

# OPERATING INSTRUCTIONS

## PIC152N



### SPECIFICATIONS

#### 1. DISPLAY

4-digit (7 segment LED) 0.5" height Display Messages:

- "Or" - a) Appears when measurement exceeds display scaling range(9999) for signal inputs  
 b) When open sensor is detected. (Applicable for TC/RTD/-5 to 56mV)
- "rE" a) Appears when measurement is below display scaling range (-1999) for signal inputs.  
 B) Sensor reverse condition occurs. (Applicable for TC/RTD/mV)

Display alternating between PV and ALrM with LED of respective alarm flashing.(Programmable annunciator option)

LED Status Annunciators - Alarm ON (2 nos)

#### 2. POWER

AC Versions - 85 to 270V AC, 50 or 60 Hz, 5VA  
 DC Versions (optional) - 24V DC.

#### 3. SETTINGS

Via three keys on front panel.

#### 4. MEMORY

Nonvolatile EEPROM retains all programmable parameters and values.

#### 5. MAIN SENSOR INPUT (Universal)

##### Thermocouple inputs

- J : -200 to 750°C  
 K : -200 to 1350°C  
 T : -200 to 400°C  
 R : 0 to 1750°C  
 S : 0 to 1750°C

##### RTD input (2 wire or 3 wire)

PT100: -100 to 850°C

##### Signal inputs

- mV (linear) : - 5 to 56mV  
 Voltage: 0 - 10 VDC  
 Current: 0 - 20mA DC

#### 6. INDICATION ACCURACY

Temperature:0.25% of Span ±1°C (20min.Warmup)

Signal input: 0.05% ±1 digit

#### 7. ALARM OUTPUTS

2 nos : Relay output: 5A @ 250 VAC or 24 VDC

Alarm modes - Alarm High, Alarm Low, Band, Fault output and Fault diagnosis.

Hysteresis - Programmable.

Annunciator - Programmable.

Reset Action - Programmable: automatic or latched.

Standby Mode - Programmable: enable or disable.

#### 8. SENSOR SUPPLY

24 VDC supply to power the sensor

#### 9. LINEAR DC OUTPUT (optional)

Re-transmission: 4 to 20 mA or 0 to 5 V or 0 to 10V  
 Update rate: 100msec.

#### 10. ENVIRONMENTAL CONDITIONS

Operating Range: 0 to 50°C  
 Storage Range: -20 to 75°C  
 Humidity: 85% max.

#### 11. ISOLATION BREAKDOWN RATINGS

AC line with respect to all inputs and outputs: 2000 Volts. All other inputs and outputs with respect to relay contacts: 2000 VAC

#### 12. CONNECTION

Wire clamping screw terminals

#### 13. WEIGHT

300 grams

### SAFETY SUMMARY

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 th 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.

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

**CAUTION:** 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.
- Wiring shall be done strictly according to the terminal layout with shortest connections. Confirm that all connections are correct.
- Use lugged terminals to meet M3 screws.
- To eliminate electromagnetic interference use of short wire with adequate ratings and twists of the same in equal size shall be made.
- Cable used for connection to power source, must have a cross section of 1mm<sup>2</sup> or greater. These wires shall have insulation capacity made of at least 1.5KV.

### 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.
- Conductors must not come in contact with the internal circuitry of the equipment 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.

#### CAUTION:

- The equipment shall not be installed in environmental conditions other than those mentioned in this manual.
- Fuse Protection: The equipment does not have a built-in-type fuse. Installation of external fuse of rating 275 VAC/ 1Amp for electrical circuitry is highly recommended.

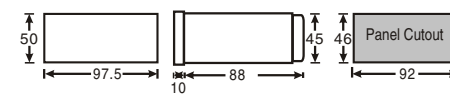
- Thermal dissipation of equipment is met through ventilation holes provided on chassis of equipment. Such ventilation holes shall not be obstructed else it can lead to a safety hazard.
- The output terminals shall be strictly loaded to the manufacturer specified values/range.

