




Features:

- Dual Display, 4 digit, 7 segment LED
- TC / RTD Input, Analog input
- ON-OFF, PID, PID Autotune
- °C / °F Selectable
- Heat Cool PID
- Ramp Soak
- Soft Start
- Optional Features
 - Heater Current Monitoring
 - Remote Setpoint
 - Motorized Valve Control
 - RS485 Communication

Size: 1/16 DIN, 48mm x 48mm

Certifications: CE c  US

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 20mA)
Sampling time	200 ms
Input Filter (FTC)	0.2 to 10.0 sec
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
Temperature Unit	°C / °F Selectable
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 inputs: 0.1% of F.S. ±1° For Analog Input: ±0.5%, ±1 digit (F.S. = Full Scale)

Output Specifications

Control	1
Contact Rating (SPST)	5A @ 230V AC / 30V DC, resistive
SSR Drive (Voltage Pulse)	18V DC, 20mA
Current	0/4 to 20mA DC (loop impedance:500Ω max.)
Voltage	0 to 5/10V DC (load resistance :10KΩ min.)
Alarm	2
Contact Rating (SPST)	5A @ 230V AC / 30V DC, resistive
SSR Drive	12V DC (20mA)
Retransmission	
Current	0/4 to 20mA DC (loop impedance : 500Ω max)
Voltage	0 to 5/10V DC (load resistance :10KΩ min.)
Update Rate	100 msec

Functional Specifications:

Control Action	1) PID 2) ON-OFF
Proportional Band (P)	0.0 to 400.0°
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 99.9°
Heat Cool PID	
Control Action	PID
Cycle Time	0.1 to 100 sec
Proportional Gain	0.0 to 400.0°
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°
Ramp Soak	
Ramp Rate	1 to 9999°/hr
Soak Time	0 to 1440 min
Soft Start Time	0 to 999 min

Supply Voltage

Supply Voltage	85 to 270V AC/DC (50 / 60Hz) OPTIONAL - 24V AC/DC, ±10%
Power Consumption	6VA max @230V AC

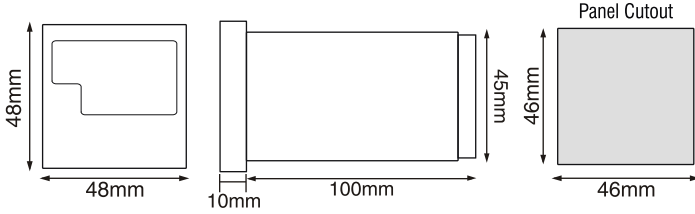
Environmental Specifications

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

Compliance

IEC/EN 61326 (EMI/EMC)
IEC/EN 61010 Revision3 2010 Edition (Safety)
UL 61010 Revision3 2010 Edition (Safety)

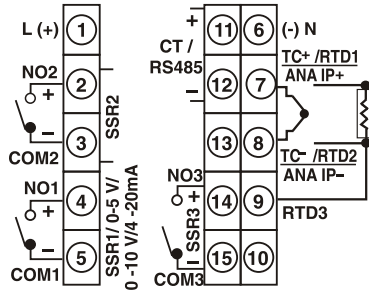
Dimensions



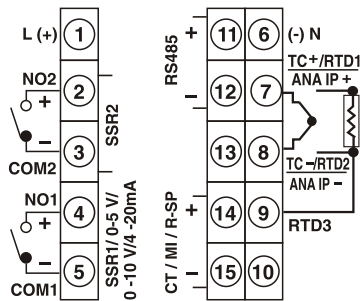
Mounting Accessories (Supplied with units)

48 X 48 Collar clamp ACL4802

Terminal Connections



Terminal connection with second analog input



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

Optional Specifications #2 :

REMOTE SETPOINT INPUT

Inputs	0 to 20mA DC / 0 to 10V DC
Input Resistance	100Ω
Range	-5% to 105%
Scale Range	-1999 to 9999 with fixed 1° for TC/RTD and as per resolution selected for analog input

HEATER CURRENT MONITOR INPUT

Input	100mA AC, 50 to 400Hz
Display Scale Range	0 to 999.9
Input Resistance	47Ω
Accuracy	±0.5% F.S ±1 digit
Alarm mode	Low Alarm / High Alarm / BAND
Over load	150 mA (continuous)

MOTORISED VALVE INPUT

Closed Loop	Potentiometric
Feedback Input	Voltage Input Range: 0 to 10 VDC Current Input Range: 4 to 20 mADC
Motorised Control Mode	Bounded / Boundless
Manual Motor Control Modes	Rest / Run / Up / Down
Motor Position Indication (%)	0.0 to 100.0%
Valve Travel Time	0.1 to 240.0 sec
Control Action (fixed)	Output1: Reverse action Output2: Forward Action

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, 2400, 1200, 600, 300 bits/sec

#2 Optional specifications depend on the type of unit ordered.

Ordering Information

This product is CE certified. Also available with UL marking against order. Please order as per the requirement.

