



48 x 96

| PARAMETERS | SPECIFICATIONS |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Display | 4 digits (Red) Red 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 | 90 to 270V AC / DC (AC : 50 / 60 Hz) |
| Power Consumption | 5 VA max@270V AC |
| Alarm Output (Relay Output) | 3A @ 250V AC or 24V DC Alarm modes : Alarm High Alarm Low |
| Sensor Supply | 24V DC supply to power the sensor (30mA) |
| Temperature | Operating : 0 to 50°C Storage : -20 to 75°C |
| Humidity | 95% RH (non-condensing) |
| Isolation Breakdown Rating | AC line with respect to inputs and Output : 2000 Volts All other inputs and output with respect to relay contacts : 2000V AC |
| Connection | Wire clamping screw terminals |
| Weight | 200 gms (0.440 lbs) |

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 GUIDELINES

CAUTION:

- 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.
- 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.
- Cable used for connection to power source, must have a cross section of 1mm² or greater. These wires shall have insulation capacity made of at least 1.5kV.
- A better anti-noise effect can be expected by using standard power supply cable for the instrument.

MAINTENANCE

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

INSTALLATION GUIDELINES

CAUTION

- 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.
- 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.
- 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.
- Use and store the temperature controller within the specified ambient temperature and humidity ranges as mentioned in this manual.

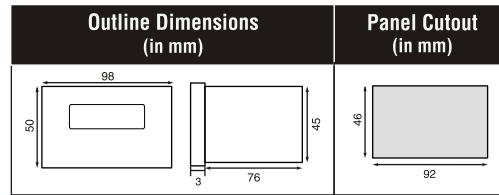
CAUTION

- When powering up for the first time, disconnect the output connections.
- 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 indicator. (2 pole breaker fuse - rating : 275V AC,1A for electrical circuitry is highly recommended)

- 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 BSEN61010 respectively.
- 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.
- The output terminals shall be strictly loaded to the manufacturer specified values / range.

MECHANICAL INSTALLATION

For installing the Indicator
Prepare the panel cutout with proper dimensions as shown (in mm) below



- Prepare the panel cutout with proper dimensions as shown above.
- 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.
- Use the specified size of crimp terminals (M3.5 screws) to wire the terminal block. Tighten the screws on the terminal block using the tightening torque with in the range of 1.2 N.m.
- Do not connect anything to unused terminals.

EMC GUIDELINES

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

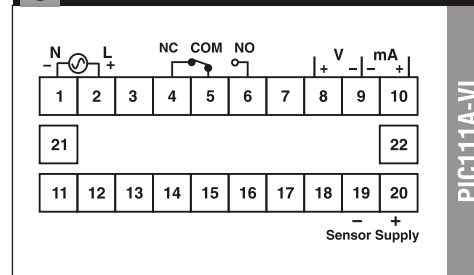
ELECTRICAL PRECAUTIONS DURING USE

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

To reduce noise :

- Use separate shielded wires for inputs

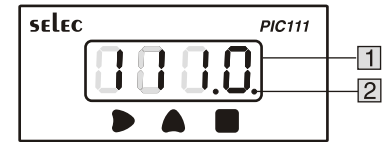
TERMINAL CONNECTIONS



TERMINAL CONNECTIONS

| TERMINAL | SYMBOL | DESCRIPTION |
|----------|-------------------|------------------------|
| 1 | N(-) | Neutral |
| 2 | L(+) | Live |
| 4 | NC | NC of Relay |
| 5 | COM | COM of Relay |
| 6 | NO | NO of Relay |
| 8 | V+ | Signal I/P 0 to 10V |
| 9 | V-/mA- | Signal I/P - |
| 10 | mA+ | Signal I/P 0/4 to 20mA |
| 19 | Sensor Supply (-) | -Ve Sensor Supply |
| 20 | Sensor Supply (+) | +Ve Sensor Supply |

FRONT PANEL DESCRIPTION



| | |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 Process-value (PV)/ Parameter name display | 1) Displays a process value (PV). 2) Displays the parameter symbols at parameter setting mode for 1 sec. and then parameter values. 3) Displays PV error conditions. |
| 2 Alarm output indication | The LED is lite when the Alarm output is ON |

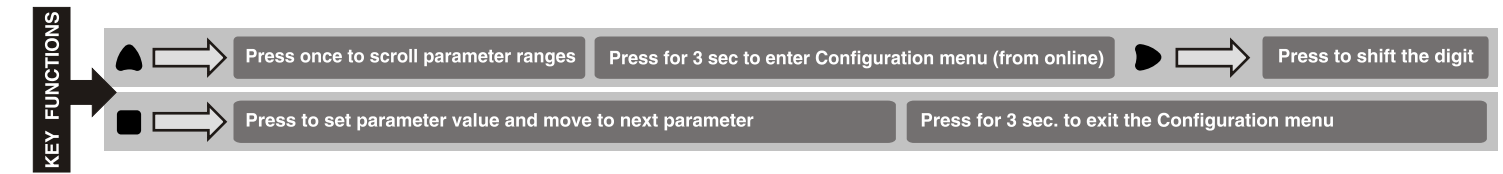
FRONT KEYS DESCRIPTION

| 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. | |

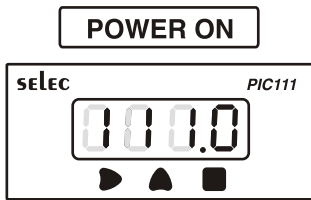
When an error has occurred, the display indicates error codes as given below.

| Error | Meaning |
|---------|-----------------------|
| 0 0 0 0 | Over range condition |
| 9 9 9 9 | Under range condition |

CONFIGURATION INSTRUCTIONS



OPERATIONAL MENU



| Display (for 1sec.) | Description | Default Value | Range | Display Condition |
|---------------------|------------------------------------------|---------------|-----------------------------|-------------------|
| LOdE | Lock code | 0000 | Factory Set = 0085 | For PSWD = LOCK |
| INPt | Input type | 4 mA | 0-20 mA / 4-20 mA 0-10 V | — |
| PEsL | Decimal point selectable | . | 1/0.1/0.01/0.001 | — |
| HA | High Alarm selectable | 9999 | LA to 9999 | — |
| LA | Low Alarm selectable | 0000 | -1999 to HA | — |
| d.SCL | Display scaling point low ¹ | 0000 | -1999 to DSCH | — |
| i.SCL | Input scaling point low | 4.00 | 0.0/4.0 mA OR 0V to ISCH | — |
| d.SCH | Display scaling point high | 9999 | DSCL to 9999 | — |
| i.SCH | 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 | — |
| PSr | Factory default ³ (Reset all) | NO | NO / YES | — |

NOTE :

- 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
- If in configuration menu [PSWd] is selected as [LOdE] then the [LOdE] will prompted at power ON.
- To reset the parameters to factory default , select [PSr] as YES Press ■ Key → [done]
Press ■ key again to move to next parameter [INPt]
- For Invalid setting the parameter will prompt again with last valid setting.
Applicable for parameters such as [FtC], [d.SCL], [d.SCH], [i.SCL] & [i.SCH]

CALIBRATION CERTIFICATE

Model No : PIC111A-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

CHECKED BY :

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

Selec Controls Pvt. Ltd., India
Factory Address :
 EL-27/1, Electronic Zone, TTC Industrial Area, MIDC, Mahape, Navi Mumbai - 400 710, INDIA.
 Tel. No. : +91-22-28476443 / 1882
 Fax No. : +91-22-28471733 | Toll free : 1800 227 353
 Website: www.selec.com | Email: sales@selec.com