### Mechanical Installation:

For installing the controller

- Prepare the panel cutout with proper dimensions as shown

### DIMENSIONS (in mm)



- Remove clamp from the controller and push the controller into the panel cutout. Secure the controller in its place by pushing the clamp on rear side.
- For proper sealing, tighten the screws evenly with required torque.

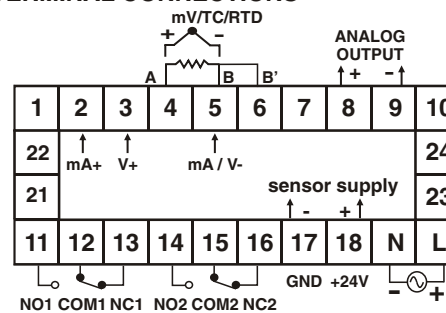
#### CAUTION:

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.

### EMC Guidelines:

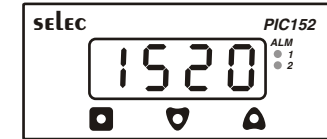
- Use proper input power cables with shortest connections and twisted type.
- Layout of connecting cables shall be away from any Internal EMI source.

### TERMINAL CONNECTIONS



TERMINAL DESCRIPTION	TERMINAL
Live	L
Neutral	N
+ve mA	2
+ve V	3
+ve mV / TC / RTD1	4
- ve mV / TC- / RTD 2 / -ve mA / - ve V	5
+ve analog output	8
-ve analog output	9
NO for relay1	11
COM for relay1	12
NC for relay1	13
NO for relay2	14
COM for relay2	15
NC for relay2	16
GND / -ve sensor supply	17
+24 V / +ve sensor supply	18

### KEYS DESCRIPTION



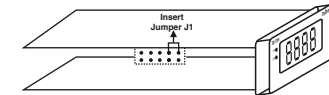
Functions	Key press
To enter or exit program mode	△ + ▽ together for 3 seconds
To change levels	△ or ▽ till Level is displayed. □ + △ / ▽ to increase or decrease the level number.
To view function on the same level and to display the current option.	△ or ▽ key once to view next/previous function.
To increase or decrease the value of a particular function.	□ + △ to increase and □ + ▽ to decrease the value of particular function.

**NOTE:** The unit will autoexit program mode after 60 seconds of inactivity.

**To enter or exit program mode:**  
 Press △ & ▽ together for 3 seconds

KEY PRESS	DISPLAY	DESCRIPTION
Press △ + ▽ for 3sec	id 0	<b>Lock code</b> Enter valid lock code as set in the [LOC] parameter of level 0.

**NOTE:** Lock code will not be prompted if jumper J1 (besides the calibration jumper) is present.



### PROGRAMMING OF LEVELS

#### PROGRAMMING OF LEVEL 0

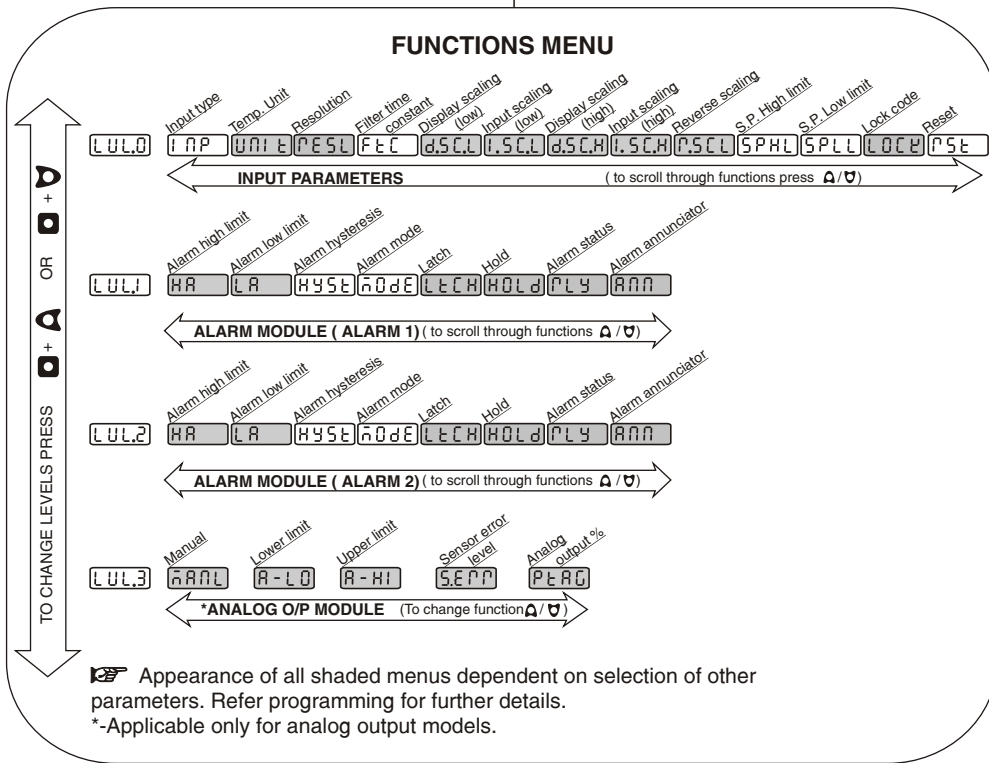
KEY PRESS	DISPLAY	DESCRIPTION
Press △ key	LULI	
Press □ + ▽ Key	LUL0	Parameters in this level can be set.

