

Clavex GD

Vertical Autoclave Controller
with Graphic Display

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)
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 (HH:MM) >>	0.01 to 99.59 (HH:MM) (Default : 00.10 min)
Change Password >>	1 to 100 (Default : 0)

SUPERVISORY > SERIAL PARAMETERS	
Parameter	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 >>	No, Yes (Default : No)

SUPERVISORY > CONTROL	
Parameter	Settings (Default Value)
Setpoint LO Limit >>	0 to Setpoint HI Limit (Default : 90 °C)
Setpoint HI Limit >>	Setpoint LO Limit to 600.0 °C (Default : 150.0 °C)
Overshoot Temp >>	Sterilization SP to Control SP HI (Default : 131 °C)
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 >>	Control SP LO to Sterilization SP (Default : 100.0 °C)
Ctrl Band >>	0.1 to 99.9 (Default : 0.2 °C)
EOP Alarm Time (sec) >>	0 to 250 Sec. (Default : 10 Sec)

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

SUPERVISORY > PV OFFSET	
Parameter	Settings (Default Value)
Temp Zero Offset >>	-50.0 to 50.0 (Default : 0)
Pressure Offset >>	-500 to 500 Counts (Default : 0.0)

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 > TEMPERATURE INPUT	
Parameter	Settings (Default Value)
Filter Constant >>	0.5 to 60.0 Sec. (Default : 0.5 Sec.)
Temperature SP Offset >>	0.0 to 10.0 °C (Default : 0.0 °C)

FACTORY > PRESSURE INPUT	
Parameters	Settings (Default Value)
Pressure Indication >>	None, Computed, Measured (Default : None)

FACTORY > PRESSURE INPUT	
Parameters	Settings (Default Value)
Units >>	PSI, KG/CM ² , BAR, EU (Default : PSI)
Resolution >>	1, 0.1, 0.01, 0.001 (Default : 0.1)

Parameter	Settings (Default Value)												
Input Type >>	0-20mA, 4-20mA, 0-5V, 0-10V, 1-5V (Default : 0-5V)												
Signal LO >>	<table border="1"> <thead> <tr> <th>Input Type</th> <th>Settings</th> </tr> </thead> <tbody> <tr> <td>0 to 20 mA</td> <td>0.00 to 20.00</td> </tr> <tr> <td>4 to 20 mA</td> <td>4.00 to 20.00</td> </tr> <tr> <td>0 to 5 V</td> <td>0.000 to 5.000</td> </tr> <tr> <td>0 to 10 V</td> <td>0.00 to 10.00</td> </tr> <tr> <td>1 to 5 V</td> <td>1.000 to 5.000</td> </tr> </tbody> </table>	Input Type	Settings	0 to 20 mA	0.00 to 20.00	4 to 20 mA	4.00 to 20.00	0 to 5 V	0.000 to 5.000	0 to 10 V	0.00 to 10.00	1 to 5 V	1.000 to 5.000
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Range LO >>	0 to 9999 Counts (Default : 0.0)												
Range HI >>	0 to 9999 Counts (Default : 100.0)												

FACTORY > DIGITAL INPUTS	
Parameter	Settings (Default Value)
Remote Cycle Start >>	No, Yes (Default : No)
Water Level Detect >>	No, Yes (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 >>	No, Yes (Default : No)

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

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

FRONT PANEL LAYOUT

Graphic Readout

Keys

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	RTD Pt100 / Thermocouple is Broken / Open
OVR	Over-range	Temperature above Max. Specified Range
UNR	Under-range	Temperature below Min. Specified Range

ELECTRICAL CONNECTIONS

EXT. VOLTAGE

ANALOG INPUT CONNECTIONS

ANALOG INPUT

AI-1 : RTD Pt100 Sensor
AI-2 : Pressure Sensor

DIGITAL OUTPUT

DO-1 : Heater Control
DO-2 : Air Valve Control
DO-3 : Event Alarm
DO-4 : Unused
DO-5 : Unused
DO-6 : Unused

DIGITAL INPUT

DI-1 : Cycle Start
DI-2 : Door Open
DI-3 : Water Level
DI-4 : Alarm ACK
DI-5 : Unused
DI-6 : Unused

SERIAL COMM

B+ B-
RS485

85~265VAC

L N
21 22

SUPPLY