selec

PIC501A-VI-230
Operating Instructions

OP497-V01



48 x 48

PARAMETER	SPECIFICATIONS
Display	4 digit, 7 segment digital display
Keys	3 keys for digital setting
INPUT SPECIFICATIONS	
Input Type	Voltage : 0 - 10V DC
	Current : 0 - 20mA and 4 - 20mA DC
Sampling time	250ms
Input Filter (FTC)	0.2 to 9.9sec.
Resolution	Decimal point position selectable : 1/0.1/0.01/0.001
Indication Accuracy	±0.5% of F.S. (F.S. = Full Scale)
POWER SUPPLY	
Supply Voltage	230V AC ± 20%, 50/60Hz
Power Consumption	3VA max @ 230V AC
Temperature	Operating : 0 to 50°C Storage : -20 to 75°C
Humidity	95% RH (non-condensing)
Weight	200 gm
Protection Level	IP65 for faceplate

SAFETY PRECAUTIONS

All safety related modifications, 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

WARNING

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

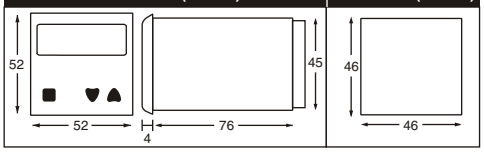
1. This equipment, being built-in-type, normally becomes a part of main control panel and in such case the terminals do not remain accessible to the end user after installation and internal wiring.
2. Do not allow pieces of metal, wire clippings or fine metallic fillings from installation to enter the 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 BSEN61010 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

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



1. Prepare the panel cutout with proper dimensions as shown above.
2. 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.
3. 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.
4. Do not connect anything to unused terminals.

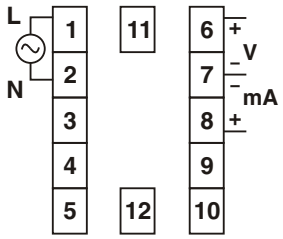
EMC GUIDELINES :

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.

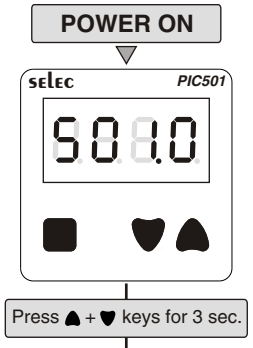
ELECTRICAL PRECAUTIONS DURING USE :

Electrical noise generated by switching of inductive loads can create momentary disruption, erratic display, latch up, data loss or permanent damage to the instrument.
To reduce noise : Use separate shielded wires for inputs.

TERMINAL CONNECTIONS



OPERATIONAL MENU



Display (for 1sec.)	Description	Default Value	Range
CodE	Lock code[5]	0000	Factory Set = 0085
INPt	Input type	4mA	0-20mA/4-20mA/ 0-10V
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	0.0/4.0mA 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 9.9sec.
PSyd	Password[2]	UNLt	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 PSyd is selected as LOCt 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, dSPb, d.SC.L, d.SC.H, I.SC.L & I.SC.H

5) CodE will be displayed only for PSWD = Lock

CALIBRATION CERTIFICATE

Date :

Model No : _____

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

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

SENSOR	CALIBRATION VALUE (0.1 Resolution)	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 : _____

ERROR DISPLAY

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

ERROR	DESCRIPTION
OVEr	Sensor break / over range condition
rEUr	Sensor reverse / under range condition

FRONT KEYS DESCRIPTION

FUNCTIONS	KEY PRESS
PROGRAMMING MODE	
To view Configuration Level	♥ + ▲ Keys for 3 seconds.
To view / register parameters value.	♥ Key for previous parameter. ▲ Key for next parameter.
To edit parameter value.	■ + ♥ To decrement selected digit. ■ + ▲ To increment selected digit.
To select digit of parameters value.	■ Key to select digit from MSD to LSD

(Specifications are subject to change, since 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. : +91-22-41 418 419/430 I Fax No. : +91-22-28471733
Toll free : 1800 227 353 (BSNL/MTNL Subscribers only)
Website : www.selec.com I Email : sales@selec.com