OP3110-V02

selec **PIC101B-VI**
Operating Instructions



48 x 96

PARAMETERS	SPECIFICATIONS
Display	4 digits (White) White Display:- 0.56" 7 segment digital display
Keys	3 keys for digital setting
INPUT SPECIFICATIONS	
Input Signal	Voltage : 0 - 10V DC Current : 0 - 20mA DC 4 - 20mA DC
Sampling time	250 msec
Input Filter (FTC)	0.2 to 9.9 sec
Resolution	Decimal point position selectable 1/0.1/0.01/0.001
Indication Accuracy	±0.5% of F.S., ±1 digit (F.S. = Full Scale)
POWER SUPPLY SPECIFICATIONS	
Supply Voltage	85 to 270V AC / DC (AC : 50 / 60 Hz)
	24V DC, 5 VA max
Power Consumption	5 VA max@270V AC
Temperature	Operating : 0 to 50°C Storage : -20 to 75°C
Humidity	95% RH (non-condensing)
Weight	100 gms (0.220 lbs)
Protection Level	IP65 for faceplate

SAFETY PRECAUTIONS

All safety related codifications, symbols and instructions that appear in this operating manual or on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument.

If the equipment is not handled in a manner specified by the manufacturer it might impair the protection provided by the equipment.

Read complete instructions prior to installation and operation of the unit.

WARNING : Risk of electric shock.

WIRING GUIDLINES

CAUTION:

1. To prevent the risk of electric shock power supply to the equipment must be kept OFF while doing the wiring arrangement. Do not touch the terminals while power is being supplied.
2. To eliminate electromagnetic interference use short wire with adequate ratings; twists of the same in equal size shall be made. For the input and output signal lines, be sure to use shielded wires and keep them away from each other.
3. Cable used for connection to power source, must have a cross section of 1mm^2 or greater. These wires shall have insulation capacity made of at least 1.5kV.
4. A better anti-noise effect can be expected by using standard power supply cable for the instrument.

MAINTENANCE

1. The equipment should be cleaned regularly to avoid blockage of ventilating parts.
2. Clean the equipment with a clean soft cloth. Do not use Isopropyl alcohol or any other cleaning agent.

INSTALLATION GUIDELINES

CAUTION

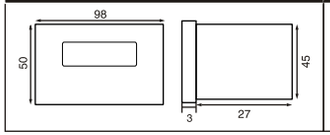
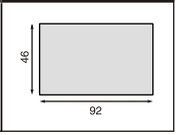
1. This equipment, being built-in-type, normally becomes a part of main control panel and in such case the terminals do not remain accessible to the end user after installation and Internal wiring.
2. Do not allow pieces of metal, wire clippings, or fine metallic fillings from installation to enter the product or else it may lead to a safety hazard that may in turn endanger life or cause electrical shock to the operator.
3. Circuit breaker or mains switch must be installed between power source and supply terminals to facilitate power 'ON' or 'OFF' function. However this switch or breaker must be installed in a convenient position normally accessible to the operator.
4. Use and store the temperature controller within the specified ambient temperature and humidity ranges as mentioned in this manual.

CAUTION

1. When powering up for the first time, disconnect the output connections.
2. Fuse Protection : The unit is normally supplied without a power switch and fuses. Make wiring so that the fuse is placed between the mains power supply switch and the controller. (2 pole breaker fuse - rating : 275V AC,1A for electrical circuitry is highly recommended)
3. Since this is a built-in-type equipment (finds place in main control panel), its output terminals get connected to host equipment. Such equipment shall also comply with basic EMI/EMC and other safety requirements like BSEN61326-1 and BSEN 61010 respectively.
4. Thermal dissipation of equipment is met through ventilation holes provided on chassis of equipment. Such ventilation holes shall not be obstructed else it can lead to a safety hazard.
5. The output terminals shall be strictly loaded to the manufacturer specified values / range.

MECHANICAL INSTALLATION

For installing the controller

Outline Dimensions (in mm)	Panel Cutout (in mm)
	

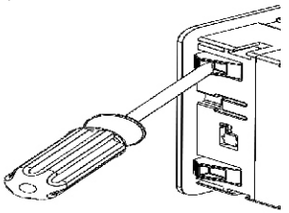
1. Prepare the panel cutout with proper dimensions as shown above.
2. Fit the unit into the panel (Self locking mechanism).
3. The equipment in its installed state must not come in close proximity to any heating sources, caustic vapors, oils, steam or other unwanted process by-products.
4. Do not connect anything to unused terminals.
5. Use minus type screw driver to remove unit from the panel. Put screw driver in the cavity of clamp and gently push outside.

