



PPI Zenex Plus Multi-Purpose Temperature Controller User Manual

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OPERATOR PAGE PARAMETERS	
Parameters	Settings (Default Value)
Time Start Command >> Time Abort Command >>	Yes No(Default : No)
Time Interval (H:M) >>	0.00 to 500.00 (HH:MM)(Default : 0.10)
Ctrl Set Value >>	Setpoint LO limit to Setpoint HI limit (Default : 25.0)
LO Deviation >>	0.2 to 99.9(Default : 2.0)
HI Deviation >>	0.2 to 99.9(Default : 2.0)
Change Password >>	1 to 100(Default : 0)

SUPERVISORY > SERIAL PARAMETERS

Parameters	Settings (Default Value)
Device Id >>	1 to 127(Default : 1)
Baud Rate >>	2400, 4800,9600, 19200,38400, 57600(Default : 9600)
Parity >>	None, Even, Odd (Default : Even)
Serial Write Permission >>	No Yes(Default : No)

SUPERVISORY > SENSOR INPUT

Parameters	Settings (Default Value)
Zero Offset >>	-50.0 to 50.0(Default : 0.0)

SUPERVISORY > CONTROL

Parameters	Settings (Default Value)
Tune >>	Yes No(Default : No)
Setpoint LO Limit >>	For Thermocouple Input :-200 to Setpoint HI Limit For RTD Input :-99.9 to Setpoint HI Limit (Default : 0.0)
Setpoint HI Limit >>	For Thermocouple Input : Setpoint LO Limit to 9999 For RTD Input :Setpoint LO Limit to 600.0(Default : 600.0)
Compressor Setpoint >>	0.0 to 100.0(Default : 45.0)
Compressor Hyst >>	0.1 to 99.9(Default : 2.0)
Heat Ctrl Action >>	ON-OFF PID(Default : PID)
Heat Hyst >>	0.1 to 99.9(Default : 0.2)

Heat Only Control	Heat + Cool Control Zone : Single	Heat + Cool Control Zone : Dual
Proportional Band >>0.1 to 999.9(Default : 50.0)	Proportional Band >>0.1 to 999.9(Default : 50.0)	Cz Prop Band >> <i>Proportional Band for Cool Pre-dominant zone</i> 0.1 to 999.9(Default : 50.0)
Integral Time >> 0 to 3600 sec (Default : 100 sec)	Integral Time >> 0 to 3600 sec (Default : 100 sec)	Cz Integral Time >> <i>Integral Time for Cool Pre-dominant zone</i> 0 to 3600 sec(Default : 100 sec)
Derivative Time >>0 to 600 sec (Default : 16 sec)	Derivative Time >>0 to 600 sec (Default : 16 sec)	Cz Derivative Time >> <i>Derivative Time for Cool Pre-dominant zone</i> 0 to 600 sec (Default : 16 sec)

Heat Only Control	Heat + Cool Control Zone : Single	Heat + Cool Control Zone : Dual
Cycle Time >>0.5 to 100.0 sec (Default : 10.0 sec)	Cycle Time >>0.5 to 100.0 sec (Default : 10.0 sec)	H_z Prop Band >> <i>Proportional Band for Heat Pre-dominant zone</i> 0.1 to 999.9(Default : 50.0)
Overshoot Inhibit >>Enable Disable(Default : Disable)	Overshoot Inhibit >>Enable Disable(Default : Disable)	H_z Integral Time >> <i>Integral Time for Heat Pre-dominant zone</i> 0 to 3600 sec(Default : 100 sec)
Cutoff Factor >>1.0 to 2.0 sec (Default : 1.2 sec)	Cutoff Factor >>1.0 to 2.0 sec (Default : 1.2 sec)	H_z Derivative Time >> <i>Derivative Time for Heat Pre-dominant zone</i> 0 to 600 sec (Default : 16 sec)
		Cycle Time >>0.5 to 100.0 sec (Default : 10.0 sec)
		Overshoot Inhibit >> Enable Disable(Default : Disable)
		Cutoff Factor >>1.0 to 2.0 sec (Default : 1.2 sec)

SUPERVISORY > PASSWORD	
Parameters	Settings (Default Value)
Change Password >>	1000 to 1999(Default : 123)

SUPERVISORY > EXIT	
Parameters	
Exit Setup Mode >>	

FACTORY > SENSOR INPUT	
Parameters	Settings (Default Value)
Input Type >>	Refer Table 1 (Default : RTD Pt100)
Filter Constant >>	0.5 to 60.0(Default : 0.5)

FACTORY > ALARM PARAMETERS	
Parameters	Settings (Default Value)
Hysteresis >>	0.1 to 99.9(Default : 0.2)
Inhibit >>	Yes No(Default : Yes)