**Press △ key to select input sensor type**

Default setting: J  
**Input sensor selection**

Display: INP for 1sec

Press □ + △	J	J (-200 to 750°C)
Press □ + △	K	K (-200 to 1350°C)
Press □ + △	T	T (-200 to 400°C)
Press □ + △	R	R (0 to 1750°C)
Press □ + △	S	S (0 to 1750°C)
Press □ + △	P100	PT100 (-100 to 850°C)
Press □ + △	mV	mV (linear) -5 to 56mV
Press □ + △	10VDC	10 VDC
Press □ + △	20mA DC	20mA DC



KEY PRESS	DISPLAY	DESCRIPTION
<b>Press [ ] key to select Temperature unit</b> Default setting: °C NOTE: This parameter is not prompted if analog input is selected.		
<b>Temperature Unit</b>		
	Display [ ] for 1sec	
	[ ]	Value displayed in °C
Press [ ] + [ ]	[ ]	Value displayed in °F
<b>Press [ ] key to select Resolution</b> Default value: 1 NOTE: This parameter is not prompted if input is R, S type thermocouple.		
<b>Resolution</b>		
	Display [ ] for 1sec	
	[ ]	Range: 1 / 0.1 for TC / RTD
Press [ ] + [ ]	[ ]	1 / 0.1 / 0.01 / 0.001 for AIN
<b>Press [ ] key to select Filter time constant</b> Default value: 1sec		
<b>Filter time constant *</b>		
	Display [ ] for 1sec	
Press [ ] + [ ]	[ ]	Range: OFF, 1 to 99 sec to change value

<b>Press [ ] key to select Display value scaling point1</b> Default value: 0 NOTE: This parameter is not prompted if TC/RTD input types are selected		
<b>Display value scaling point low (DSCL) *</b>		
	Display [ ] for 1sec	
Press [ ] + [ ] / [ ]	[ ]	Range : -1999 to DSCH For AIN display as per decimal point selected.
<b>Press [ ] key to select input value scaling point 1</b> Default value: 0.00 NOTE: This parameter is not prompted if TC/RTD input types are selected		
<b>Input value scaling point low (ISCL) *</b>		
	Display [ ] for 1sec	
Press [ ] + [ ] / [ ]	[ ]	Range : 0.0mA / -5mV / 0.0 V to ISCH (default value changes as per analog input selected)
<b>Press [ ] key to select Display value scaling point 2</b> Default value: 9999 NOTE: This parameter is not prompted if TC/RTD input types are selected		
<b>Display value scaling point high (DSCH) *</b>		
	Display [ ] for 1sec	
Press [ ] + [ ] / [ ]	[ ]	Range : DSCL to 9999 For AIN display as per decimal point selected.
<b>Note:</b> * mark explained in the user guide. AIN - Analog Input		

