

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 : PAGE 12			
Parameters	Settings (Default Value)		
Control Action CAct	On-Off Pulse PID (Default : PID)		
Control Logic CtrL	Reverse Direct (Default : Reverse)		
Setpoint Low Limit SPLo	Min. Range to Setpoint High for the selected Input Type (Default : -199)		
Setpoint High Limit SPHi	Setpoint Low to Max. Range for the selected Input Type (Default : 1376)		
Sensor Break Output Power % SbOP	0 to 100 (Default : 0)		
Input Type inpT	Refer Table 1 (Default : Type K)		
PV Units Unit	°C °F (Default : °C)		
Signal Low SLo	Input Type	Settings	Default
	0 to 20 mA	0.00 to Signal High	0.00
	4 to 20 mA	4.00 to Signal High	4.00
	0 to 80 mV	0.00 to Signal High	0.00
	Reserved	0.0 to Signal High	0.0
	0 to 1.25 V	0.000 to Signal High	0.000
	0 to 5 V	0.000 to Signal High	0.000
	0 to 10 V	0.00 to Signal High	0.00
Signal High SHi	Input Type	Settings	Default
	0 to 20 mA	Signal Low to 20.00	20.00
	4 to 20 mA	Signal Low to 20.00	20.00
	0 to 80 mV	Signal Low to 80.00	80.00
	Reserved	Signal Low to 80.00	80.00
	0 to 1.25 V	Signal Low to 1.250	1.250
	0 to 5 V	Signal Low to 5.000	5.000
	0 to 10 V	Signal Low to 10.00	10.00
PV Resolution rSLn		Refer Table 1 (Default : 1)	
PV Range Low rLo		-1999 to 9999 (Default : 0)	
PV Range High rHi		-1999 to 9999 (Default : 1000)	
Offset for PV OFSt		For DC mA/mV/V : 1 to 9999 counts For Thermocouples/RTD : 1 to 999 or 0.1 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.)	

CONTROL PARAMETERS : PAGE 10	
Parameters	Settings (Default Value)
Proportional Band Pb	1 to 9999 counts (Default : 500)
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.)

Parameters	Settings (Default Value)
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 9999 counts (Default : 2)
Pulse Time PLt	Pulse ON Time to 120.0 Seconds (Default : 2.0 sec.)
Pulse On Time OnT	0.1 to Value set for Pulse Time (Default : 1.0)
Cool Hysteresis CHYS	1 to 9999 counts (Default : 2)
Cool Pulse Time CPLt	Cool ON Time to 120.0 Seconds (Default : 2.0)
Cool Pulse ON Time COnT	0.1 to Value set for Cool Pulse Time (Default : 1.0)
Heat Power Low PL	0 to Heat Power High (Default : 0)
Heat Power High PH	Heat 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)

SUPERVISORY PARAMETERS : PAGE 13	
Parameters	Settings (Default Value)
Self-Tune Command tUnE	No Yes (Default : No)
Overshoot Inhibit oS, h	Disable Enable (Default : Disable)
Overshoot Inhibit Factor OhF	1.0 to 2.0 (Default : 1.0)
SP Adjustment on Lower Readout SPLr	Disable Enable (Default : Enable)
SP Adjustment on Operator Page SPoP	Disable Enable (Default : Enable)
Manual Mode HRnd	Disable Enable (Default : Disable)
Alarm SP Adjustment on Operator Page ALSP	Disable Enable (Default : Disable)
Standby Mode StbY	Disable Enable (Default : Disable)
Profile Abort Command on Page - 1 Abrt	Disable Enable (Default : Disable)

Parameters	Settings (Default Value)
Baud Rate bAud	24 2400 48 4800 96 9600 192 19200 384 38400 576 57600 (Default : 9.6)
Communication Parity PAR,.	None Even Odd (Default : Even)
Controller ID Number id	1 to 127 (Default : 1)
Communication Write Enable ConE	No Yes (Default : No)

OP1, OP2 & OP3 FUNCTION PARAMETERS : PAGE 15	
Parameters	Settings (Default Value)
Output-1 Type OP1t	Relay SSR 0-20mA 4-20mA 0-5 V 0-10 V (Default : Relay)
Output-2 Function Selection OP2F	None Alarm End of Profile Cool Control (Default : None)
Alarm-1 Logic ALLG	Normal Reverse (Default : Normal)
Output-2 Type OP2t	Relay SSR 0-20mA 4-20mA 0-5 V 0-10 V (Default : Relay)
OP2 Event Status O2ES	ON OFF (Default : ON)
OP2 Event Time Units O2Ut	Seconds Minutes Hours (Default : Seconds)
OP2 Event Time O2Et	0 to 9999 (Default : 0)

