

EPSILON 48X48

Self Tune PID Process Controller
with Ramp / Soak Profile



Operation Manual

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



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

Jan 2022

CONFIGURATION PARAMETERS : PAGE 12	
Parameters	Settings (Default Value)
Control Output (OP1) Type C_OP	rLy Relay
	SSr SSR
	0-20 0 - 20 mA
	4-20 4 - 20 mA
	0-5 0 - 5 V
	0-10 0 - 10 V (Default : Relay)
Control Action C_Ac	OnOff On-Off
	PULS Pulse
	PID PID (Default : PID)
Control Logic CtrL	rEu Reverse
	dir Direct (Default : Reverse)
Input Type inp	Refer Table 1 (Default : Type K)
PV Resolution rSLn	Refer Table 1 (Default : 1)
PV Units Unit	oC °C
	oF °F (Default : °C)
PV Range Low rLo	-1999 to 9999 (Default : 0)
PV Range High rHi	-1999 to 9999 (Default : 1000)
Setpoint Low Limit SPLo	Min. Range for the selected Input Type to Setpoint High Limit (Default : -199)
Setpoint High Limit SPHi	Setpoint Low Limit to Max. Range for the selected Input Type (Default : 1376)
Offset for PV OFSt	-199 to 999 or -199.9 to 999.9 (Default : 0)
Digital Filter Time Constant FLt	0.5 to 60.0 Seconds (in steps of 0.5 Secs.) (Default : 2.0 Sec.)
Sensor Break Output Power SbOP	-100 to 100 (Default : 0)

CONTROL PARAMETERS : PAGE 10	
Parameters	Settings (Default Value)
Proportional Band Pb	1 to 999 Units (Default : 50 units)
Integral Time It	0 to 3600 Seconds (Default : 100 Sec.)
Derivative Time dT	0 to 600 Seconds (Default : 16 Sec.)
Cycle Time Ct	0.5 to 100.0 Seconds (in steps of 0.5 secs.) (Default : 10.0 Sec.)
Relative Cool Gain rELC	0.1 to 10.0 (Default : 1.0)
* Cool Cycle Time CCt	0.5 to 100.0 Seconds (in steps of 0.5 secs.) (Default : 10.0 Sec.)
Hysteresis HYSt	1 to 999 (Default : 2)

Parameters	Settings (Default Value)
Pulse Time PLt	Pulse ON Time to 120.0 Seconds (Default : 2.0 sec.)
ON Time OnT	0.1 to Value set for Pulse Time (Default : 1.0)
* Cool Hysteresis CHYS	1 to 999 (Default : 2)
* Cool Pulse Time CPLt	Cool ON Time to 120.0 Seconds (Default : 2.0)
* Cool ON Time COnT	0.1 to Value set for Cool Pulse Time (Default : 1.0)
Heat Power Low PL	0 to Power High (Default : 0)
Heat Power High PH	Power Low to 100 (Default : 100)
* Cool Power Low CPL	0 to Cool Power High (Default : 0)
* Cool Power High CPH	Cool Power Low to 100 (Default : 100)

* Controller supplied with Bi-Directional control (Heat + Cool) mode option.

SUPERVISORY PARAMETERS : PAGE 13	
Parameters	Settings (Default Value)
Self-Tune Command tUnE	no No YES Yes (Default : No)
Overshoot Inhibit oSh	dSbL Disable EnbL Enable (Default : Disable)
Overshoot Inhibit Factor O,hF	1.0 to 2.0 (Default : 1.0)
SP Adjustment on Lower Readout SPLr	dSbL Disable EnbL Enable (Default : Enable)
SP Adjustment on Operator Page SPOP	dSbL Disable EnbL Enable (Default : Enable)
Alarm SP Adjustment on Operator Page ALSP	dSbL Disable EnbL Enable (Default : Disable)
Standby Mode Stby	dSbL Disable EnbL Enable (Default : Disable)
Profile Abort Command on Operator Page AbT	dSbL Disable EnbL Enable (Default : Disable)
Utility Option Selection OPtn	nonE None SrLC Serial Comm. AUSP Auxiliary Setpoint (Default : Serial Comm.)
Baud Rate BAUD	48 4800 96 9600 192 19200 384 38400 576 57600 (Default : 9.6)

Parameters	Settings (Default Value)
Communication Parity PARi	nonE None EuEn Even Odd Odd (Default : Even)
Controller ID Number Id	1 to 127 (Default : 1)
Communication Write Enable CoWE	no No YES Yes (Default : No)