KEY PRESS	DISPLAY	DESCRIPTION
<b>Press [ ] key to select Input value scaling point 2</b> Default value: 20.0mA NOTE: This parameter is not prompted if TC/RTD input types are selected		
<b>Input value scaling point high (ISCH) *</b>		
	Display [ ] for 1sec	
Press [ ] + [ ] / [ ]	[ ]	Range: ISCL to 20.00mA / 56mV / 10.00V (default value changes as per analog input selected)
<b>Press [ ] key to select Reverse scaling</b> Default setting: [ ] NOTE: This parameter is not prompted if TC/RTD input types are selected		
<b>Reverse scaling*</b>		
	Display [ ] for 1sec	
Press [ ] + [ ]	[ ]	The display scaling point settings can be reversed by selecting Reverse scaling as [ ]
<b>Press [ ] key to select Set point high limit</b> Default value: 750°C		
<b>Set point high limit (SPHL)</b>		
	Display [ ] for 1sec	
Press [ ] + [ ] / [ ]	[ ]	Range :SPLL to max. range of sensor (for TC/RTD)SPLL to DSPH (for AIN) For AIN display as per decimal point selected.
<b>Press [ ] key to select Set point low limit</b> Default value: -200°C		
<b>Set point low limit (SPLL)</b>		
	Display [ ] for 1sec	
Press [ ] + [ ] / [ ]	[ ]	Range : min. range of sensor to SPHL (for TC/RTD) DSCL to SPHL (for AIN) For AIN display as per decimal point selected.
<b>Press [ ] key to select Lock code</b> Default setting: 0		
<b>Lock code</b>		
	Display [ ] for 1sec	
Press [ ] + [ ] / [ ]	[ ]	Range :0 to 9999 to change value

<b>Press [ ] key to select Reset</b> Default setting: [ ] <b>Reset</b>		
	Display [ ] for 1sec	
Press [ ] + [ ]	[ ]	All parameters set to factory setting
<b>NOTE:</b> After altering the value of the input parameters press [ ] or [ ] for change to actually take effect.		
<b>NOTE: Programming steps for Level1 (Alarm1 module) &amp; Level2 (Alarm2 module) is same. Programming of level1 is shown.</b>		
<b>PROGRAMMING OF LEVEL 1</b>		
<b>Press [ ] + [ ] till Level 1 is displayed</b>		
KEY PRESS	DISPLAY	DESCRIPTION
	[ ]	Parameters in this level can be set.
<b>Press [ ] key to select Alarm high limit</b> Default value: 750°C NOTE: This parameter is not prompted if alarm mode is [ ] [ ] [ ] [ ]		
<b>Alarm high limit</b>		
	Display [ ] for 1sec	
Press [ ] + [ ] / [ ]	[ ]	Range: LA to SPHL (BAND mode) SPLL to SPHL (HA mode) For AIN display as per decimal point selected.
<b>Press [ ] key to select Alarm low limit</b> Default value: -200°C NOTE: This parameter is not prompted if alarm mode is [ ] [ ] [ ] [ ]		
<b>Alarm low limit</b>		
	Display [ ] for 1sec	
Press [ ] + [ ] / [ ]	[ ]	Range: SPHL to HA (BAND mode) SPLL to SPHL (LA mode) For AIN display as per decimal point selected.
<b>Press [ ] key to select Alarm hysteresis.</b> Default value: 1.0 NOTE: This parameter is not prompted if alarm mode is [ ] [ ] [ ] [ ]		
<b>Alarm hysteresis</b>		
	Display [ ] for 1sec	
Press [ ] + [ ] / [ ]	[ ]	Range: 0.1 to 99.9°C (for TC/RTD) 1 to 999 (for analog input) For AIN display as per decimal point selected.

