

**OPERATING MANUAL**  
**8-CHANNEL TEMPERATURE SCANNER**  
**WITH LOGGER&MODBUS (MS-9700)**

# MISTURA

## AUXILIARY SUPPLY

|                               |                            |
|-------------------------------|----------------------------|
| Supply voltage                | 100 to 250V AC, 50-60Hz    |
| Power consumption (VA RATING) | Approx. 4 VA @ 230V AC MAX |

## ENVIRONMENT CONDITION

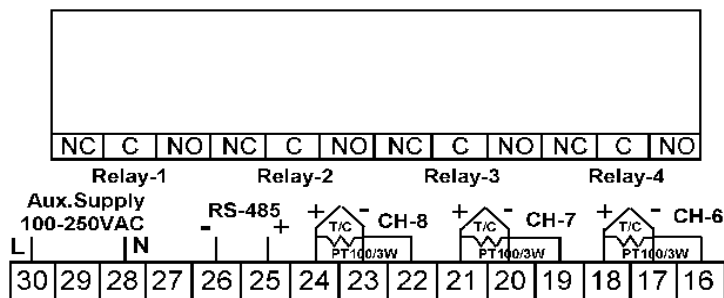
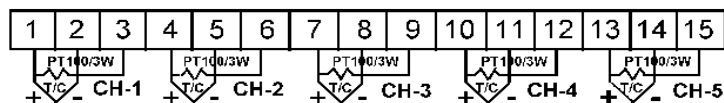
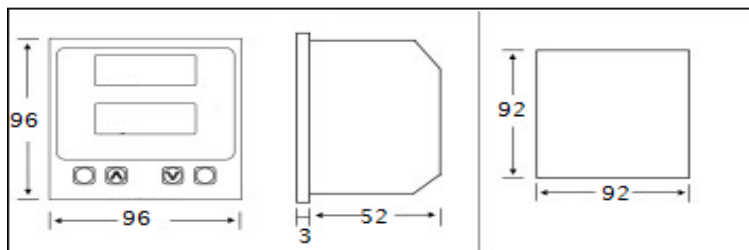
|                   |                                               |
|-------------------|-----------------------------------------------|
| Operating Temp.   | 0°C to 55°C                                   |
| Relative Humidity | UP to 95% RH (non-condensing)                 |
| Protection Level  | IP-65 (Front side) As per IS/IEC 60529 : 2001 |

## DISPLAY

Upper: 4 Digit, Seven Segment, 0.70" White  
 Lower: 4 Digit, Seven Segment, 0.50" Green

## DIMENSION

96(H) X 96(W) X 52(D)/ Cut out : 92(H) X 92(W)



## INPUT SPECIFICATION:

| Sr. | INPUT | Range             |
|-----|-------|-------------------|
| 1   | TC-J  | 0 To 600 °C       |
| 2   | TC-K  | 0 To 1200 °C      |
| 3   | PT    | -100 To 400°C     |
| 4   | PT-1  | -100.0 To 400.0°C |

**Indication Accuracy** ±1% of FSD ± 1°C  
 (FSD: full scale deflection)

**Resolution** J,K,PT-100 = 1°C  
 PT.1 = 0.1°C

## USB SPECIFICATION:

|                        |                               |
|------------------------|-------------------------------|
| USB Port               | (USB 2.0) Mass Storage        |
| USB Function           | Retrieving logged data only   |
| Storage Device Format  | FAT32                         |
| Data Fetch File Format | CSV Microsoft Excel Supported |
| Data Retrieving Option | Full data fetch               |
| Logging Sample         | 2500 (max)                    |
| Pen drive Support      | Up to 16GB                    |
| Data logging time      | Settable Up to 9999 SEC.      |