OP2 & OP3 FUNCTION PARAMETERS : PAGE 15	
Parameters	Settings (Default Value)
Output-2 Function Selection OP2F	nonE None ALrñ Alarm CCon Cool Control EOP End Of Profile CtrL Auxiliary Control bLor Blower (Default : None)
Alarm-1 Logic ALG	norñ Normal rEu Reverse (Default : Normal)
Output-2 Type OP2T	rLy Relay SSr SSR 0-20 0 - 20mA 4-20 4 - 20mA 0-5 0 - 5 V 0-10 0 - 10 V (Default : Relay)
OP2 Event Status OESt	On ON OFF OFF (Default : ON)
OP2 Event Time OEET	0 to 9999 (Default : 0)
OP2 Event Time Units OEUT	SEC Seconds ñin Minutes Hour Hours (Default : Seconds)
Offset Value for Auxiliary Control Setpoint SP2	-199 to 999 or -199.9 to 999.9 (Default : 0)
Auxiliary Control Hysteresis HYSt	1 to 999 or 0.1 to 999.9 (Default : 2)
Auxiliary Control Logic LOG2	norñ Normal rEu Reverse (Default : Normal)
Offset Value for Blower Control Setpoint bLSP	0 to 25 or 0.0 to 25.0 (Default : 0)
Auxiliary Control Hysteresis HYSt	1 to 999 or 0.1 to 999.9 (Default : 2)
Auxiliary Control Logic LOG2	norñ Normal rEu Reverse (Default : Normal)
Offset Value for Blower Control Setpoint bLSP	0 to 25 or 0.0 to 25.0 (Default : 0)

Parameters	Settings (Default Value)
Blower Control Hysteresis bLHY	1 to 25 or 0.1 to 25.0 (Default : 2)
Blower Control Time Delay tDLy	0.00 to 10.00 Min. Sec (in steps of 5 Seconds) (Default : 0.00)
Output-3 Function Selection OP3F	nonE None ALrñ Alarm EOP End Of Profile rEC Recorder (Default : Alarm)
Alarm-2 Logic A2LG	norñ Normal rEu Reverse (Default : Normal)
OP3 Event Status OESt	On ON OFF OFF (Default : ON)
OP3 Event Time OEET	0 to 9999 (Default : 0)
OP3 Event Time Units OEUT	SEC Seconds ñin Minutes Hour Hours (Default : Seconds)
Select PV or SP for Recorder Transmission trns	Pu Process Value SP Setpoint (Default : Process Value)
Recorder Output Type rECo	0-20 0 - 20mA 4-20 4 - 20mA 0-5 0 - 5 V 0-10 0 - 10 V (Default : 0 to 20mA)
Recorder Low rECL	Min. to Max. Range Specified for the Selected Input Type (Default : -199)
Recorder High rECH	Min. to Max. Range Specified for the Selected Input Type (Default : 1376)

ALARM PARAMETERS : PAGE 11	
Parameters	Settings (Default Value)
Alarm-1 Type AL-1	nonE None P_Lo Process Low P_Hi Process High dE Deviation Band bAnd Window Band (Default : None)
Alarm-1 Setpoint A1SP	Min. to Max. Range specified for the selected Input Type (Default : Min or Max Range)
Alarm-1 Deviation Band A1dE	-999 to 999 or -999.9 to 999.9 (Default : 5)
Alarm-1 Window Band A1bA	3 to 999 (Default : 5)
Alarm-1 Hysteresis A1HY	1 to 999 (Default : 2)
Alarm-1 Inhibit A1h	no No YES Yes (Default : No)

Parameters	Settings (Default Value)
Alarm-2 Type AL-2	nonE None P_Lo Process Low P_Hi Process High dE Deviation Band bAnd Window Band (Default : None)
Alarm-2 Setpoint A2SP	Min. to Max. Range specified for the selected Input Type (Default : Min or Max Range)
Alarm-2 Deviation Band A2dE	-999 to 999 (Default : 5)
Alarm-2 Window Band A2bA	3 to 999 (Default : 5)
Alarm-2 Hysteresis A2HY	1 to 999 (Default : 2)
Alarm-2 Inhibit A2h	no No YES Yes (Default : No)

PROFILE CONFIGURATION PARAMETERS : PAGE 16	
Parameters	Settings (Default Value)
Enabling Profile Feature PrOF	dSbL Disable EnbL Enable (Default : Disable)
Number of Segments nSEG	1 to n (n = 4, 8, 12 or 16 depending on factory configuration) (Default : n)
Number of Repeats nrPt	1 to 9999 (Default : 1)
Common Holdback CoHb	no No YES Yes (Default : Yes)
Output Off OPOF	no No YES Yes (Default : No)
'Power Fail Recovery' Strategy PrFL	AbT Abort Cont Continue (Default : Continue)

PROFILE SETTING PARAMETERS : PAGE 14	
Parameters	Settings (Default Value)
Segment Number SEGn	1 to n (n = 4, 8, 12 or 16 depending on factory configuration) (Default : 1)
Target Setpoint t-SP	Min. to Max. Range specified for the selected Input Type (Default : -199)
Time Interval tñE	0 to 9999 Minutes (Default : 0)
Holdback Type HbTy	nonE None UP Up dn Down both Both (Default : None)
Holdback Value HbUL	1 to 999 (Default : 1)