KEY PRESS	DISPLAY	DESCRIPTION
<b>Press <math>\Delta</math> key to select Alarm mode.</b> Default setting: $\square$ HR In level 2 default setting is $\square$ LR		
<b>Alarm mode *</b>		
Display $\square$ ODE for 1sec		
	$\square$ OFF	Alarm off
Press $\square$ + $\Delta$	$\square$ HR	High Alarm
Press $\square$ + $\Delta$	$\square$ LR	Low Alarm
Press $\square$ + $\Delta$	$\square$ BRd	Band Alarm
Press $\square$ + $\Delta$	$\square$ FdA	Fault Diagnosis Alarm
Press $\square$ + $\Delta$	$\square$ FOA	Fail Output Alarm
<b>Press <math>\Delta</math> key to select Alarm latch status.</b> Default setting: $\square$ OFF		
NOTE: This parameter is not prompted when alarm mode is $\square$ OFF		
<b>Latch alarm*</b>		
Display $\square$ LECH for 1sec		
Press $\square$ + $\Delta$	$\square$ OFF	When latch is ON Alarm status will be preserved at any process condition.
	$\square$ ON	
<b>Press <math>\Delta</math> key to select Alarm hold status.</b> Default setting: $\square$ OFF		
NOTE: This parameter is not prompted if alarm mode is $\square$ OFF		
<b>Hold Alarm*</b>		
Display $\square$ HOLD for 1sec		
Press $\square$ + $\Delta$	$\square$ OFF	Used to avoid alarm at power ON. Alarm is enabled only after the process value has reached the set point.
	$\square$ ON	
<b>Press <math>\Delta</math> key to select Relay status for alarm1.</b> Default setting: $\square$ EN		
NOTE: This parameter is not prompted when alarm mode is $\square$ OFF		
<b>Relay status for Alarm1</b>		
Display $\square$ PLY for 1sec		
	$\square$ EN	Relay Energized.
Press $\square$ + $\Delta$	$\square$ dEN	Relay De - energized
<b>Press <math>\Delta</math> key to select Alarm annunciator.</b> Default setting: $\square$ OFF		
NOTE: This parameter is not prompted if alarm mode is $\square$ OFF		
<b>Alarm annunciator*</b>		
Display $\square$ RdN for 1sec		
	$\square$ OFF	No annunciator
Press $\square$ + $\Delta$	$\square$ LEd	
	$\square$ LED	LED of alarm1 blinks at the rate of 0.2sec
Press $\square$ + $\Delta$	$\square$ dSP	LED blinking; display flashing b/w PV and message (ALRM) at 1sec

NOTE: Applicable only if Analog output is available.

### PROGRAMMING OF LEVEL 3

Press  $\square$  +  $\Delta$  till Level 3 is displayed

KEY PRESS	DISPLAY	DESCRIPTION
	$\square$ LUL3	Parameters in this level can be set.
<b>Press <math>\Delta</math> key to select Manual.</b> Default setting: $\square$ OFF		
<b>Manual</b>		
Display $\square$ MANL for 1sec		
	$\square$ OFF	Used to set manual output On / Off.
Press $\square$ + $\Delta$	$\square$ ON	
<b>Press <math>\Delta</math> key to select Analog low scaling point</b> Default value: -9999		
NOTE: This parameter is prompted only if manual is $\square$ OFF		
<b>Low scaling point</b>		
Display $\square$ A-L0 for 1sec		
Press $\square$ + $\Delta$ / $\nabla$	$\square$ 9999	Programmable from -1999 to 9999. Fixed 1°C resolution for TC / RTD. For AIN display as per decimal point selected.
to change value		
<b>Press <math>\Delta</math> key to select Analog high scaling point</b> Default value: 9999		
NOTE: This parameter is prompted only if manual is $\square$ OFF		
<b>High scaling point</b>		
Display $\square$ A-H1 for 1sec		
Press $\square$ + $\Delta$ / $\nabla$	$\square$ 9999	Programmable from -1999 to 9999. Fixed 1°C resolution for TC / RTD. For AIN display as per decimal point selected.
to change value		
<b>Press <math>\Delta</math> key to select Sensor error level</b> Default setting: $\square$ HIGH		
<b>Sensor error level</b>		
Display $\square$ SEPP for 1sec		
Press $\square$ + $\Delta$	$\square$ HIGH	In case of sensor failure the output can be set to high or low value of range.
	$\square$ LOW	
<b>Press <math>\Delta</math> key to select Analog output %.</b> Default setting: $\square$ 00		
NOTE: This parameter is prompted only if manual is $\square$ ON		
<b>Analog output %</b>		
Display $\square$ PER0 for 1sec		
Press $\square$ + $\Delta$ / $\nabla$	$\square$ 00	Programmable from 0.0 to 100.0
to change value		

## USER GUIDE :

### ALARM MODES

#### High Alarm:

The alarm is turned ON when PV rises above a preset value.

