



PPI OmniX Plus Self-Tune PID Temperature Controller User Manual

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PPI OmniX Plus Self-Tune PID Temperature Controller



This brief manual is primarily meant for quick reference to wiring connections and parameter searching. For more details on operation and application; please log on to www.ppiindia.net

INPUT / OUTPUT CONFIGURATION PARAMETERS:

INPUT / OUTPUT CONFIGURATION PARAMETERS : PAGE-12	
Parameters	Settings (Default Value)
Input Type InPt	Refer Table 1 (Default : Type K)
Control Logic C.LOG	rEu Reverse dir Direct (Default : Reverse)
Setpoint Low SPLO	Min. Range to Setpoint High for the selected Input type (Default : Min. Range for the Selected Input Type)
Setpoint High SPHI	Setpoint Low to Max. Range for the selected Input type (Default : Max. Range for the Selected Input Type)
Offset For PV OFSt	-1999 to 9999 or -199.9 to 999.9 (Default : 0)
Digital Filter For PV F.Lt	0.5 to 25.0 Seconds (in steps of 0.5 Seconds) (Default : 1.0)
Output-2 Function Selection OP2F	none None ALrñ Alarm CtrL Control bLOr Blower S.S.OP Soak Start Output (Default : None)

CONTROL PARAMETERS

CONTROL PARAMETERS : PAGE-10

Parameters	Settings (Default Value)
Control Mode Ctrl	OnOff On-Off PId PID (Default)
On Off Hysteresis Hyst	1 to 999 or 0.1 to 99.9 (Default : 2 or 0.2)
Compressor Time Delay dly	0 to 600 Sec. (in steps of 0.5 Sec.) (Default : 0)
Cycle Time ct	0.5 to 120.0 Seconds (in steps of 0.5 Seconds) (Default : 20.0 Sec)
Proportional Band Pb	0.1 to 999.9 (Default : 10.0)

Parameters	Settings (Default Value)
Integral Time it	0 to 1000 Seconds (Default : 100 Sec)
Derivative Time dt	0 to 250 Seconds (Default : 25 Sec)

OUTPUT-2 FUNCTION PARAMETERS : PAGE-11

OP2 Function : Alarm

Parameters	Settings (Default Value)
Alarm Type ALrñ	P_Lo Process Low P_Hi Process High dEu Deviation Band bAnd Window Band EoS End of Soak (Default : Process Low)
Alarm Inhibit ALi h	YES Yes no No (Default : Yes)
Alarm Logic ALLG	norñ Normal rEu Reverse (Default : Normal)
Alarm Timer ALtñ	5 to 250 (Default : 10)

OP2 Function : Control

Parameters	Settings (Default Value)
Hysteresis HY5.2	1 to 999 or 0.1 to 99.9 (Default : 2 or 0.2)
Control Logic LOG.2	norñ Normal rEu Reverse (Default : Normal)

OP2 Function : Blower

Parameters	Settings (Default Value)
Blower / Compressor Hysteresis bLHY	1 to 250 or 0.1 to 25.0 (Default : 2 or 0.2)
Blower / Compressor Time Delay t.dLY	0 to 600 Sec. (in steps of 0.5 Sec.) (Default : 0)

SUPERVISORY PARAMETERS : PAGE-13	
Parameters	Settings (Default Value)
Self-tune Command tUNE	YES Yes no No (Default : No)
Overshoot Inhibit Enable / Disable o5. h	d5bL Disable EnbL Enable (Default : Disable)
Overshoot Inhibit Factor 0. h.F	1.0 to 2.0 (Default : 1.2)
OP2 Setpoint Editing Permission on Operator Page SP.OP	d5bL Disable EnbL Enable (Default : Enable)
Soak Abort Command on Operator Page SOAK	d5bL Disable EnbL Enable (Default : Enable)
Soak Time Adjustment on Operator Page SOAK	d5bL Disable EnbL Enable (Default : Enable)