OPERATOR PAGE PARAMETERS : PAGE 0	
Parameters	Settings (Default Value)
End of Profile Acknowledge EOPR	no No YES Yes (Default : No)
Profile Start Command StT	no No YES Yes (Default : No)
Profile Abort Command AbT	no No YES Yes (Default : No)
Profile Pause Command PAUS	no No YES Yes (Default : No)
Segment Skip Command SPIP	no No YES Yes (Default : No)
(De)Activate Standby Mode Stby	no No YES Yes (Default : No)
Control Setpoint SP	Setpoint Low Limit to Setpoint High Limit (Default : -199)
Auxiliary Control Setpoint AUSP	Setpoint Low Limit to Setpoint High Limit (Default : -199)
Alarm-1 Setpoint A1SP	Throughout the range for the selected Input Type (Default : For Process Low : -199 For Process High : 1376)
Alarm-1 Deviation Band A1dE	-999 to 999 (Default : 5)
Alarm-1 Window Band A1bA	3 to 999 (Default : 5)
Alarm-2 Setpoint A2SP	Throughout the range for the selected Input Type (Default : For Process Low : -199 For Process High : 1376)
Alarm-2 Deviation Band A2dE	-999 to 999 (Default : 5)
Alarm-2 Window Band A2bA	3 to 999 (Default : 5)

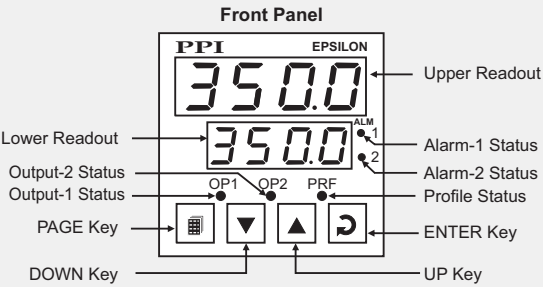
PROFILE STATUS INFORMATION : PAGE 1	
Lower Readout Prompt	Upper Readout Information
ASEG	Active Segment Number
StYP	Segment Type rAnP SOAK
t-SP	Target Setpoint
r-SP	Ramping Setpoint
bTñ	Balance Time
b.rPt	Balance Repeats

ON-LINE ALTERATION PARAMETERS : PAGE 2	
Parameters	Effect on the running segment
Time Interval tñE	RAMP :- Altering the time interval shall immediately affect the 'Ramp Rate' for the current segment. SOAK :- Elapsed time so far is ignored and the soak timer starts counting down to 0 from the altered time interval value.
Holdback Type HbTy	The modified Holdback Band Type is applied immediately on the current segment.
Holdback Value HbUL	The modified Holdback Band Value is applied immediately on the current segment.
Balance Repeats b.rPt	The modified repeats become the new target repeats with immediate effect.

TABLE- 1		
Option	Range (Min. to Max.)	Resolution
 J Type T/C	0 to +960°C / +32 to +1760°F	Fixed 1°C / 1°F
 K Type T/C	-200 to +1376°C / -328 to +2508°F	
 T Type T/C	-200 to +385°C / -328 to +725°F	
 R Type T/C	0 to +1770°C / +32 to +3218°F	
 S Type T/C	0 to +1765°C / +32 to +3209°F	
 B Type T/C	0 to +1825°C / +32 to +3218°F	
 N Type T/C	0 to +1300°C / +32 to +2372°F	
 Reserved for customer specific Thermocouple type not listed above.		
 RTD Pt100	-199 to +600°C / -328 to +1112°F or -199.9 to 600.0°C / -199.9 to 999.9°F	User settable 1°C/1°F or 0.1°C/0.1°F
 0 to 20mA DC	-1999 to +9999 units	User settable 1 / 0.1 / 0.01 / 0.001 units
 4 to 20mA DC		
 0 to 50mV DC		
 0 to 200mV DC		
 0 to 1.25V DC		
 0 to 5.0V DC		
 0 to 10.0V DC		
 1 to 5.0V DC		



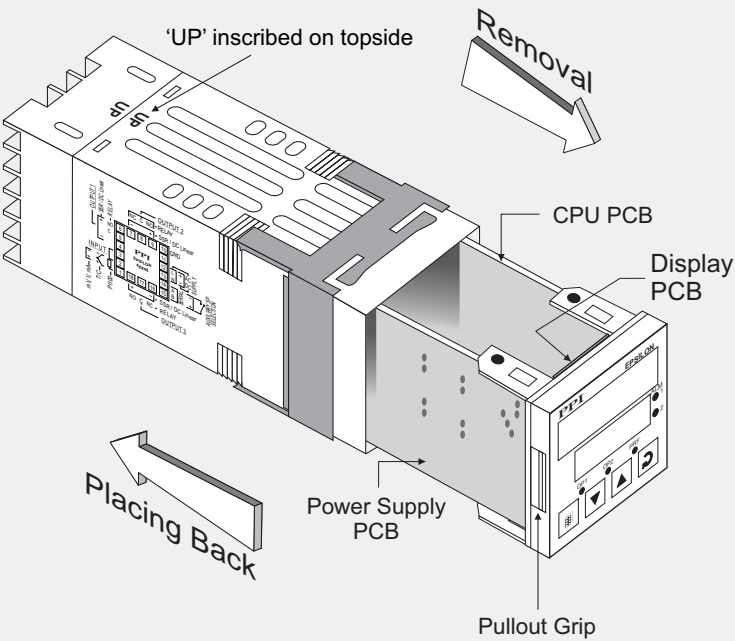
FRONT PANEL LAYOUT



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; keeping 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.