#### Low Alarm:

The alarm is turned ON when PV falls below a preset value.

#### Band Alarm:

The alarm is turned ON when PV rises above or falls below a preset value.

#### Fault Diagnosis Alarm:

The alarm is turned ON in case a hardware failure occurs.

#### Fail Output Alarm:

The alarm is turned ON in case of :

- measurement value exceeds range
- Sensor reverse condition (applicable for TC/RTD).

#### Latch Alarm:

This function is used to latch the alarm. When activated, the alarm is latched until it is acknowledged manually, even though the alarm condition may have disappeared.

#### Hold Alarm:

When hold is selected, in any alarm mode, it prevents an alarm signal on power-up. The alarm is enabled only if the process temperature is within alarm range.

### Alarm display options:

- Press the  $\square$  key to view the status of alarms
- Press  $\square$  +  $\nabla$  to view the status of next alarm (after alarm 2 it rolls over to alarm 1).

#### Only the alarms that are active can be viewed.

Alarm status ( e.g : of alarm 1) will be displayed as follows:

LA-1 for low alarm, HA-1 for high alarm, FO-1 for Fail output

### Alarm display options:

- Press the  $\square$  key to view the status of alarms
- Press  $\square$  +  $\nabla$  to view the status of next alarm (after alarm 2 it rolls over to alarm 1).

#### Only the alarms that are active can be viewed.

Alarm status ( e.g : of alarm 1) will be displayed as follows:

LA-1 for low alarm, HA-1 for high alarm, FO-1 for Fail output alarm, FD-1 for fault diagnosis.

- Press  $\square$  +  $\Delta$  to acknowledge the particular alarm (Alarm will be acknowledged only if latch ON).

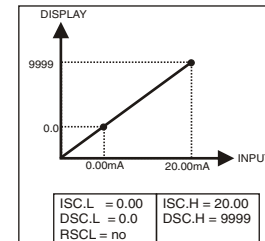
### FILTER TIME CONSTANT:

The filter is an adaptive digital filter that discriminates between measurement noise and actual process changes. If the signal is varying too greatly due to measurement noise, increase the filter value. If the fastest controller response is needed, decrease the filter value.

### SCALING FOR ANALOG INPUT:

To scale the controller, two scaling points are necessary. Each scaling point has a coordinate pair of Display Values and Input Values. It is recommended that the two scaling points be at the low and high ends of the input signal being measured. Process value scaling will be linear between and continue past the entered points to the limits of the input range. (Factory settings example will display 0.0 at 0mA input and display 9999 at 20.00mA input.) Reverse acting indication can be

accomplished by setting reverse scaling parameter as YES. In this case referring the above eg. For 0.00mA input the display will show 9999 and 20.00mA input the display will show 0.0. NOTE: This change will not be visible in the programming menu.



### SETTING FOR MANUAL OUTPUT MODE :-

**KEY PRESS** | **DISPLAY** | **DESCRIPTION**

Eg. For 4-20 mA if constant 12mA output current is desired then setting for manual output :

Press $\square$ + $\Delta$	$\square$ LUL3	
Press $\Delta$ key	$\square$ MANL	display momentarily
Press $\square$ + $\Delta$ / $\nabla$	$\square$ ON	(Selection for manual output mode)
Press $\Delta$	$\square$ PER0	
Press $\square$ + $\Delta$ / $\nabla$	$\square$ 500	Adjust the display to 50.0 to get 12mA at output

### SETTING FOR RETRANSMISSION MODE

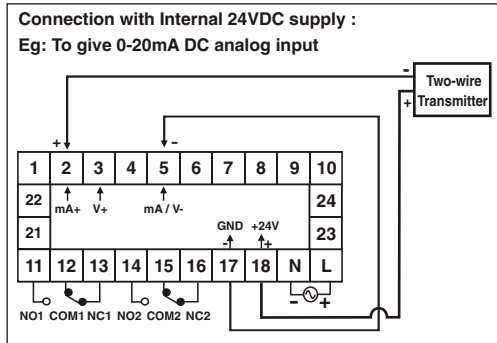
**Eg. :1) For Temperature Input :-**

Input : RTD Input  
Retransmission output : 4 - 20 mA  
Desired output : 4mA at 0°C, 20mA at 400°C  
Settings :