Part No.	OUTPUT 1	OUTPUT 2	OUTPUT 3			SUPPLY VOLTAGE
			RELAY / SSR	COMMUNICATION (RS485)	ADDITIONAL INPUT	
PID500-0-0-00	RELAY	RELAY	NA			85-270V AC/DC
PID500-0-0-00-24V	RELAY	RELAY	NA			24V AC/DC
PID500-0-0-01	RELAY	RELAY	RELAY			85-270V AC/DC
PID500-0-0-04	RELAY	RELAY	RELAY	YES		85-270V AC/DC
PID500-0-0-04-24V	RELAY	RELAY	RELAY	YES		24V AC/DC
PID500-0-1-05	RELAY	12VDC SSR	12VDC SSR	YES		85-270V AC/DC
PID500-0-0-07	RELAY	RELAY	RELAY		CT input	85-270V AC/DC
PID500-0-1-09	RELAY	12VDC SSR	NA	YES	CT input	85-270V AC/DC
PID500-0-0-11-P	RELAY	RELAY	NA	YES	Potentiometric f/b input	85-270V AC/DC
PID500-0-0-11-C	RELAY	RELAY	NA	YES	4-20 mA f/b input	85-270V AC/DC
PID500-0-0-11-V	RELAY	RELAY	NA	YES	0-10 V f/b input	85-270V AC/DC
PID500-0-0-13-C	RELAY	RELAY	NA	YES	4-20 mA input	85-270V AC/DC
PID500-0-0-13-V	RELAY	RELAY	NA	YES	0-10 V input	85-270V AC/DC
PID500-1-0-00	18VDC SSR	RELAY	NA			85-270V AC/DC
PID500-1-0-00-24V	18VDC SSR	RELAY	NA			24V AC/DC
PID500-1-0-01	18VDC SSR	RELAY	RELAY			85-270V AC/DC
PID500-1-1-01	18VDC SSR	12VDC SSR	RELAY			85-270V AC/DC
PID500-1-0-04	18VDC SSR	RELAY	RELAY	YES		85-270V AC/DC
PID500-1-0-04-24V	18VDC SSR	RELAY	RELAY	YES		24V AC/DC
PID500-1-1-05	18VDC SSR	12VDC SSR	12VDC SSR	YES		85-270V AC/DC
PID500-1-0-07	18VDC SSR	RELAY	RELAY		CT input	85-270V AC/DC
PID500-1-1-09	18VDC SSR	12VDC SSR	NA	YES	CT input	85-270V AC/DC
PID500-2-0-00	4-20mA (Current)	RELAY	NA			85-270V AC/DC
PID500-2-0-00-24V	4-20mA (Current)	RELAY	NA			24V AC/DC
PID500-2-0-01	4-20mA (Current)	RELAY	RELAY			85-270V AC/DC
PID500-2-0-04	4-20mA (Current)	RELAY	RELAY	YES		85-270V AC/DC
PID500-2-0-04-24V	4-20mA (Current)	RELAY	RELAY	YES		24V AC/DC
PID500-2-1-05	4-20mA (Current)	12VDC SSR	12VDC SSR	YES		85-270V AC/DC
PID500-2-0-13-C	4-20mA (Current)	RELAY	NA	YES	4-20 mA input	85-270V AC/DC
PID500-2-0-13-V	4-20mA (Current)	RELAY	NA	YES	0-10 V input	85-270V AC/DC
PID500-3-0-00	0 - 10V(Voltage)	RELAY	NA			85-270V AC/DC
PID500-3-0-00-24V	0 - 10V (Voltage)	RELAY	NA			24V AC/DC
PID500-3-0-01	0 - 10V (Voltage)	RELAY	RELAY			85-270V AC/DC
PID500-3-0-04	0 - 10V (Voltage)	RELAY	RELAY	YES		85-270V AC/DC
PID500-3-0-04-24V	0 - 10V (Voltage)	RELAY	RELAY	YES		24V AC/DC
PID500-3-1-05	0 - 10V (Voltage)	12VDC SSR	12VDC SSR	YES		85-270V AC/DC
PID500-3-0-13-C	0 - 10V (Voltage)	RELAY	NA	YES	4-20 mA input	85-270V AC/DC
PID500-3-0-13-V	0 - 10V (Voltage)	RELAY	NA	YES	0-10 V input	85-270V AC/DC
PID500-5-0-04	0 - 20mA (Current)	RELAY	RELAY	YES		85-270V AC/DC
PID500-5-1-05	0 - 20mA (Current)	12VDC SSR	12VDC SSR	YES		85-270V AC/DC
PID500-4-0-04	0 - 5V (Voltage)	RELAY	RELAY	YES		85-270V AC/DC
PID500-4-1-05	0 - 5V (Voltage)	12VDC SSR	12VDC SSR	YES		85-270V AC/DC

UL approved part numbers (with CE mark)

Please add suffix-CU to the above part nos.:

- i.e. 1) **PID500-0-0-00-CU**
 2) **PID500-0-0-00-24V-CU**
 and so on...

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) 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.