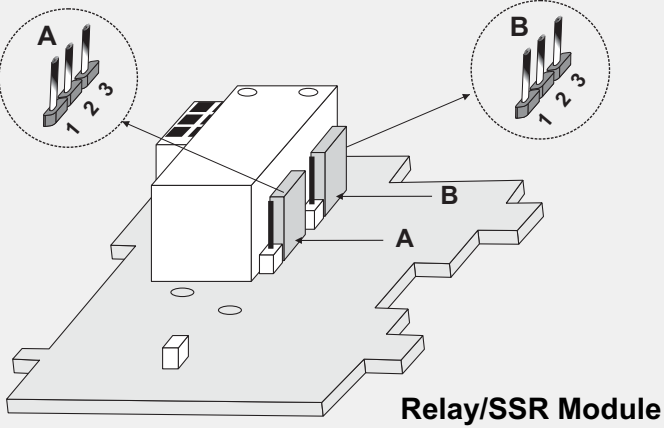
PV Error Indications	
Message	PV Error Type
	Over-range (PV above Max. Range)
	Under-range (PV below Min. Range)
	Open (Sensor open / broken)

ENCLOSURE ASSEMBLY



JUMPER SETTINGS

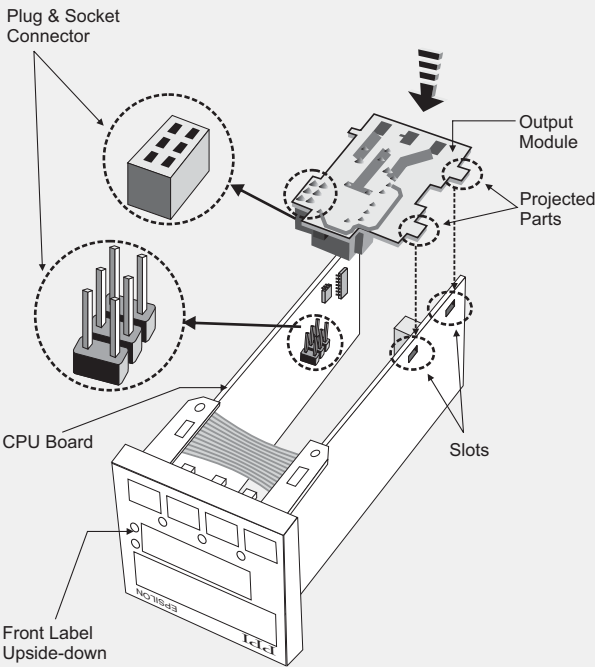
OUTPUT-2 & OUTPUT-3



Output Type	Jumper Setting - A	Jumper Setting - B
Relay		
SSR		

MOUNTING DETAILS

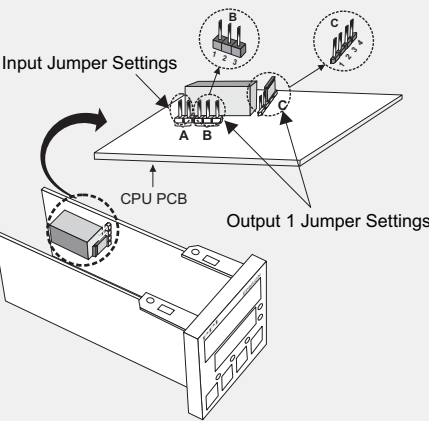
OUTPUT-3 MODULE



ELECTRICAL CONNECTIONS

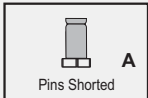
JUMPER SETTINGS

INPUT & OUTPUT-1



Input Jumper Settings

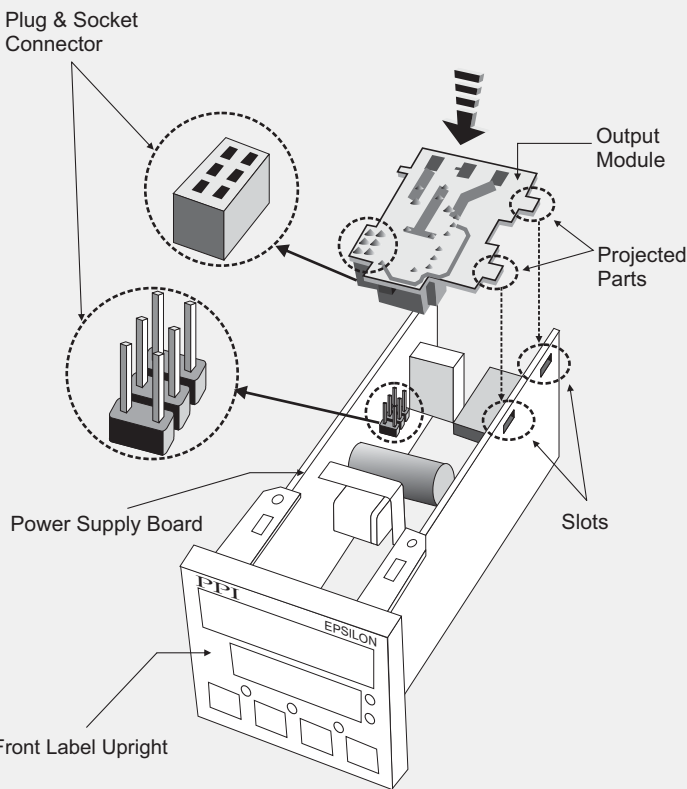
Output - 1 Jumper Settings



Output Type	Jumper Setting - B	Jumper Setting - C
Relay		
SSR Drive		
DC Linear Current (or Voltage)		

