

Clavex Plus (PC + PRINTER)

Advanced Autoclave Controller with Recording + 4 Channel Mapping
+ Pressure Indication with PC Software & Printer Interface

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

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OPERATOR PARAMETERS	
Parameter	Settings (Default Value)
Select Prnt Option>>	None Print (New) Re-Print (Old) (Default : None)
Ster. Temp SP>>	Setpoint LO Limit to Setpoint HI Limit (Default : 121.0 °C)
Air Outlet SP>>	Setpoint LO Limit to Setpoint HI Limit (Default : 100.0 °C)
Ster. Time (min)>>	1 to 999 (Default : 20 min)
Change Password >>	1 to 100 (Default : 0)

SUPERVISORY > DEVICE	
Parameter	Settings (Default Value)
Rec. Interval (sec) >>	1 to 300 Sec (Default : 60 Sec.)
RTC Time >>	0 to 23 for Hour 0 to 59 for Min (Default : NA)
RTC Date >>	1 to 31 (Default : NA)
RTC Month >>	1 to 12 (Default : NA)
RTC Year >>	2000 to 2099 (Default : NA)
Device Id >>	1 to 127 (Default : 1)

SUPERVISORY > CONTROL	
Parameter	Settings (Default Value)
Setpoint LO Limit >>	0 to Setpoint HI Limit (Default : 90 °C)
Setpoint HI Limit >>	Setpoint LO Limit to 600 °C (Default : 150 °C)
Overshoot Temp >>	Ster. Temp SP to Setpoint HI Limit (Default : 131 °C)
Ctrl PV Strategy >>	PV on Map-1 Average PV PV Map1 Fail-average PV Min Max (Default : PV on Map-1)
Cycle End Strategy >>	Immediate Stop Timer Based Stop Temp Based Stop (Default : Immediate Stop)
Cycle End Timer >>	1 to 60 Minutes (Default : 5 Min)
Cycle End Temp >>	Setpoint LO Limit To Sterilization Temp (Default : 100 °C)
Ctrl Band >>	0.1 to 99.9 (Default : 0.2 °C)
EOP Alm Time(sec) >>	0 to 250 Sec. (Default : 10 Sec)
Hold Pressure >>	Min. to Max. Pressure Range set for the Pressure Sensor (Default : 15 psi)

SUPERVISORY > STERILIZATION	
Parameter	Settings (Default Value)
Steri. Stop Temp >>	Air Outlet SP to Sterilization Temp (Default : 120.5 °C)
Steri. Reset Temp >>	Air Outlet SP to Sterilization Temp (Default : 120.0 °C)

SUPERVISORY > PV OFFSET	
Parameter	Settings (Default Value)
Pressure Offset >>	-50.0 to 50.0 (Default : 0)
Map-1 Offset >>	-50.0 to 50.0 (Default : 0)
Map-2 Offset >>	-50.0 to 50.0 (Default : 0)
Map-3 Offset >>	-50.0 to 50.0 (Default : 0)
Map-4 Offset >>	-50.0 to 50.0 (Default : 0)

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

SUPERVISORY > PRINTER SETTING	
Parameters	Settings (Default Value)
Line Per Page >>	25 to 100 (Default : 60)
Top Margine >>	1 to 5 (Default : 2)
Bottom Margine >>	1 to 5 (Default : 2)
Header & Footer >>	No On First Page Every Page (Default : No)
Enable >>	Yes No (Default : No)

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

FACTORY > TEMPERATURE INPUT				
Parameters		Settings (Default Value)		
Mapping Channles >>		1 to 4 (Default : 4)		
Input Type >>		RTD Pt100 0-20mA 4-20mA 0-5V 0-10V 1-5V (Default : RTD Pt100)		
Signal LO >>		Input Type	Settings	Default
		0 to 20mA	0.00 to Signal High	0.00
		4 to 20mA	4.00 to Signal High	4.00
		0 to 5V	0.000 to Signal High	0.000
		0 to 10V	0.00 to Signal High	0.00
		1 to 5V	1.000 to Signal High	1.000

