Temperature Controller



Features:

- ▶ 4+4 Digits, 7 Segment LED dual display
- Universal input
- NON OFF/ PID control
- Heat cool PID
- Ramp soak
- Soft start
- RS485 Communication MODBUS RTU Protocol
- Retransmission analog output

Technical specifications

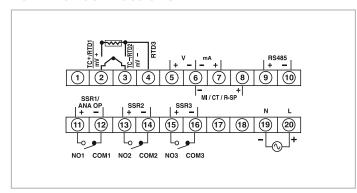
Display specifications					
Display	4+4 digits 7 Segment LED dual display				
Height of display	Upper display: 10 mm, Lower display: 7 mm				
LED indication	1: Main output ; 2, 3: Alarm output ; M: Manual output ; T: Tune				
Input specifications					
Inputs	Thermocouple (J, K, T, R, S, C, E, B, N, L, U, W, Platinel II), RTD (PT100), Signal inputs (- 5 to 56mV, 0 to 10V, 0 to 20mA)				
Resolution	1/ 0.1 for TC/ RTD only (fixed 1° resolution for R & S type TC) Decimal point position selectable: 1/ 0.1/ 0.01/ 0.001 for analog input				
Indication accuracy	For TC inputs: 0.25% of F.S. ±1° For R & S type TC 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° For Analog input: ±0.5%, ±1° digit (F.S. = Full scale)				
Temperature unit	°C/°F selectable				
Input filter (FTC)	1 to 99 sec				
Sampling time	200 ms				
Output specifications					
Control output (Optional)	1				
Contact rating (SPST)	5A @ 230 VAC/ 30 VDC, resistive				
SSR drive (Voltage pulse)	12 VDC, 20 mA				
Current	4 to 20mA DC (loop impedance: 500Ω max)				
Voltage	0 to 10 VDC (load resistance: 10KΩ min)				
Auxiliary output (Optional)	2				
Contact rating (SPST)	5A @ 230 VAC/ 30 VDC				
SSR drive	12 VDC, 20 mA				
Functional specifications					
Control action	1) PID Control 2) ON-OFF control				
Proportional band (P)	0.0 to 400.0°C				
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°				
Manual reset value	- 99.9 to 19.9°				
Heat-cool					
Control action	PID				
Proportional band-cool	0.0 to 400.0°				
Cycle time-cool	0.1 to 100 sec				
Dead band	Programmable from set point low limit to set point high limit.				

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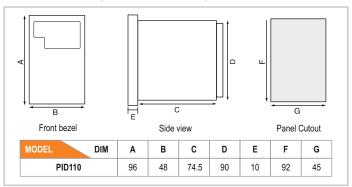
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Settings for alarm output					
Modes	Deviation high/ low, Absolute high/ low, Band, Sensor break				
Hysteresis	0.1 to 99.9°				
Ramp rate	1 to 9999°/ hr				
Soak time	0 to 1440 min				
Soft start time	0 to 999 min				
Auxiliary supply specifications					
Supply voltage	90 to 270 VAC/ DC (50/ 60Hz)				
Power consumption	5 VA max @ 230 VAC				
Environment specifications					
Temperature	Operating: 0°C to 50°C (32 to 122°F); Storage: 20°C to 75°C (- 4 to 167°F)				
Humidity (non - condensing)	85% max. from 0 to 50°C				
Mechanical specifications					
Mounting	Panel				
Weight	250 gms				

Terminal connections



Dimensions (All are in mm)



Ordering information

Product code	Output 1	Output 2	Output 3	Comm. (RS485)	Supply voltage	Certification
PID110-2-0-04	4-20 mA	RELAY (5A)	RELAY (5A)	YES	90 to 270 VAC/ DC	
PID110-0-0-01	RELAY (5A)	RELAY (5A)	RELAY (5A)		90 to 270 VAC/ DC	

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