## COMMUNICATION SPECIFICATION

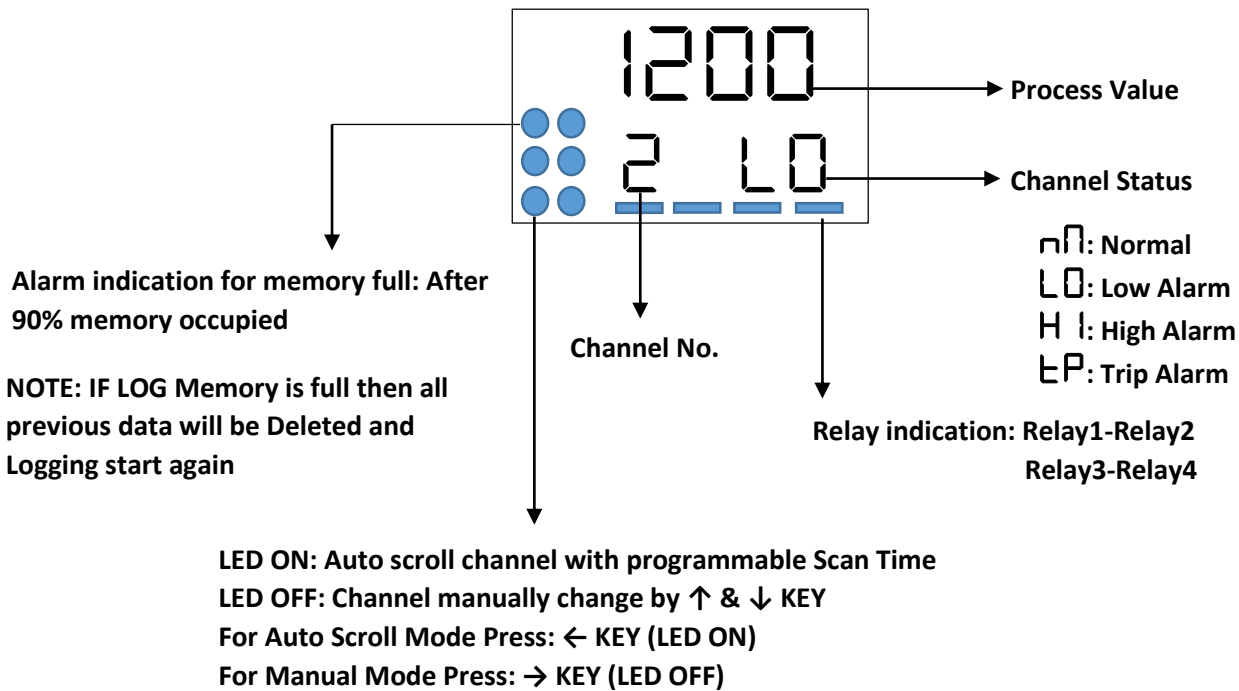
|                    |                    |
|--------------------|--------------------|
| Protocol           | Modbus RTU Serial  |
| Standard           | RS - 485           |
| Communication type | 2 wire half duplex |
| Communication rate | 9600,19200         |
| Address range      | 1-127              |
| Data type          | Integer            |

## OUTPUT SPECIFICATION:

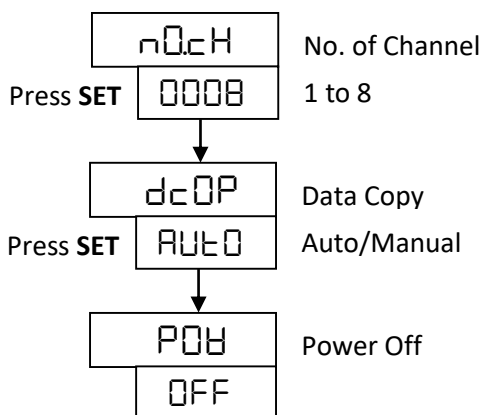
| Relay Output/ SSR Output (Factory Set) |                                              |
|----------------------------------------|----------------------------------------------|
| Relay/SSR                              | 4                                            |
| Relay Type                             | (NO-C-NC)                                    |
| Rating                                 | Relay:10A, 230VAC/30V DC<br>SSR: 24 VDC,30mA |

## USB Excel Sheet Format:

| Sr No. | Date      | Time     | CH1 | CH2 | CH3 | CH4 | CH5 | CH6 | CH7 | CH8 |
|--------|-----------|----------|-----|-----|-----|-----|-----|-----|-----|-----|
| 1      | 12/5/2020 | 10:50:00 | 35  | 36  | 35  | 37  | 35  | 35  | 35  | 35  |
| 2      | 12/5/2020 | 10:50:10 | 35  | 36  | 35  | 37  | 35  | 35  | 35  | 35  |
| 3      | 12/5/2020 | 10:50:20 | 35  | 36  | 35  | 37  | 35  | 35  | 35  | 35  |
| 4      | 12/5/2020 | 10:50:30 | 35  | 36  | 35  | 37  | 35  | 35  | 35  | 35  |