FACTORY > HEAT COOL SELECT	
Parameters	Settings (Default Value)
Control Strategy >>	Heat Only Cool Only Heat + Cool(Default : Heat + Cool)
Control Strategy : Cool Only	
Time Delay (sec) >>	0 to 1000 Sec (Default : 200 Sec)
Control Strategy : Heat + Cool	
Compressor Strategy >>	CONT. OFF CONT. ON SP BASED PV BASED(Default : SP BASED)

CONT. ON	SP BASED	PV BASED
TimeDelay (sec) >>0 to 1000 Sec (Default : 200 Sec)	Boundary Set Value >>0.0 to 100.0 (Default : 45.0)	Compressor SP >>0.0 to 100.0 (Default : 45.0)
	Control Zones >>Single Dual (Default : Single)	TimeDelay (sec) >>0 to 1000 Sec (Default : 200 Sec)
	TimeDelay (sec) >>0 to 1000 Sec (Default : 200 Sec)	

FACTORY > TIMER PARAMETERS	
Parameters	Settings (Default Value)
Enable >>	No Yes(Default : No)
Start Band >>	0 to 999.9(Default : 0.5)
Holdback Strategy >>	None Up Down Both(Default : None)
Hold Band >>	0.1 to 999.9(Default : 0.5)
Heat Off >>	No Yes(Default : No)
Cool Off >>	No Yes(Default : No)
Power Recovery >>	Abort Restart Continuous(Default : Restart)

FACTORY > DOOR OPEN	
Parameters	Settings (Default Value)
Enable >>	Yes No(Default : No)
Switch Logic >>	Close : Door Open Open : Door Open(Default : Close : Do or Open)
Door Alrm Dly (sec) >>	0 to 1000 Sec (Default : 60 Sec)

FACTORY > PASSWORD	
Parameters	Settings (Default Value)
Change Password >>	2000 to 2999(Default : 321)

FACTORY > FACTORY DEFAULT	
Parameters	Settings (Default Value)
Set To Default >>	Yes No(Default : No)

FACTORY > EXIT	
Parameters	
Exit Setup Mode >>	

TABLE 1		
Option	Range (Min. to Max.)	Resolution & Unit
Type J (Fe-K)	0.0 to +960.0°C	1 °C
Type K (Cr-Al)	-200.0 to +1376.0°C	
Type T (Cu-Con)	-200.0 to +387.0°C	
Type R (Rh-13%)	0.0 to +1771.0°C	
Type S (Rh-10%)	0.0 to +1768.0°C	
Type B	0.0 to +1826.0°C	
Type N	0.0 to +1314.0°C	
Reserved for customer specific Thermocouple type not listed above. The type shall be specified in accordance with the ordered (optional on request) Thermocouple type.		
RTD Pt100	-99.9 to +600.0°C	0.1 °C

PV ERROR INDICATIONS

Message	Error Type	Cause
OPEN	Sensor Open	RTD Pt100 / Thermocouple is Broken / Open
OVR	Over-range	Temperature above Max. Specified Range
UNR	Under-range	Temperature below Min. Specified Range

FRONT PANEL KEYS

Symbol	Key	Function
	Scroll	Press to scroll through various Process Information Screens in Normal Operation Mode.
	Alarm Acknowledge	Press to acknowledge and mute (if active) alarm output.
	DOWN	Press to decrease the parameter value. Pressing once decreases the value by one count; keeping pressed speeds up the change.
	UP	Press to increase the parameter value. Pressing once increases the value by one count; keeping pressed speeds up the change.
	SET-UP	Press to enter or exit set-up mode.
	ENTER	Press to store the set parameter value and to scroll to the next parameter.