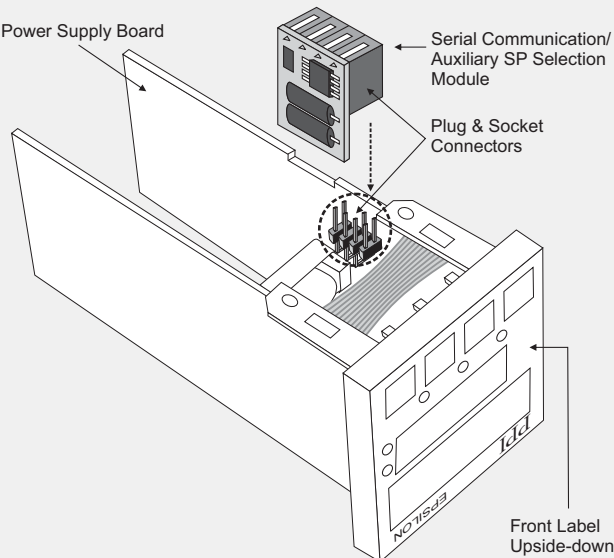
MOUNTING DETAILS

OUTPUT-2 MODULE



MOUNTING DETAILS

SERIAL COMM. MODULE



EPSILON 96X96

Self Tune PID Process Controller
with Ramp / Soak Profile



Operation Manual

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



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

Jan 2022

CONFIGURATION PARAMETERS : PAGE 12	
Parameters	Settings (Default Value)
Control Output (OP1) Type C_OP	rLy Relay
	SSr SSR
	0-20 0 - 20 mA
	4-20 4 - 20 mA
	0-5 0 - 5 V
	0-10 0 - 10 V (Default : Relay)
Control Action C_Ac	OnOff On-Off
	PULS Pulse
	PID PID (Default : PID)
Control Logic CtrL	rEu Reverse
	dir Direct (Default : Reverse)
Input Type inp	Refer Table 1 (Default : Type K)
PV Resolution rSLn	Refer Table 1 (Default : 1)
PV Units Unit	°C °C
	°F °F (Default : °C)
PV Range Low rLo	-1999 to 9999 (Default : 0)
PV Range High rHi	-1999 to 9999 (Default : 1000)
Setpoint Low Limit SPLo	Min. Range for the selected Input Type to Setpoint High Limit (Default : -199)
Setpoint High Limit SPHi	Setpoint Low Limit to Max. Range for the selected Input Type (Default : 1376)
Offset for PV OFSt	-199 to 999 or -199.9 to 999.9 (Default : 0)
Digital Filter Time Constant Flt	0.5 to 60.0 Seconds (in steps of 0.5 Seconds) (Default : 2.0 Sec.)
Sensor Break Output Power SbOP	-100 to 100 (Default : 0)

CONTROL PARAMETERS : PAGE 10	
Parameters	Settings (Default Value)
Proportional Band Pb	1 to 999 Units (Default : 50 units)
Integral Time It	0 to 3600 Seconds (Default : 100 Sec.)
Derivative Time dT	0 to 600 Seconds (Default : 16 Sec.)
Cycle Time Ct	0.5 to 100.0 Seconds (in steps of 0.5 secs.) (Default : 10.0 Sec.)
Relative Cool Gain rELC	0.1 to 10.0 (Default : 1.0)
* Cool Cycle Time CCt	0.5 to 100.0 Seconds (in steps of 0.5 secs.) (Default : 10.0 Sec.)
Hysteresis HYSt	1 to 999 (Default : 2)

Parameters	Settings (Default Value)
Pulse Time PLt	Pulse ON Time to 120.0 Seconds (Default : 2.0 sec.)
ON Time On	0.1 to Value set for Pulse Time (Default : 1.0)
* Cool Hysteresis CHYS	1 to 999 (Default : 2)
* Cool Pulse Time CPLt	Cool ON Time to 120.0 Seconds (Default : 2.0)
* Cool ON Time COn	0.1 to Value set for Cool Pulse Time (Default : 1.0)
Heat Power Low PL	0 to Power High (Default : 0)
Heat Power High PH	Power Low to 100 (Default : 100)
* Cool Power Low CPL	0 to Cool Power High (Default : 0)
* Cool Power High CPH	Cool Power Low to 100 (Default : 100)

* Controller supplied with Bi-Directional control (Heat + Cool) mode option.