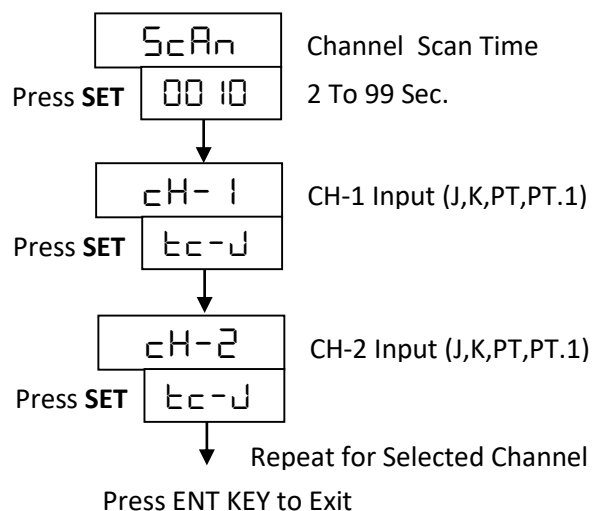
#### CHANNEL SELECTION: [POWER ON + ↑ KEY]



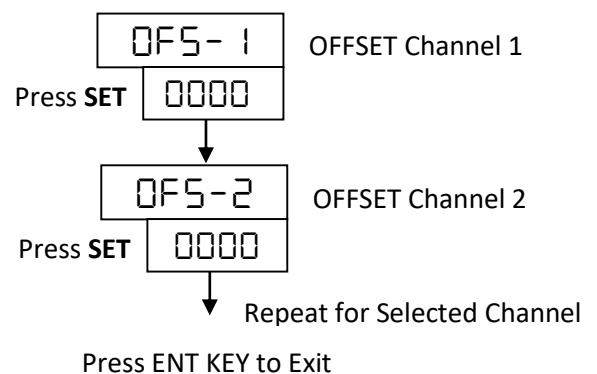
**Data Copy in Auto Mode:** Whenever instrument will be on, Logging Sample will copy in pen-drive, for this pen-drive should be in USB host. If Pen-drive will not detected in USB HOST, DATA COPY MODE exit after 10 sec.

**Data Copy in Manual Mode:** Insert pen-drive in USB HOST & Press ENT KEY to Copy data in pen-drive. This function also work in auto mode. (MS\_####.CSV Microsoft Excel Supported file Created).

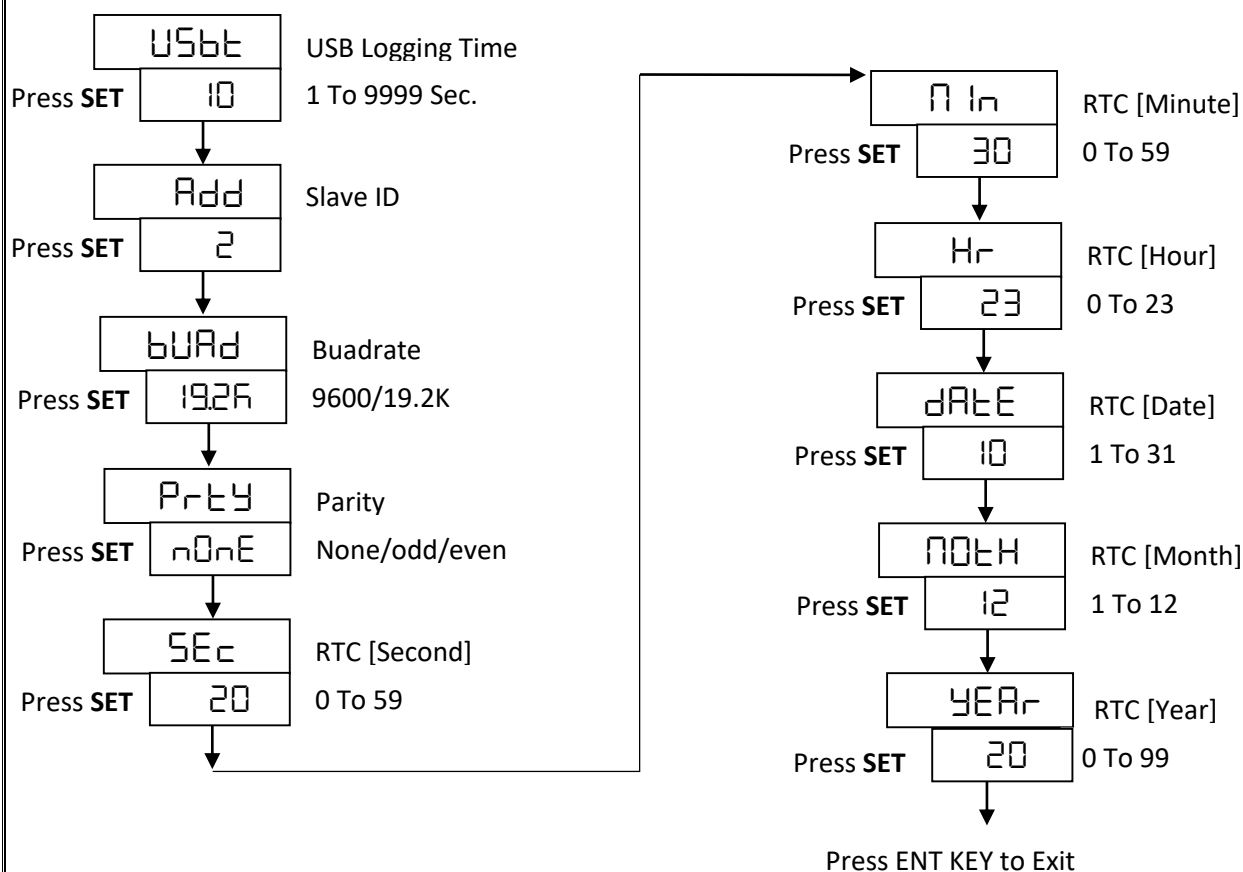
#### INPUT SELECTION: [PRESS SET + ↑ KEY]