Parameters	Settings (Default Value)
Output-3 Function Selection OP3F	None Alarm-2 End of Profile Recorder (Default : Alarm)
Alarm-2 Logic A2LG	Normal Reverse (Default : Normal)
OP3 Event Status O3ES	ON OFF (Default : ON)
OP3 Event Time Units O3Ut	Seconds Minutes Hours (Default : Seconds)
OP3 Event Time O3Et	0 to 9999 (Default : 0)
Recorder Output Type RECo	0-20mA 4-20mA 0-5 Volts 0-10 Volts (Default : 0 to 20mA)

ALARM AND RETRANSMISSION (RECORDER) PARAMETERS : PAGE 11	
Parameters	Settings (Default Value)
Alarm-1 Type AL_1	None Process Low Process High Deviation Band Window Band (Default : None)
Alarm-1 Setpoint ALSP	Min. to Max. Range specified for the selected Input Type (Default : Min or Max Range)
Alarm-1 Deviation Band ALdE	For DC mA/mV/V : -1999 to 9999 counts For Thermocouples/RTD : -999 to 999 or -1.999 to 999.9 (Default : 5)
Alarm-1 Window Band ALbA	For DC mA/mV/V : 3 to 9999 counts For Thermocouples/RTD : 3 to 999 or 0.3 to 999.9 (Default : 5)
Alarm-1 Hysteresis ALHY	For DC mA/mV/V : 1 to 9999 counts For Thermocouples/RTD : 1 to 999 or 0.1 to 999.9 (Default : 2)
Alarm-1 Inhibit ALi h	No Yes (Default : No)
Alarm-2 Type AL_2	None Process Low Process High Deviation Band Window Band (Default : None)

Parameters	Settings (Default Value)
Alarm-2 Setpoint A2SP	Min. to Max. Range specified for the selected Input Type (Default : Min or Max Range)
Alarm-2 Deviation Band A2dE	For DC mA/mV/V : -1999 to 9999 counts For Thermocouples/RTD : -999 to 999 or -1.999 to 999.9 (Default : 5)
Alarm-2 Window Band A2bA	For DC mA/mV/V : 3 to 9999 counts For Thermocouples/RTD : 3 to 999 or 0.3 to 999.9 (Default : 5)
Alarm-2 Hysteresis A2HY	For DC mA/mV/V : 1 to 9999 counts For Thermocouples/RTD : 1 to 999 or 0.1 to 999.9 (Default : 2)
Alarm-2 Inhibit A2i h	No Yes (Default : No)
PV/SP Selection For Retransmission trnS	Process Value Setpoint (Default : Process Value)
Recorder (Retransmission) Low RECL	Min. to Max. Range Specified for the Selected Input Type (Default : -199)
Recorder (Retransmission) High RECH	Min. to Max. Range Specified for the Selected Input Type (Default : 1376)

Parameters	Settings (Default Value)
Profile mode Enable PrOF	Disable Enable (Default : Disable)
Number of Segments nSEG	1 to 16 (Default : 16)
Number of Repeats nrPt	1 to 9999 (Default : 1)
Common Holdback CoHb	No Yes (Default : Yes)
Output Off OPoF	No Yes (Default : No)
Power Fail Strategy PrFL	Abort Continue (Default : Continue)

PROFILE SETTING PARAMETERS : PAGE 14	
Parameters	Settings (Default Value)
Segment Number SEGn	1 to 16 (Default : 1)
Target Setpoint t_SP	Min. to Max. Range specified for the selected Input Type (Default : -199)
Time Interval t_i nE	0 to 9999 Minutes (Default : 0)
Holdback Type Hbty	None Up Down Both (Default : None)
Holdback Value HbUL	For DC mA/mV/V : 1 to 9999 counts For Thermocouples/RTD : 1 to 999 or 0.1 to 999.9 (Default : 1)

ON-LINE ALTERATIONS : PAGE 1	
Parameters	Settings (Default Value)
End of Profile Acknowledge EOPa	No Yes (Default : No)
Profile Start Command Strt	No Yes (Default : No)
Profile Abort Command Abrt	
Profile Pause Command PAUS	No Yes (Default : No)
Segment Skip Command SP IP	No Yes (Default : No)
Segment Time Interval t_i nE	0 to 9999 Minutes
Segment Holdback Type Hbty	None Up Down Both
Segment Band Value HbUL	For DC mA/mV/V : 1 to 9999 counts For Thermocouples/RTD : 1 to 999 or 0.1 to 999.9
Profile Repeat Counter brPt	1 to 9999

