,R,S,C,E,B,N,L,U,W)
Platine II, RTD (Pt100)
DC Analog Inputs (-5 to 56mv, 0 to 10v,
0 to 20 ma)

Sampling Time: 200 ms

Input Filter (FTC) 0.2 to 10.0 sec

Resolution: 1/0.1 deg for TC/RTD only
(Fixed 1 deg resolution for R&S Type TC)
Decimal point position selectable:
1/0.1/0.01/0.001 for analog input

Temperature Unit: C/F deg selectable

Indication Acc: For TC inputs 0.25% of F.S. +/- 1 deg
R&S type TC inputs 0.5% of F.S. +/- 2 deg
(20 min of warm up time for TC inputs)
For RTD inputs 0.1% of F.S. +/- 1 deg
For Analog Input +/- 0.5%, +/- 1 digit
(F.S. = Full Scale)

Output Specifications

Control: 1
Contact Rating (SPST): 5a @ 230vac / 30vdc resistive
SSR Drive (Voltage Pulse): 18vdc 20ma
Current: 0/4 to 20ma dc (loop impedance 500 ohms max)
Voltage: 0 to 5/10 vdc (load resistance 10K ohms min)

Alarm: 2
Contact Rating (SPST): 5a @ 230vac / 30vdc resistive
SSR Drive: 12 vdc 20ma

Features:

Dual Display, 4 digit, 7 segment LED
TC/RTD Input, Analog Input
ON-OFF, PID, PID Autotune
C/F degrees selectable
Heat Cool PID
Ramp Soak
Soft Start
1/16 din (48 x 48 mm)
Certifications:  

Functional Specifications:

Control Action: PID, On-Off
Proportional Band (P): 0.0 to 400.0 deg
Integral Time (I): 0 to 3600 sec
Derivative Time (D): 0 to 200 sec
Cycle Time: 0.1 to 100.0 sec
Hysteresis Width: 0.1 to 99.9 deg
Manual Reset Value: -99.9 to 99.9 deg

Heat Cool PID

Control Action: PID
Cycle Time: 0.1 to 100 sec
Proportional Gain: 0.0 to 400.0 deg
Deadband: Programmable from setpoint low limit to
setpoint high limit

Alarms

Modes: Deviation high/low, Absolute high/low, band,
sensor break
Hysteresis: 0.1 to 99.9 deg

Ramp Soak

Ramp Rate: 1 to 9999 deg / hr
Soak Time: 0 to 1440 min
Soft Start Time: 0 to 999 min

Supply Voltage: 85 to 270v ac/dc (50/60Hz)
Power Consumption: 6VA max @ 230 vac

Retransmission

Current: 0/4 to 20ma dc (loop impedance 500 ohms max)
Voltage: 0 to 5/10 vdc (load resistance 10k ohms min)
Update Rate: 100msec

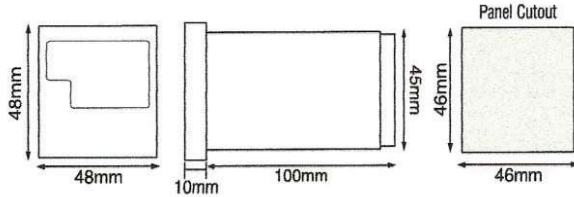


ATC 500 Series

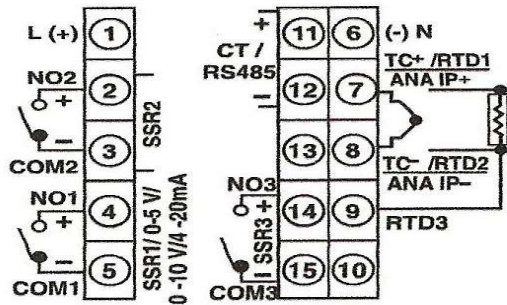
Compliance

IEC/EN 61326 (EMI/EMC)
IEC/EN 61010 Revision 3 2010 Edition (Safety)
UL 61010 Revision 3 2010 Edition (Safety)

Dimensions



Terminal Connections



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Serial Communication

Interface Standard: Rs485
Communication Address: 1 to 99, maximum of 32 units per line
Transmission mode: Half duplex
Transmission protocol: MODBUS RTU
Transmission distance: 500 m maximum
Transmission speed: 9600, 4800, 1200, 600, 300 bits/sec

cURus Cable Size (AWG): 16-13
Stud Hole for Lug (inch): 0.137
Tightening Torque (lb-inch): 7

48 x 48 collar clamp mounting accessory supplied with unit

Environmental Specifications:

Temperature:
Operating 0 to 50 deg C (32 to 122 deg F)
Storage: -20 to 75 deg C (-4 to 167 deg F)
Humidity (non-condensing): 95% RH
Weight: 180 grams
Protection Level: IP65 for faceplate

Note: Other models, options and accessories available.
Please consult factory.

Part Number	Output 1	Output 2	Output 3	Communication (RS485)	Supply Voltage
ATC500000100	Relay	Relay	Relay		85-270v ac/dc
ATC500000400	Relay	Relay	Relay	Yes	85-270v ac/dc
ATC500010500	Relay	12vdc SSR	12vdc SSR	Yes	85-270v ac/dc
ATC500200100	4-20ma	Relay	Relay		85-270v ac/dc
ATC500200400	4-20ma	Relay	Relay	Yes	85-270v ac/dc
ATC500300100	0-10v	Relay	Relay		85-270v ac/dc
ATC500300400	0-10v	Relay	Relay	Yes	85-270v ac/dc

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