#### OFFSET : [PRESS SET + ↓ KEY]

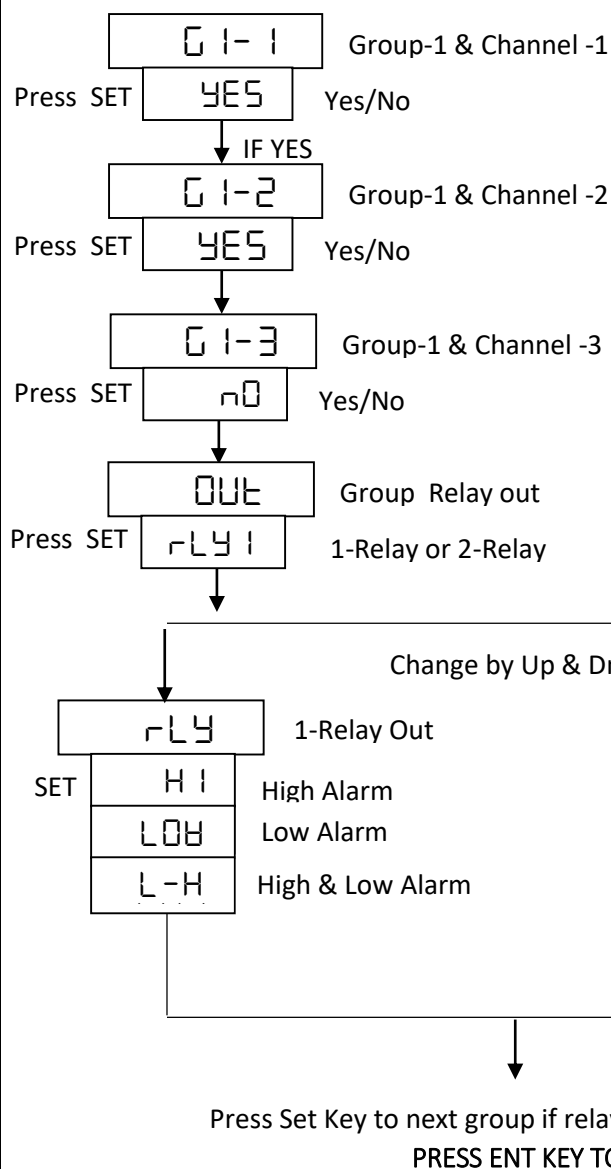


# USB, RTC & MODBUS: [PRESS SET + → KEY]



| Read/Write | Parameter         | Read Function Register(0x03/0x04) ADDRESS(INT) | Write Function Register (0x06/0x10) ADDRESS(INT) |                                    |
|------------|-------------------|------------------------------------------------|--------------------------------------------------|------------------------------------|
| R          | Process Vaule-CH1 | 40001/30001                                    | -                                                |                                    |
| R          | Process Vaule-CH2 | 40002/30002                                    | -                                                |                                    |
| R          | Process Vaule-CH3 | 40003/30003                                    | -                                                |                                    |
| R          | Process Vaule-CH4 | 40004/30004                                    | -                                                |                                    |
| R          | Process Vaule-CH5 | 40005/30005                                    | -                                                |                                    |
| R          | Process Vaule-CH6 | 40006/30006                                    | -                                                |                                    |
| R          | Process Vaule-CH7 | 40007/30007                                    | -                                                |                                    |
| R          | Process Vaule-CH8 | 40008/30008                                    | -                                                |                                    |
| R/W        | OFFSET-CH1        | 40009/30009                                    | 40009                                            |                                    |
| R/W        | OFFSET-CH2        | 40010/30010                                    | 40010                                            |                                    |
| R/W        | OFFSET-CH3        | 40011/30011                                    | 40011                                            |                                    |
| R/W        | OFFSET-CH4        | 40012/30012                                    | 40012                                            |                                    |
| R/W        | OFFSET-CH5        | 40013/30013                                    | 40013                                            |                                    |
| R/W        | OFFSET-CH6        | 40014/30014                                    | 40014                                            |                                    |