Parameters	Settings (Default Value)
(De)Activate Standby Mode StbY	No Yes (Default : No)
Control Setpoint SP	Setpoint Low Limit to Setpoint High Limit (Default : -1999)
Alarm-1 Setpoint ALSP	Min. to Max. Range specified for the selected Input Type (Default : Min or Max Range)
Alarm-1 Deviation Band ALdE	For DC mA/mV/V : -1999 to 9999 counts For Thermocouples/RTD : -999 to 999 or -1.999 to 999.9 (Default : 0)
Alarm-1 Window Band ALbA	For DC mA/mV/V : 3 to 9999 counts For Thermocouples/RTD : 3 to 999 or 0.3 to 999.9 (Default : 0)
Alarm-2 Setpoint A2SP	Same as that for Alarm-1 above but applied to Alarm-2.
Alarm-2 Deviation Band A2dE	
Alarm-2 Window Band A2bA	
Auxiliary Control Setpoint AUSP	Setpoint Low Limit to Setpoint High Limit (Default : -1999)

REMOTE SETPOINT PARAMETERS : PAGE-17	
Parameters	Settings (Default Value)
Remote Setpoint Feature Enable rSEn	No (disable) Yes (enable) (Default : No)
Remote Setpoint Input Signal Type rSSo	0-20mA 4-20mA 0-5 Volts 0-10 Volts (Default : 0 to 20mA)
Remote Setpoint Range Low rSLo	Min. Range for the selected Input Type to Remote Setpoint Range High (Default : -199)
Remote Setpoint Range High rSHi	Remote Setpoint Range Low to Max. Range for the selected Input Type (Default : 1376)

TABLE- 1		
Option	Range (Min. to Max.)	Resolution
EC-J J Type T/C	0 to +960°C / +32 to +1760°F	Fixed 1°C / 1°F
EC-K K Type T/C	-200 to +1376°C / -328 to +2508°F	
EC-T T Type T/C	-200 to +385°C / -328 to +725°F	
EC-R R Type T/C	0 to +1770°C / +32 to +3218°F	
EC-S S Type T/C	0 to +1765°C / +32 to +3209°F	
EC-B B Type T/C	0 to +1825°C / +32 to +3092°F	
EC-N N Type T/C	0 to +1300°C / +32 to +2372°F	
RESu	Reserved for customer specific Thermocouple type not listed above.	
rtd 3-wire, 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
0-20 0 to 20mA DC		User settable 1 / 0.1 / 0.01/ 0.001 units
4-20 4 to 20mA DC		
0080 0 to 80mV DC		
RESu Reserved		
1.25 0 to 1.25V DC		
5.0 0 to 5.0V DC		
10.0 0 to 10.0V DC		
1-5 1 to 5.0V DC		