Signal HI >>	Input Type	Settings	Default
	0 to 20mA	Signal Low to 20.00	20.00
	4 to 20mA	Signal Low to 20.00	20.00
	0 to 5V	Signal Low to 5.000	5.000
	0 to 10V	Signal Low to 10.00	10.00
	1 to 5V	Signal Low to 5.000	5.000
Range LO >>	-199.9 to RANGE HI (Default : 0.0)		
Range HI >>	RANGE LO to 999.9 (Default : 100.0)		
Temp SP Offset >>	0.0 to 10.0 (Default : 0.0)		

FACTORY > PRESSURE INPUT			
Parameters	Settings (Default Value)		
Pressure Enable >>	Yes No (Default : No)		
Units >>	Psi Kg/cm² Bar Eu (Default : Psi)		
Resolution >>	0 0.1 0.01 0.001 (Default : 0.1)		
Input Type >>	0-20mA 4-20mA 0-5V 0-10V 1-5V (Default : 0-5V)		
Signal LO >>	Input Type	Settings	Default
	0 to 20mA	0.00 to Signal High	0.00
	4 to 20mA	4.00 to Signal High	4.00
	0 to 5V	0.000 to Signal High	0.000
	0 to 10V	0.00 to Signal High	0.00
	1 to 5V	1.000 to Signal High	1.000
Signal HI >>	Input Type	Settings	Default
	0 to 20mA	Signal Low to 20.00	20.00
	4 to 20mA	Signal Low to 20.00	20.00
	0 to 5V	Signal Low to 5.000	5.000
	0 to 10V	Signal Low to 10.00	10.00
	1 to 5V	Signal Low to 5.000	5.000
Range LO >>	-1999 to RANGE HI (Default : 0.0)		
Range HI >>	RANGE LO to 9999 (Default : 100.0)		

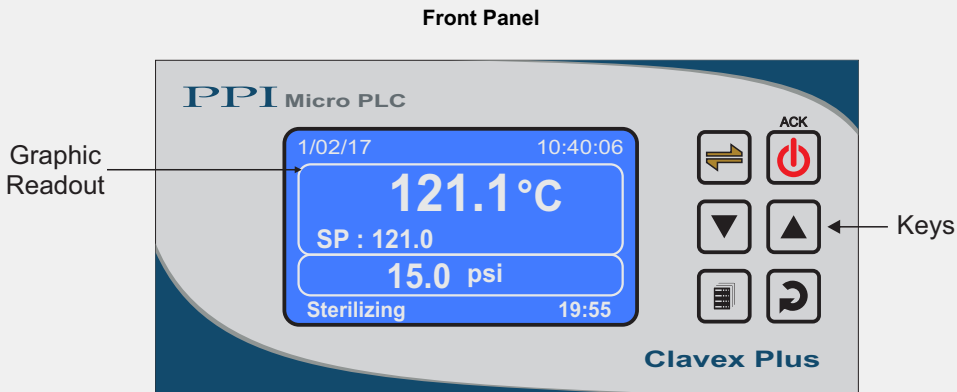
FACTORY > DIGITAL INPUTS	
Parameter	Settings (Default Value)
Remote Cycle Start >>	Yes No (Default : No)
Water Level Detect >>	Yes No (Default : No)
Water Level Logic >>	Open : Water Lo Close : Water Lo (Default : Close : Water Lo)
Door Open Detect >>	Yes No (Default : No)
Door Open Logic >>	Close : Door Open Open : Door Open (Default : Close : Door Open)

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

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

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

FRONT PANEL LAYOUT



Keys Operation

Symbol	Key	Function
	Scroll	Press to scroll through various Process Information Screens in Normal Operation Mode.
	Cycle Start & Alarm Acknowledge	Press to Start / Abort Autoclave Cycle. In case of process under alarm condition, press to acknowledge and mute the 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.

PV Error Indications

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

ELECTRICAL CONNECTIONS

