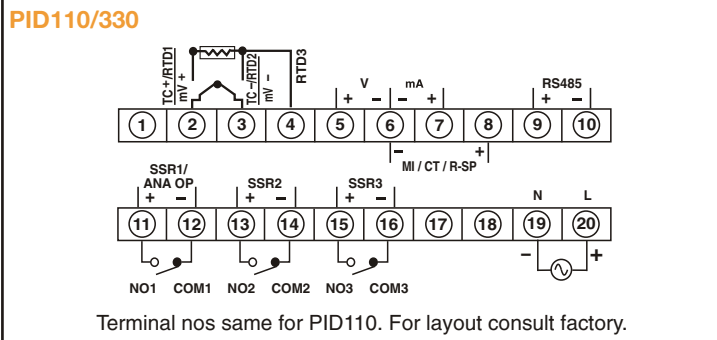
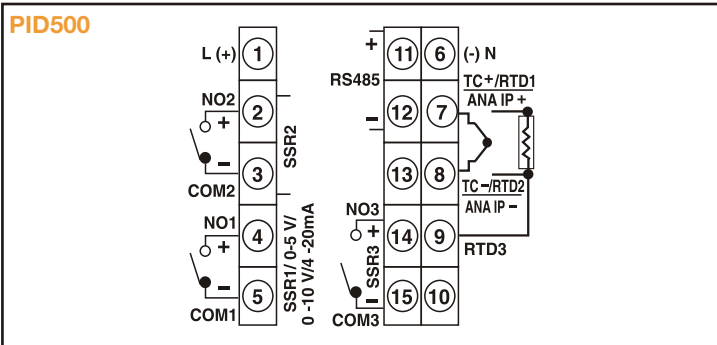




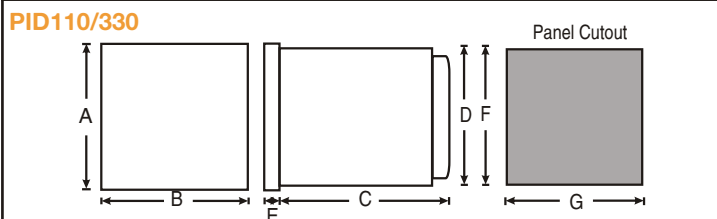
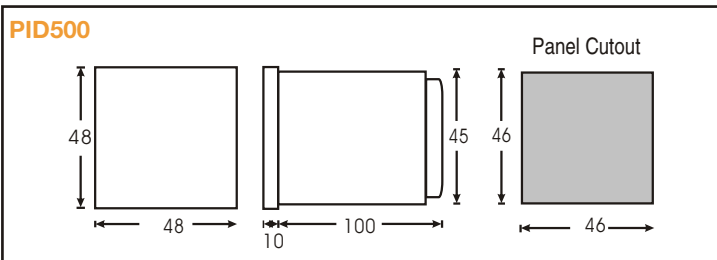
## Ordering Information

Please see page 2 for detailed ordering information or [click here](#).

## Terminal Connections



## Dimensions (in mm)



MODELS	DIM	A	B	C	D	E	F	G
PID110		97.5	50	88	91	10	92	46
PID330		97	97	88	90	10	92	92

## Technical Specifications

<b>Display</b>	Upper: 7 segment red LED Lower: 7 segment green LED
<b>Digits</b>	Upper: 4 digits (process value) Lower: 4 digits (selectable)
<b>LED Indications</b>	Relay ON, Alarm, Manual mode, Tune

## INPUT SPECIFICATIONS

<b>Types</b>	<b>Thermocouple:</b> J, K, T, R, S, C, E, B, N, L, U, W, Platine II <b>RTD:</b> PT100 <b>Signal Inputs:</b> -5 to 56 mV, 0 to 10V, 0 to 20 mA
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<b>Sampling time</b>	200 ms
<b>Resolution</b>	1 / 0.1°C for TC/RTD 1/0.1/0.01/0.001 for analog input
<b>Temperature Unit</b>	°C / °F selectable

## INDICATION ACCURACY

<b>TC / RTD</b>	±0.25% of span ±1°C (20 min of warmup time). Cold junction accuracy ± 5°C
<b>Signal Input</b>	±0.5%, ± 1 digit