FRONT PANEL LAYOUT

Front Panel

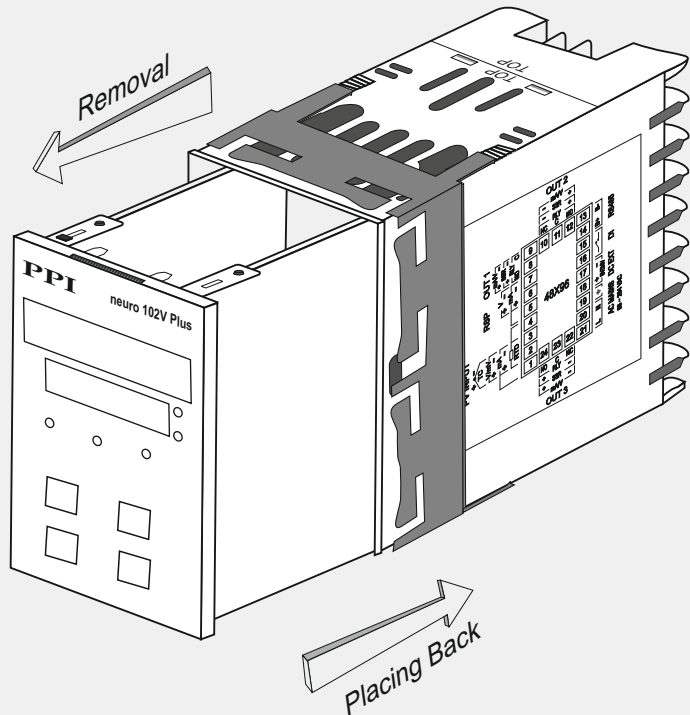
Keys Operation

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

PV Error Indications

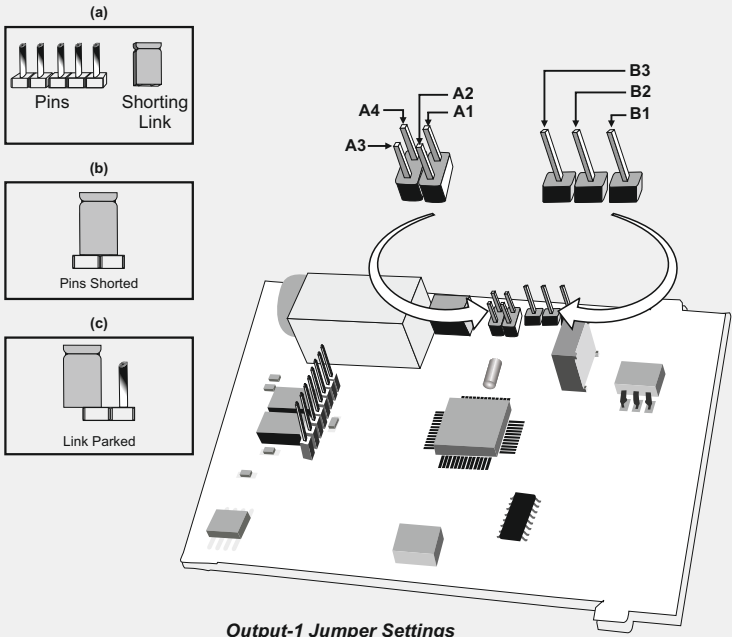
Message	PV Error Type
	Over-range (PV above Max. Range)
	Under-range (PV below Min. Range)
	Open (Sensor open / broken)

ENCLOSURE ASSEMBLY



JUMPER SETTINGS

OUTPUT-1

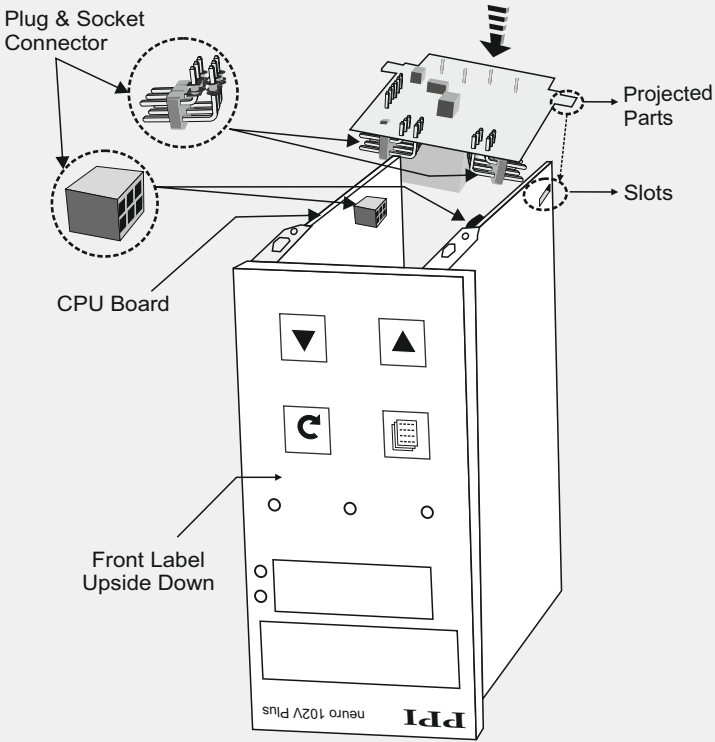


Output-1 Jumper Settings

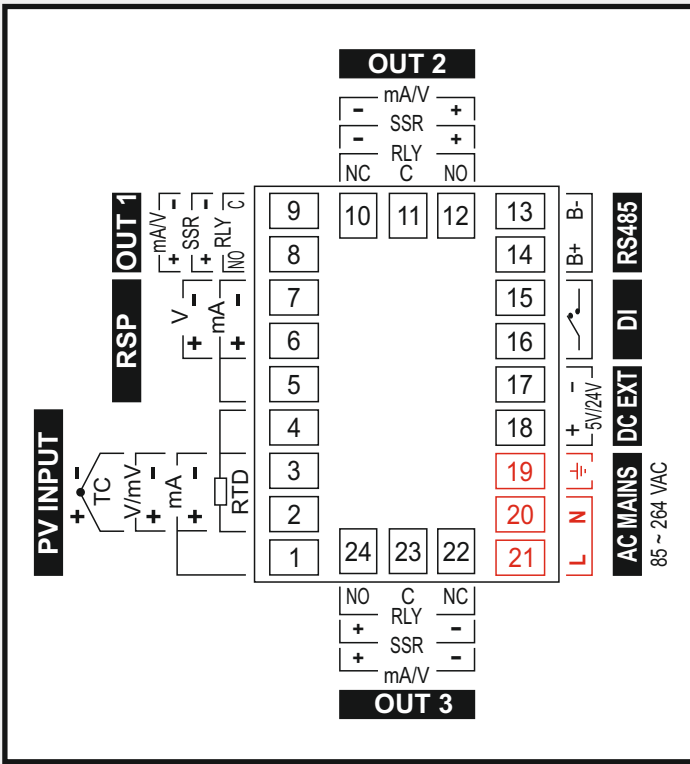
Output Type	Jumper Settings
Relay	Shorting Link A : Short Pins A1 & A4 Shorting Link B : Park
SSR Drive	Shorting Link A : Short Pins A3 & A4 Shorting Link B : Short Pins B2 & B3
DC Linear Current (or Voltage)	Shorting Link A : Short Pins A2 & A3 Shorting Link B : Short Pins B1 & B2