SUPERVISORY PARAMETERS : PAGE 13	
Parameters	Settings (Default Value)
Self-Tune Command tUnE	no No YES Yes (Default : No)
Overshoot Inhibit oSh	dSbL Disable EnbL Enable (Default : Disable)
Overshoot Inhibit Factor O.hF	1.0 to 2.0 (Default : 1.0)
SP Adjustment on Lower Readout SPLr	dSbL Disable EnbL Enable (Default : Enable)
SP Adjustment on Operator Page SPoP	dSbL Disable EnbL Enable (Default : Enable)
Alarm SP Adjustment on Operator Page ALSP	dSbL Disable EnbL Enable (Default : Disable)
Standby Mode Stby	dSbL Disable EnbL Enable (Default : Disable)
Profile Abort Command on Operator Page Ab	dSbL Disable EnbL Enable (Default : Disable)
Utility Option Selection OPtn	nonE None SrLC Serial Comm. AUSP Auxiliary Setpoint (Default : Serial Comm.)
Baud Rate BAUD	48 4800 96 9600 192 19200 384 38400 576 57600 (Default : 9.6)

Parameters	Settings (Default Value)
Communication Parity PARi	nonE None EuEn Even Odd Odd (Default : Even)
Controller ID Number Id	1 to 127 (Default : 1)
Communication Write Enable CoWE	no No YES Yes (Default : No)

OP2 & OP3 FUNCTION PARAMETERS : PAGE 15	
Parameters	Settings (Default Value)
Output-2 Function Selection OP2F	nonE None ALrñ Alarm CCon Cool Control EOP End Of Profile CtrL Auxiliary Control BLor Blower (Default : None)
Alarm-1 Logic ALG	norñ Normal rEu Reverse (Default : Normal)
Output-2 Type OP2t	rLy Relay SSr SSR 0-20 0 - 20mA 4-20 4 - 20mA 0-5 0 - 5 V 0-10 0 - 10 V (Default : Relay)
OP2 Event Status OESt	On ON OFF OFF (Default : ON)
OP2 Event Time OEEt	0 to 9999 (Default : 0)
OP2 Event Time Units OEUt	SEC Seconds ñin Minutes Hour Hours (Default : Seconds)
Offset Value for Auxiliary Control Setpoint SP2	-199 to 999 or -199.9 to 999.9 (Default : 0)
Auxiliary Control Hysteresis HYSt	1 to 999 or 0.1 to 999.9 (Default : 2)
Auxiliary Control Logic LOG2	norñ Normal rEu Reverse (Default : Normal)
Offset Value for Blower Control Setpoint BLSP	0 to 25 or 0.0 to 25.0 (Default : 0)
Auxiliary Control Hysteresis HYSt	1 to 999 or 0.1 to 999.9 (Default : 2)
Auxiliary Control Logic LOG2	norñ Normal rEu Reverse (Default : Normal)
Offset Value for Blower Control Setpoint BLSP	0 to 25 or 0.0 to 25.0 (Default : 0)

Parameters	Settings (Default Value)
Blower Control Hysteresis BLHY	1 to 25 or 0.1 to 25.0 (Default : 2)
Blower Control Time Delay tDLy	0.00 to 10.00 Min. Sec (in steps of 5 Seconds) (Default : 0.00)
Output-3 Function Selection OP3F	nonE None ALrñ Alarm EOP End Of Profile rEC Recorder (Default : Alarm)
Alarm-2 Logic A2LG	norñ Normal rEu Reverse (Default : Normal)
OP3 Event Status OESt	On ON OFF OFF (Default : ON)
OP3 Event Time OEEt	0 to 9999 (Default : 0)
OP3 Event Time Units OEUt	SEC Seconds ñin Minutes Hour Hours (Default : Seconds)
Select PV or SP for Recorder Transmission trns	Pu Process Value SP Setpoint (Default : Process Value)
Recorder Output Type rECo	0-20 0 - 20mA 4-20 4 - 20mA 0-5 0 - 5 V 0-10 0 - 10 V (Default : 0 to 20mA)
Recorder Low rECL	Min. to Max. Range Specified for the Selected Input Type (Default : -199)
Recorder High rECH	Min. to Max. Range Specified for the Selected Input Type (Default : 1376)

ALARM PARAMETERS : PAGE 11	
Parameters	Settings (Default Value)
Alarm-1 Type AL_1	nonE None P_Lo Process Low P_Hi Process High dE Deviation Band bAnd Window Band (Default : None)
Alarm-1 Setpoint A1SP	Min. to Max. Range specified for the selected Input Type (Default : Min or Max Range)
Alarm-1 Deviation Band A1dE	-999 to 999 or -999.9 to 999.9 (Default : 5)
Alarm-1 Window Band A1bA	3 to 999 (Default : 5)
Alarm-1 Hysteresis A1HY	1 to 999 (Default : 2)
Alarm-1 Inhibit A1h	no No YES Yes (Default : No)

Parameters	Settings (Default Value)
Alarm-2 Type AL_2	nonE None P_Lo Process Low P_Hi Process High dE Deviation Band bAnd Window Band (Default : None)
Alarm-2 Setpoint A2SP	Min. to Max. Range specified for the selected Input Type (Default : Min or Max Range)
Alarm-2 Deviation Band A2dE	-999 to 999 (Default : 5)
Alarm-2 Window Band A2bA	3 to 999 (Default : 5)
Alarm-2 Hysteresis A2HY	1 to 999 (Default : 2)
Alarm-2 Inhibit A2h	no No YES Yes (Default : No)