PANEL THICKNESS

0.5mm(minimum) and 2.5mm(maximum)

HOW TO REMOVE SELF-LOCKING CLAMP

Use small minus type screw driver to remove Unit from panel. Insert Screw Driver in a cavity of Self-locking clamp as shown in below figure. Gently press clamp inside from one side first and press unit out of the Panel and then Press clamp from Second side to remove complete unit.



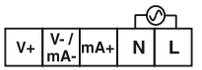
EMC GUIDELINES

1. Use proper input power cables with shortest connections and twisted type.
2. Layout of connecting cables shall be away from any internal EMI source.

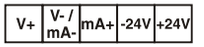
ELECTRICAL PRECAUTIONS DURING USE

Electrical noise generated by switching of inductive loads can create momentary discruption, erratic display, latch up, data loss or permanent damage to the instrument.

To reduce noise :
A) Use separate shielded wires for inputs



PIC101B-VI



PIC101B-VI-24V

FRONT PANEL DESCRIPTION



FRONT KEYS DESCRIPTION

Functions	Key press
Programming Mode	
To view Configuration Level	Press ▲ keys for 3 seconds.
To view parameters on the same level.	Key once to register/ view the next function in operational menu.
To set parameter ranges.	▲ Key to scroll through the function ranges (ranging 0 to 9)
To select digit	➤ Key to select digit from MSD to LSD

NOTE : The unit will auto exit programming mode after 30sec. of inactivity.
OR By pressing the ▭ keys for 3 seconds.

When an error has occured, the display indicates error codes as given below.

Error	Meaning
OVER	Sensor break / over range condition
rEUr	Sensor reverse / under range condition

CONFIGURATION INSTRUCTIONS

KEY FUNCTIONS

- ▲ → Press once to scroll parameter ranges
- ▲ → Press for 3 sec to enter Configuration menu (from online)
- ➤ → Press to shift the digit
- ▢ → Press to set parameter value and move to next parameter
- ▢ → Press for 3 sec. to exit the Configuration menu

OPERATIONAL MENU

POWER ON



Display (for 1sec.)	Description	Default Value	Range	Display Condition
CodE	Lock code	0000	Factory Set = 0085	For PSWD = LOCK
InPt	Input type	4mA	0-20 mA / 4-20 mA 0-10 V	—
PESL	Decimal point selectable	1	1/0.1/0.01/0.001	—
d.SC.L	Display scaling point low[1]	0000	-1999 to DSCH	—
I.SC.L	Input scaling point low	4.00	0.0/4.0 mA OR 0V to ISCH	—
d.SC.H	Display scaling point high	9999	DSCL to 9999	—
I.SC.H	Input scaling point high	20.00	ISCL to 20.00mA/ 10.00V	—
rEU	Reverse scaling	no	NO / YES	—
FtC	Filter time constant	1.0	0.2 to 9.9 sec.	—
PSWd	Password[2]	UNLK	UNLK/LOCK	—
rSt	Factory default[3] (Reset all)	no	NO / YES	—

NOTE :

1) For MSD by pressing ▲ key the values are scrolled from 0 to 9 and then '-' and '-1' then return to 0. Rest all the digit are scrolled between 0 to 9
2) If in configuration menu [PSWd] is selected as [LOCK] then the [CodE] will prompted at power ON.
3) To reset the parameters to factory default , select [rSt] as [YES] Press ▢ Key [done]
   Press ▢ key again to move to next parameter [InPt]
4) For Invalid setting the parameter will prompt again with last valid setting.
   Applicable for parameters such as [FtC] , [d.SC.L] , [d.SC.H] , [I.SC.L] & [I.SC.H]

CALIBRATION CERTIFICATE

Model No : PIC101B-VI

Claimed Accuracy : ±0.5% of F.S., ±1 digit
(F.S. = Full Scale)

Standard used for Calibration of product is traceable to NABL

The calibration of this unit has been verified at the following values :

SENSOR	CALIBRATION VALUE (0.1Resolution)	DISPLAY VALUE
Voltage (V DC)	0.0	0.0
	10.0	10.0
Current (mA)	0.0 / 4.0	0.0 / 4.0
	20.0	20.0

Unit is accepted as accuracy is within the specified limit of claimed accuracy and certificate is valid up to one year from the date of issue

(Specifications subject to change as development is a continuous process.)

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