## CONTROL OUTPUT

<b>Relay</b>	5 A@230 VAC or 30 VDC
<b>SSR</b>	18 VDC, 20 mA
<b>Current output</b>	0/4 to 20 mA (max. load :500E)
<b>Voltage output</b>	0 to 5/10V (min. load :10K)

## ALARM OUTPUT

	Max. 2
<b>Relay</b>	5 A@230 VAC or 30 VDC
<b>SSR</b>	12 VDC (20 mA)

## RETRANSMISSION OUTPUT

<b>Current Output</b>	0/4 to 20 mA (max. load :500E)
<b>Voltage Output</b>	0 to 5/10 V (min. load :10K)
<b>Update Rate</b>	100 ms

## FUNCTIONAL SPECIFICATIONS

<b>Control Method</b>	PID or ON/OFF
<b>Hysteresis</b>	0.1 to 99.9°
<b>Proportional Band</b>	0.0 to 400.0°
<b>Integral Time</b>	0 to 3600 sec
<b>Derivative Time</b>	0 to 200 sec
<b>Cyclic Time</b>	0.1 to 100 sec
<b>Manual Reset Value</b>	-99.9 to 99.9°

## HEAT COOL PID

<b>Control Method</b>	PID
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## Technical Specifications

### HEAT COOL PID (contd)

<b>Cycle Time</b>	0.1 to 100 sec
<b>Proportional Gain</b>	0 to 400°
<b>Deadband</b>	Programmable

## ALARMS

**Modes** Deviation high/low, absolute high/low, band, sensor break

**Hysteresis** 0.1 to 99.9°

## RAMP SOAK

**Ramp Rate** 1 to 9999 °C/hr

**Soak Time** 0 to 1440 min

## OPTIONAL FEATURES FOR PID500/110/330

### REMOTE SET POINT INPUT

**Input type** 0 to 20 mA / 0 to 10 V

**Input Resistance** 100 ohm

**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** 100 mA AC, 50 to 400 Hz

**Display scale range** 0 to 999.9

**Input resistance** 47 ohm

**Accuracy** ±0.5% F.S ±1 digit

**Alarm mode** LA / HA / BAND

**Over load** 150 mA (continuous)

### SERIAL COMMUNICATION

**Interface standard** RS 485

**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

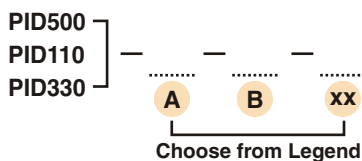
**Supply Voltage** 85 to 270 VAC/DC (AC: 50 or 60 Hz)

**Temperature** **Operating:** 0 to 50°C  
**Storage:** -20 to 75°C

**Humidity (non-condensing)** 95% RH

**Certification**

## Ordering Information



A	
Output 1	
0	Relay
1	18 VDC SSR Drive
2	4-20 mA (Current)
3	0-10 V (Voltage)
4	0-5 V (Voltage)
5	0-20 mA (Current)

B	
Output 2	
0	Relay
1	12 VDC SSR Drive

XX	
Output 3 / Special functions	
00	Only output 1 & 2
01	Output 3 (relay)
02	Output 3 (12 VDC SSR drive)
03	Communication RS485
04	Output 3 (relay) + Communication RS485
05	Output 3 (12 VDC SSR) + Communication RS485
06	CT Input
07	Output 3 (relay) + CT Input
08	Output 3 (12 VDC SSR) + CT Input
09	CT Input+ Communication RS485
Second Analog Input**	
10	Valve positioner type
11	Valve positioner type + Communication RS485
12	Remote setpoint type
13	Remote setpoint type+ Communication RS485

Not Applicable for PID110 / 330

**Second Analog Input			
Valve positioner type		Remote setpoint type	
-P	Potentiometric f/b input	-C	4-20 mA input
-C	4-20 mA f/b input	-V	0-10 V input
-V	0-10 V f/b input		

**\*\*NOTE**  
For 24 VAC / DC model, add suffix '-24'

Specifications are subject to change without notice since development is a continuous process.

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