Operator parameters

OPERATOR PARAMETERS : PAGE-0	
OP2 Function : Alarm	
Parameters	Settings (Default Value)
Soak Start Command StRT	no No YES Yes (Default : No)
Soak Abort Command AbRT	no No YES Yes (Default : No)
Soak Time SoP.T	00.05 to 60.00 M:S or 00.05 to 99.55 H:M or 1 to 999 Hours (Default : 3 or 0.3)
Alarm Setpoint AL.SP	Minimum to Maximum Range specified for the selected Input Type (Default : 0)

Parameters	Settings (Default Value)
Alarm Deviation AL.dE	-1999 to 9999 or -199.9 to 999.9 (Default : 3 or 0.3)
Alarm Band AL.bA	3 to 999 or 0.3 to 99.9 (Default : 3 or 0.3)
OP2 Function : Control	
Parameters	Settings (Default Value)
Auxiliary Control Setpoint SP.2	(Min. Range - SP) to (Max. Range - SP) (Default : 0)
OP2 Function : Blower	
Parameters	Settings (Default Value)
Blower Control Setpoint BL.SP	0.0 to 25.0 (Default : 0)
Control Setpoint (SP) Locking	
Parameters	Settings (Default Value)
Setpoint Locking S.LOC	YES Yes no No (Default : No)

Soak Timer Parameters

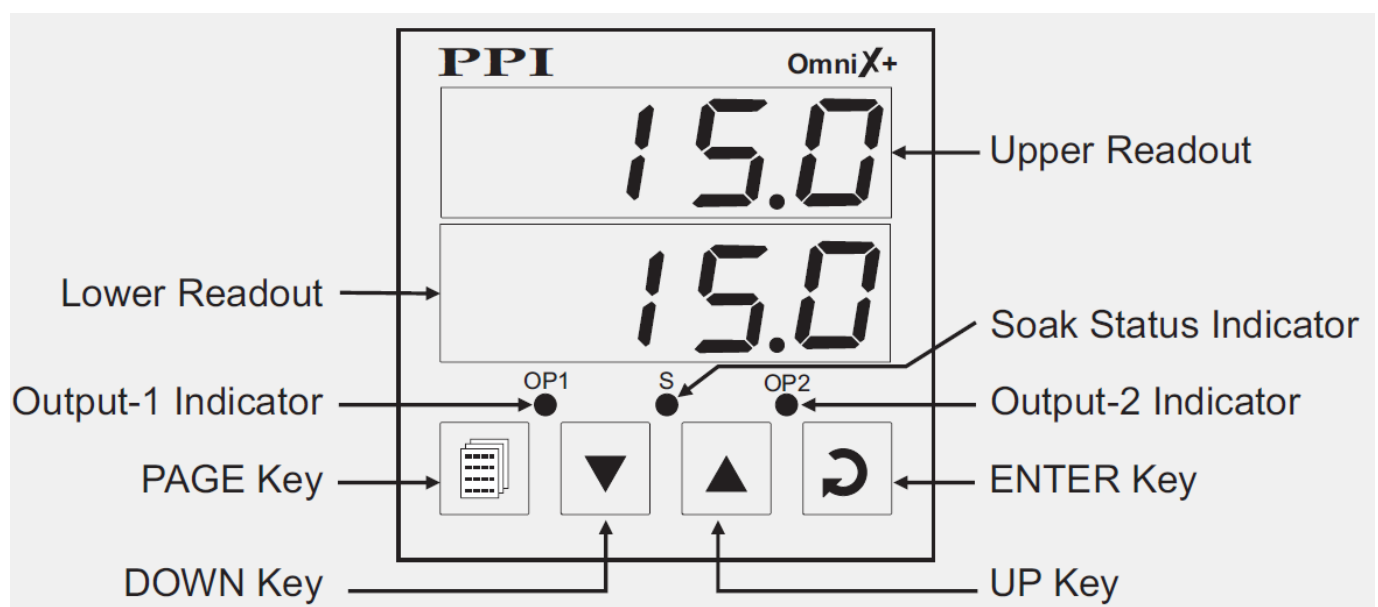
SOAK TIMER PARAMETERS : PAGE-15	
Parameters	Settings (Default Value)
Timer Enable S.Enb	no No YES Yes (Default : No)
Time Units Unit	mm.ss Min:Sec HH.mm Hours:Min Hour Hours (Default : Min: Sec)
Time Duration SoKt	00.05 to 60:00 Min:Sec 00.05 to 99:55 Hrs:Min 1 to 999 Hours (Default : 00.10 Min:Sec)
Timer-start Band S.bnd	0 to 9999 or 0.0 to 999.9 (Default : 5 or 0.5)
Holdback Strategy HOLD	none None UP Up dn Down both Both (Default : None)