PROFILE CONFIGURATION PARAMETERS : PAGE 16	
Parameters	Settings (Default Value)
Enabling Profile Feature PrOF	dSbL Disable EnbL Enable (Default : Disable)
Number of Segments nSEG	1 to n (n = 4, 8, 12 or 16 depending on factory configuration) (Default : n)
Number of Repeats nrPt	1 to 9999 (Default : 1)
Common Holdback CoHb	no No YES Yes (Default : Yes)
Output Off OPoF	no No YES Yes (Default : No)
'Power Fail Recovery' Strategy PrFL	Ab Abort Cont Continue (Default : Continue)

PROFILE SETTING PARAMETERS : PAGE 14	
Parameters	Settings (Default Value)
Segment Number SEGn	1 to n (n = 4, 8, 12 or 16 depending on factory configuration) (Default : 1)
Target Setpoint t_SP	Min. to Max. Range specified for the selected Input Type (Default : -199)
Time Interval t_nE	0 to 9999 Minutes (Default : 0)
Holdback Type Hbty	nonE None UP Up dn Down both Both (Default : None)
Holdback Value HbUL	1 to 999 (Default : 1)

OPERATOR PAGE PARAMETERS : PAGE 0	
Parameters	Settings (Default Value)
End of Profile Acknowledge EOPR	no No YES Yes (Default : No)
Profile Start Command St	no No YES Yes (Default : No)
Profile Abort Command Ab	no No YES Yes (Default : No)
Profile Pause Command PAUS	no No YES Yes (Default : No)
Segment Skip Command SP IP	no No YES Yes (Default : No)
(De)Activate Standby Mode Stby	no No YES Yes (Default : No)
Control Setpoint SP	Setpoint Low Limit to Setpoint High Limit (Default : -199)
Auxiliary Control Setpoint AUSP	Setpoint Low Limit to Setpoint High Limit (Default : -199)
Alarm-1 Setpoint A1SP	Throughout the range for the selected Input Type (Default : -199 For Process Low : 1376)
Alarm-1 Deviation Band A1dE	-999 to 999 (Default : 5)
Alarm-1 Window Band A1bA	3 to 999 (Default : 5)
Alarm-2 Setpoint A2SP	Throughout the range for the selected Input Type (Default : -199 For Process Low : 1376)
Alarm-2 Deviation Band A2dE	-999 to 999 (Default : 5)
Alarm-2 Window Band A2bA	3 to 999 (Default : 5)

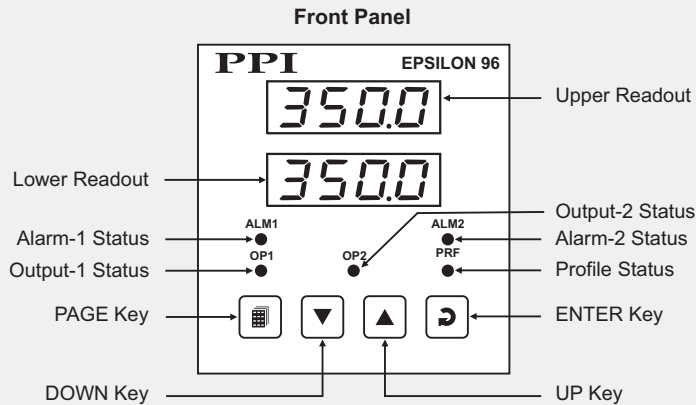
PROFILE STATUS INFORMATION : PAGE 1	
Lower Readout Prompt	Upper Readout Information
ASEG	Active Segment Number
StyP	Segment Type rARP SARP
t_SP	Target Setpoint
r_SP	Ramping Setpoint
btyñ	Balance Time
brPt	Balance Repeats

ON-LINE ALTERATION PARAMETERS : PAGE 2	
Parameters	Effect on the running segment
Time Interval t_nE	RAMP :- Altering the time interval shall immediately affect the 'Ramp Rate' for the current segment. SOAK :- Elapsed time so far is ignored and the soak timer starts counting down to 0 from the altered time interval value.
Holdback Type Hbty	The modified Holdback Band Type is applied immediately on the current segment.
Holdback Value HbUL	The modified Holdback Band Value is applied immediately on the current segment.
Balance Repeats brPt	The modified repeats become the new target repeats with immediate effect.

TABLE- 1		
Option	Range (Min. to Max.)	Resolution
 J Type T/C	0 to +960°C / +32 to +1760°F	Fixed 1°C / 1°F
 K Type T/C	-200 to +1376°C / -328 to +2508°F	
 T Type T/C	-200 to +385°C / -328 to +725°F	
 R Type T/C	0 to +1770°C / +32 to +3218°F	
 S Type T/C	0 to +1765°C / +32 to +3209°F	
 B Type T/C	0 to +1825°C / +32 to +3218°F	
 N Type T/C	0 to +1300°C / +32 to +2372°F	
	Reserved for customer specific Thermocouple type not listed above.	
 RTD Pt100	-199 to +600°C / -328 to +1112°F or -199.9 to 600.0°C / -199.9 to 999.9°F	User settable 1°C / 1°F or 0.1°C / 0.1°F
 0 to 20mA DC	-1999 to +9999 units	User settable 1 / 0.1 / 0.01 / 0.001 units
 4 to 20mA DC		
 0 to 50mV DC		
 0 to 200mV DC		
 0 to 1.25V DC		
 0 to 5.0V DC		
 0 to 10.0V DC		
 1 to 5.0V DC		