Press $\Delta$ + $\nabla$	$\square$ LUL1	
Press $\square$ + $\nabla$	$\square$ LUL0	
Press $\Delta$ key	$\square$ INP	
Using $\square$ + $\Delta$ / $\nabla$	$\square$ P100	Select the Input type as RTD
Press $\Delta$ till	$\square$ LUL0	is displayed
Press $\square$ + $\Delta$ till	$\square$ LUL3	is displayed
Press $\Delta$ key	$\square$ MANL	display momentarily
and then display	$\square$ OFF	(Selection for retransmission mode)
Press $\Delta$	$\square$ A-L0	
Press $\square$ + $\Delta$ / $\nabla$	$\square$ 0	Adjust the display to 0
Press $\Delta$	$\square$ A-H1	

KEY PRESS	DISPLAY	DESCRIPTION
Press $\square$ + $\Delta$ / $\nabla$	400	Adjust the display to 400
Press $\Delta$ key		
<b>Eg. : 2) For analog Input :-</b>		
Retransmission output : 4 - 20 mA		
Desired output : 4mA at 0V ; 20mA at 10V		
Input Scaling : 0V - 0; 10V - 400		
Settings :		
Press $\Delta$ + $\nabla$	LUL.I	
Press $\square$ + $\nabla$	LUL.0	
Press $\Delta$	INP	
Using $\square$ + $\Delta$ / $\nabla$	UOLt	Select the Input type as voltage
Press $\Delta$ until	d.S.C.L	is displayed
Using $\square$ + $\Delta$ / $\nabla$	0	Adjust the display to 0
Press $\Delta$	1.S.C.L	
Press $\square$ + $\Delta$ / $\nabla$	0.00	Adjust the display to 0
Press $\Delta$	d.S.C.H	
Press $\square$ + $\Delta$ / $\nabla$	400	Adjust the display to 400
Press $\Delta$	1.S.C.H	
Press $\square$ + $\Delta$ / $\nabla$	10.0	Adjust the display to 10
<b>Note :</b> By default the display will be 10.00 for 0-10V Input		
Press $\Delta$ Key		
Setting for Retransmission :		
Press $\square$ + $\Delta$ till	LUL.3	
Press $\Delta$ key	RRRL	displays momentarily
and then display	OFF	
	R-L0	
Press $\square$ + $\Delta$ / $\nabla$	0	Adjust the display to 0
	R-H1	
Press $\square$ + $\Delta$ / $\nabla$	400	Adjust the display to 400
Press $\Delta$ key		

### CONNECTION WITH 2-WIRE TRANSMITTER



### CALIBRATION CERTIFICATE

Date: \_\_\_\_\_

Model No: \_\_\_\_\_

Sr. No.: \_\_\_\_\_

**Claimed Accuracy:**  $\pm 0.25\%$  of full scale  $\pm 1$  digit (After 20min warmup time)

#### Sources calibrated against:

Hinditron Multimeter, Model 86, Sr.No.:1094

#### Multimeter calibration report no:

ERTL (W), Mumbai, INDIA

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

SENSOR	CALIBRATION TEMP.(°C) (0.1Resolution)	DISPLAY VALUE (°c)
K	35.0	35.0
	700.0	700.0
	1350	1350
PT100	0.0	0.0
	500.0	500.0
	800.0	800.0

SENSOR	CALIBRATION VALUE (0.1Resolution)	DISPLAY VALUE
Voltage (VDC)	0.0	0.0
	10.0	10.0
Current (mA)	0.0	0.0
	20.0	20.0

The thermocouple / RTD curves are linearised in this microprocessor based product; and hence the values interpolated between the readings shown above are also equally accurate; at every point in the curve.

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,

(Formerly Selection Process Controls Pvt. Ltd.)

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