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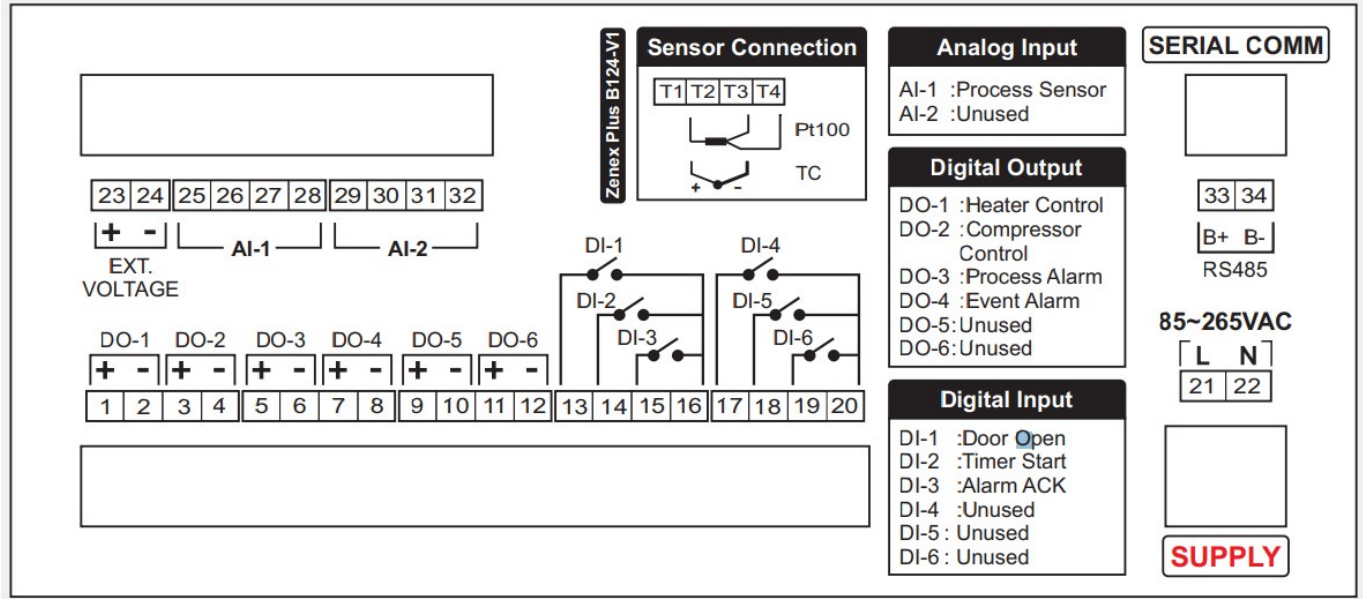
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4 Documents / Resources

4.1 References

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ELECTRICAL CONNECTIONS



OPERATOR PAGE PARAMETERS	
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Change Password >>	1 to 100(Default : 0)

SUPERVISORY > SENSOR INPUT	
Parameters	Settings (Default Value)
Zero Offset >>	-50.0 to 50.0(Default : 0.0)

SUPERVISORY > SERIAL PARAMETERS	
Parameters	Settings (Default Value)
Device Id >>	1 to 127(Default : 1)
Baud Rate >>	2400, 4800,9600, 19200,38400, 57600(Default : 9600)
Parity >>	None, Even, Odd (Default : Even)
Serial Write Permission >>	No Yes(Default : No)

SUPERVISORY > CONTROL	
Parameters	Settings (Default Value)
Tune >>	Yes No(Default : No)
Setpoint LO Limit >>	For Thermocouple Input :-200 to Setpoint HI Limit For RTD Input :-99.9 to Setpoint HI Limit (Default : 0.0)
Setpoint HI Limit >>	For Thermocouple Input : Setpoint LO Limit to 9999 For RTD Input :Setpoint LO Limit to 600.0(Default : 600.0)
Compressor Setpoint >>	0.0 to 100.0(Default : 45.0)
Compressor Hyst >>	0.1 to 99.9(Default : 2.0)
Heat Ctrl Action >>	ON-OFF PID(Default : PID)
Heat Hyst >>	0.1 to 99.9(Default : 0.2)

Heat Only Control	Heat + Cool Control Zone : Single	Heat + Cool Control Zone : Dual
Proportional Band >>0.1 to 999.9(Default : 50.0)	Proportional Band >>0.1 to 999.9(Default : 50.0)	Cz Prop Band >> <i>Proportional Band for Cool Pre-dominant zone</i> 0.1 to 999.9(Default : 50.0)
Integral Time >> 0 to 3600 sec (Default : 100 sec)	Integral Time >> 0 to 3600 sec (Default : 100 sec)	Cz Integral Time >> <i>Integral Time for Cool Pre-dominant zone</i> 0 to 3600 sec(Default : 100 sec)
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Heat Only Control	Heat + Cool Control Zone : Single	Heat + Cool Control Zone : Dual
Cycle Time >>0.5 to 100.0 sec (Default : 10.0 sec)	Cycle Time >>0.5 to 100.0 sec (Default : 10.0 sec)	H_z Prop Band >> <i>Proportional Band for Heat Pre-dominant zone</i> 0.1 to 999.9(Default : 50.0)
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		Cutoff Factor >>1.0 to 2.0 sec (Default : 1.2 sec)

SUPERVISORY > PASSWORD	
Parameters	Settings (Default Value)
Change Password >>	1000 to 1999(Default : 123)

SUPERVISORY > EXIT	
Parameters	Settings (Default Value)
Exit Setup Mode >>	Yes No(Default : No)

FACTORY > SENSOR INPUT	
Parameters	Settings (Default Value)
Input Type >>	Refer Table 1 (Default : RTD Pt100)
Filter Constant >>	0.5 to 60.0(Default : 0.5)

FACTORY > ALARM PARAMETERS	
Parameters	Settings (Default Value)
Hysteresis >>	0.1 to 99.9(Default : 0.2)
Inhibit >>	Yes No(Default : Yes)