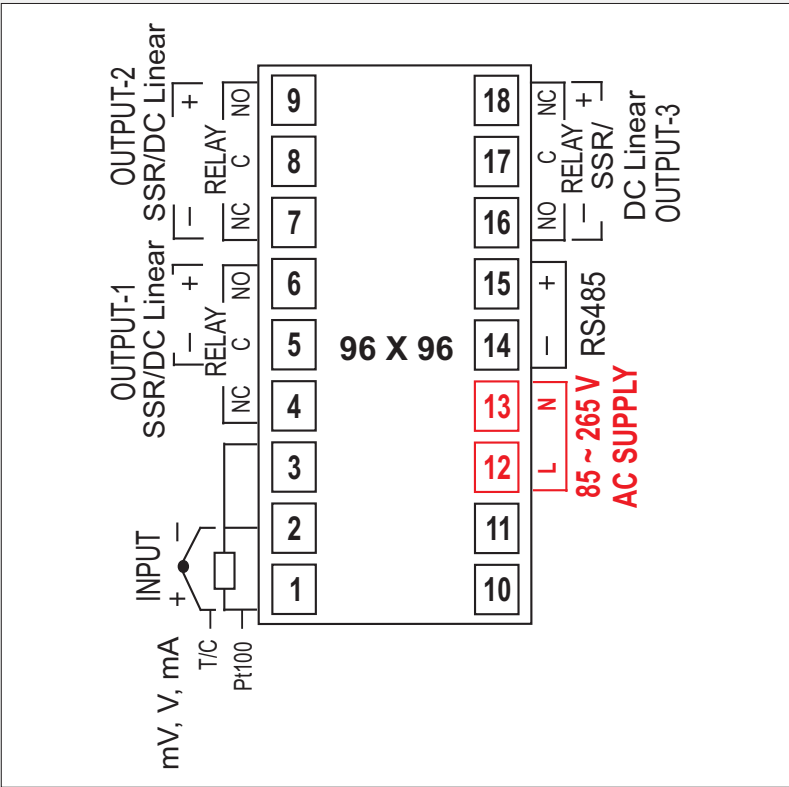
FRONT PANEL LAYOUT



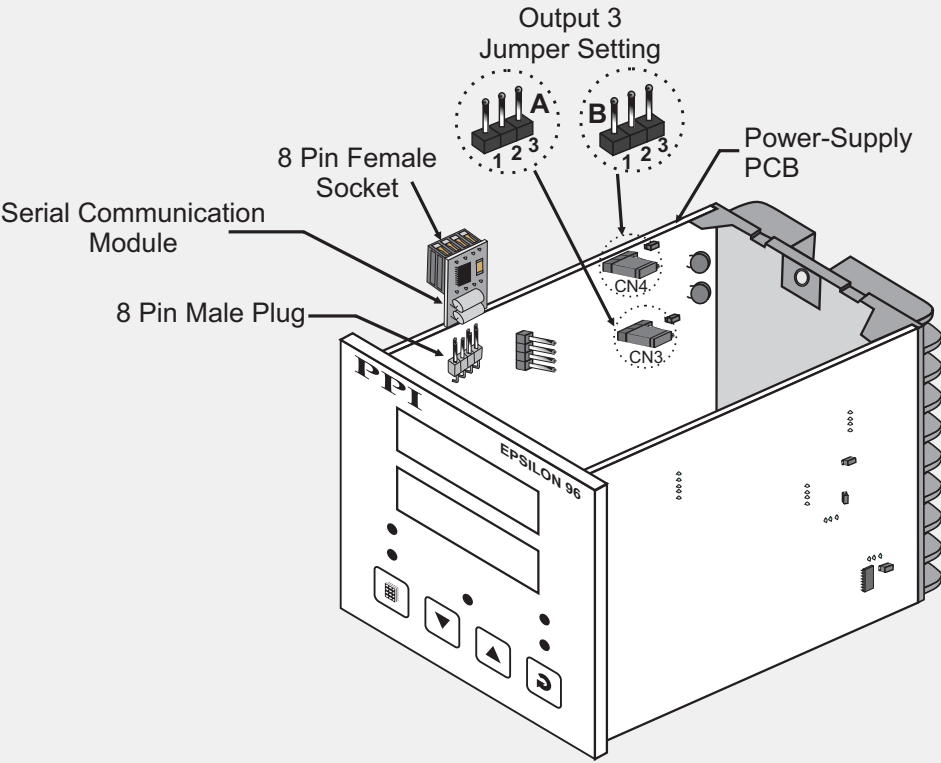
Keys Operation

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; keeping 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.

ELECTRICAL CONNECTIONS



SERIAL COMMUNICATION MODULE



INPUT & OUTPUT HARDWARE JUMPER SETTINGS

Input

Input Type	Jumper 'A' Setting
Thermocouple, RTD Pt100, mV & V	
DC Linear Current (mA)	

Output-1

Output Type	Jumper Setting - B	Jumper Setting - C
Relay		
SSR Drive		
DC Linear Current (or Voltage)		

Output-2

Output Type	Jumper Setting - D	Jumper Setting - E
Relay		
SSR		

Output-3

Output Type	Jumper Setting - A	Jumper Setting - B
Relay		
SSR		