MOUNTING DETAILS

OUTPUT-3 MODULE

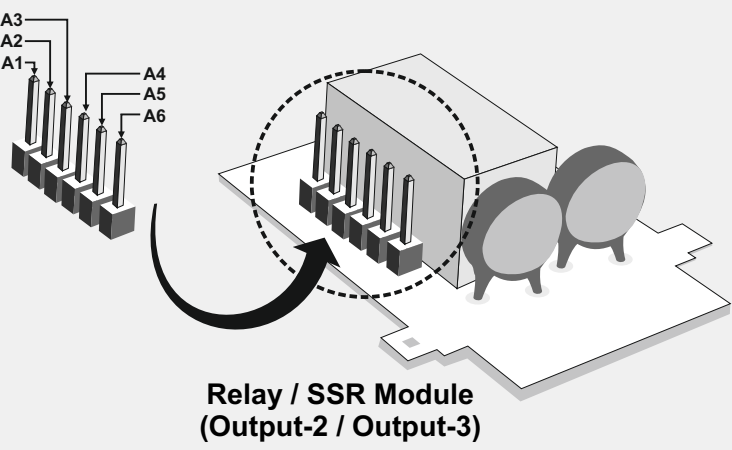


ELECTRICAL CONNECTIONS



JUMPER SETTINGS

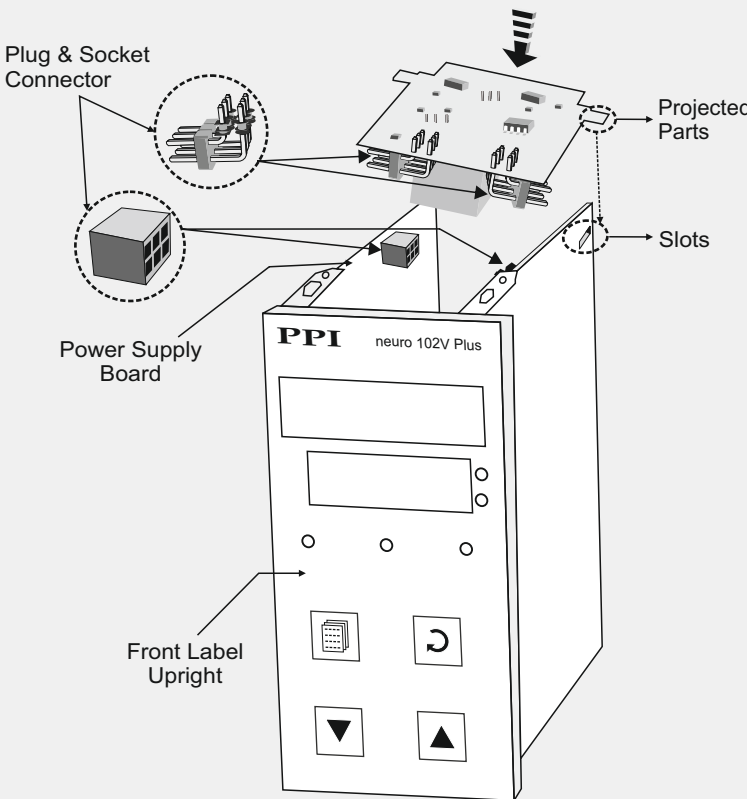
OUTPUT-2 & 3



Output Type	Jumper Setting (Used 2 Short Links)
Relay	Short pins A2 & A3 and Short pins A5 & A6
SSR	Short pins A1 & A2 and Short pins A4 & A5

MOUNTING DETAILS

OUTPUT-2 MODULE



MOUNTING DETAILS

SERIAL COMM. MODULE