Parameters	Settings (Default Value)
Hold Band H.bnd	1 to 9999 or 0.1 to 999.9 (Default : 5 or 0.5)
Switch-off Control Output At Timer End OP.OF	no No YES Yes (Default : No)
Power-fail Recovery Method Pr.FL	Cont Continue StRt (Re)Start AbRt Abort (Default : Continue)

TABLE 1			
Option	What it means	Range (Min. to Max.)	Resolution
Controller Version : J / K Thermocouple			
	Type J Thermocouple	0 to +960°C	1
	Type K Thermocouple	-200 to +1375°C	1
Controller Version : RTD Pt100 Sensor			
	3-wire, RTD Pt100	-199 to +600°C	1
	3-wire, RTD Pt100	-199.9 to +600.0°C	0.1

FRONT PANEL LAYOUT

Front Panel



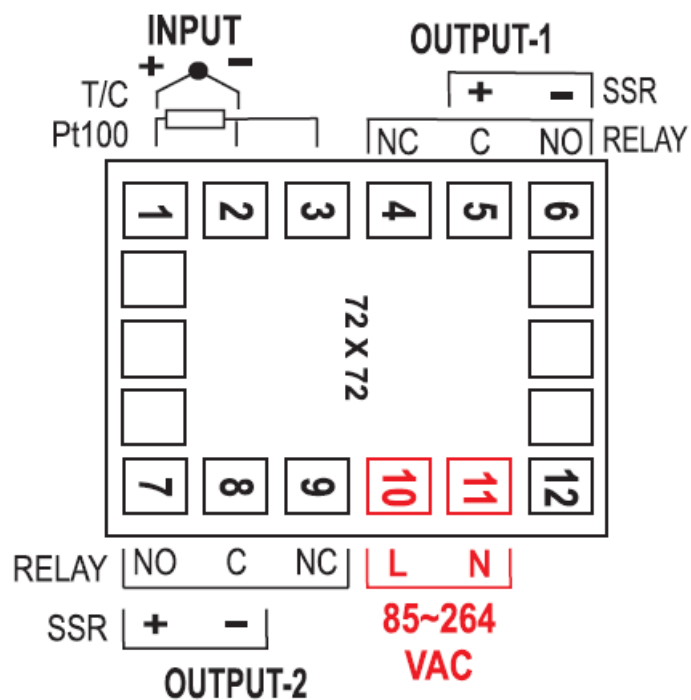
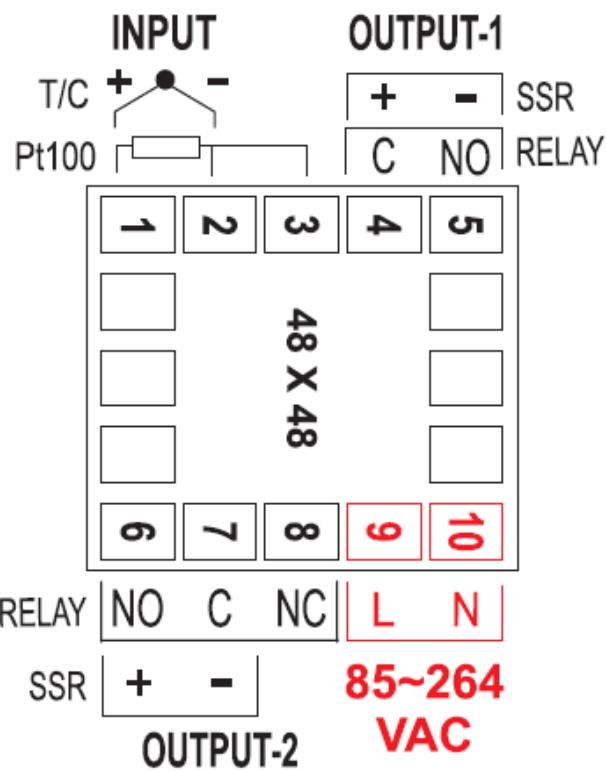
Keys Operation