FACTORY > HEAT COOL SELECT	
Parameters	Settings (Default Value)
Control Strategy >>	Heat Only Cool Only Heat + Cool(Default : Heat + Cool)
Control Strategy : Cool Only	
Time Delay (sec) >>	0 to 1000 Sec (Default : 200 Sec)
Control Strategy : Heat + Cool	
Compressor Strategy >>	CONT. OFF CONT. ON SP BASED PV BASED(Default : CONT. ON)

CONT. ON	SP BASED	PV BASED
	Boundary Set Value >>0.0 to 100.0(Default : 45.0)	Compressor SP >>0.0 to 100.0(Default : 45.0)
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Parameters	Settings (Default Value)
Enable >>	No Yes(Default : No)
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Change Password >>	2000 to 2999(Default : 321)

FACTORY > FACTORY DEFAULT	
Parameters	Settings (Default Value)
Set To Default >>	Yes No(Default : No)

FACTORY > EXIT	
Parameters	Settings (Default Value)
Exit Setup Mode >>	Yes No(Default : No)

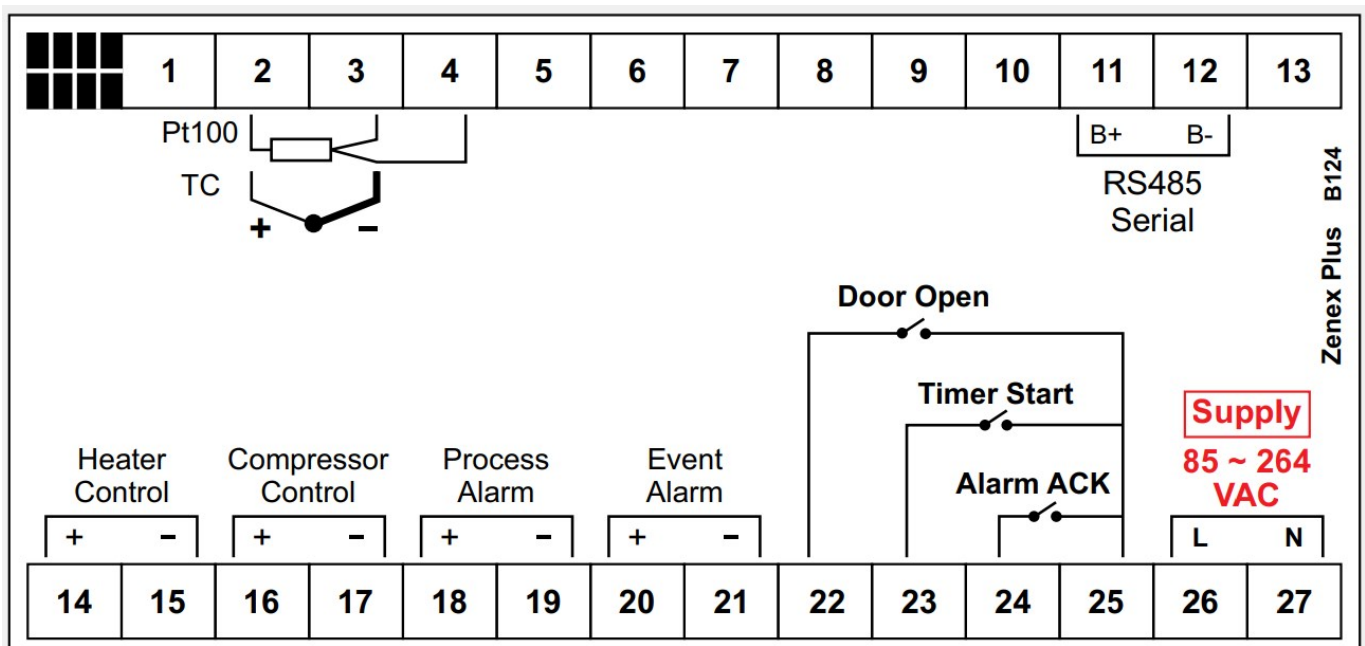
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	ENTER	Press to store the set parameter value and to scroll to the next parameter.

ELECTRICAL CONNECTIONS



Support

101, Diamond Industrial Estate, Navghar,
Vasai Road (E), Dist. Palghar – 401 210.

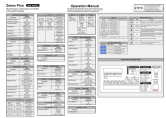
Sales : 8208199048 / 8208141446

Support : 07498799226 / 08767395333

E: sales@ppiindia.net, support@ppiindia.net



Documents / Resources



[PPI Zenex Plus Multi-Purpose Temperature Controller](#) [pdf] User Manual

Zenex Plus Multi-Purpose Temperature Controller, Zenex Plus, Multi-Purpose Temperature Controller, Temperature Controller, Controller

References

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