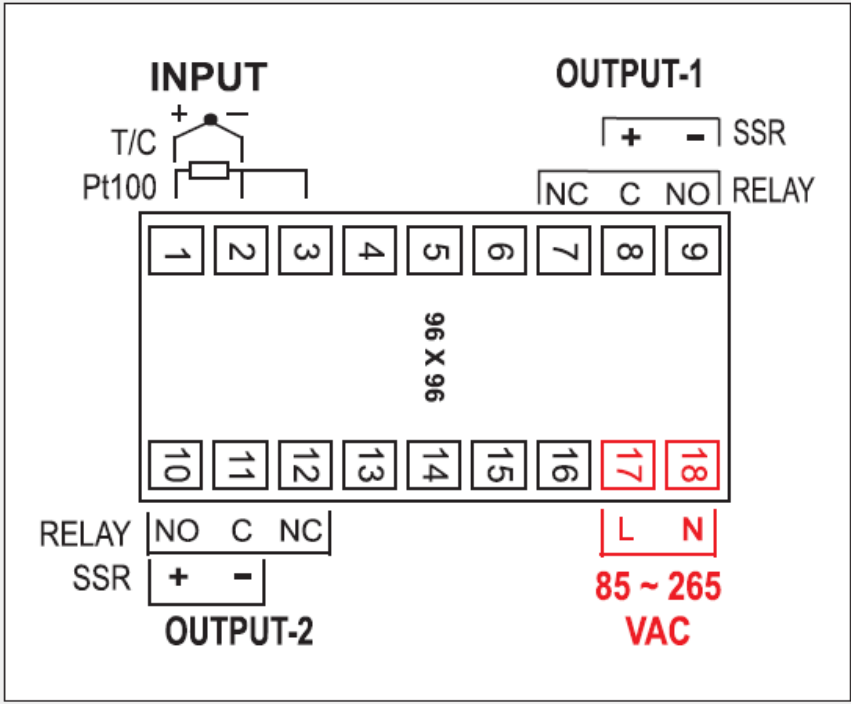
Symbol	Key	Function
	PAGE	Press to enter or exit set-up mode.
	DOWN	Press to decrease the parameter value. Pressing once decreases the value by one count; holding pressed speeds up the change.
	UP	Press to increase the parameter value. Pressing once increases the value by one count; holding pressed speeds up the change.
	ENTER	Press to store the set parameter value and to scroll to the next parameter on the PAGE.

PV Error Indications

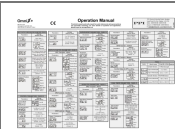
Message	PV Error Type
	Over-range (PV above Max. Range)
	Under-range (PV below Min. Range)
	Open (Thermocouple / RTD broken)

ELECTRICAL CONNECTIONS





Documents / Resources

	PPI OmniX Plus Self-Tune PID Temperature Controller [pdf] User Manual OmniX Plus Self-Tune PID Temperature Controller, OmniX Plus, Self-Tune PID Temperature Controller, PID Temperature Controller, Temperature Controller, Controller
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References

- [Factory Automation Products India | Automation Solutions in India](#)