| R/W        | OFFSET-CH7        | 40015/30015                                    | 40015                                            |                                    |
| R/W        | OFFSET-CH8        | 40016/30016                                    | 40016                                            |                                    |
| R/W        | INPUT-CH1         | 40017/30017                                    | 40017                                            | 0:TC-J<br>1:TC-K<br>2:PT<br>3:PT.1 |
| R/W        | INPUT-CH2         | 40018/30018                                    | 40018                                            |                                    |
| R/W        | INPUT-CH3         | 40019/30019                                    | 40019                                            |                                    |
| R/W        | INPUT-CH4         | 40020/30020                                    | 40020                                            |                                    |
| R/W        | INPUT-CH5         | 40021/30021                                    | 40021                                            |                                    |
| R/W        | INPUT-CH6         | 40022/30022                                    | 40022                                            |                                    |
| R/W        | INPUT-CH7         | 40023/30023                                    | 40023                                            |                                    |
| R/W        | INPUT-CH8         | 40024/30024                                    | 40024                                            |                                    |

## RELAY GROUP SETUP: [PRESS SET + ← KEY]

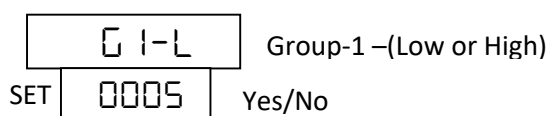


Ex. CH-1 & CH2 in Group 1, Group1 output 1-Relay with High-Low. CH-3, CH4, CH5 in Group2, Group2 output 2- Relay with High-Trip. (PRESS SET + ← KEY)

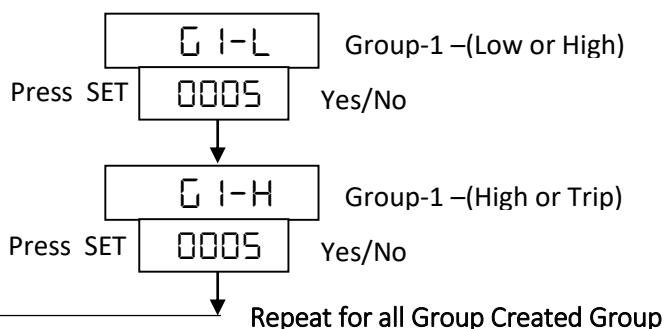
G 1-1 (Group1 – CH1) Select YES by Up & Dn Key than Press Set Key to Select CH-1 in Group1, G 1-2 (Group1 – CH2) Select YES & Press Set Key to Select CH-2 in Group 1, G 1-3 (Group1 – CH3) Select No & Press Set Key (CH1& CH2 in Group1), then OUT will display select no. of Relay for the group(1-RELAY or 2 RELAY). Select Relay1 than Press Set Key & Select High& Low Alarm by Up & Dn Key. G 2-3 (Group2 – CH3) Select YES & Press Set Key to Select CH-3 in Group 2, G 2-4 (Group2 – CH4) Select YES & Press Set Key to Select CH-4 in Group 2, G 2-5 (Group2 – CH5) Select YES & Press Set Key to Select CH-5 in Group 2, G 2-6 (Group2 – CH6) Select No & Press Set Key (CH3,CH4,CH5 in Group2), then OUT will display select no. of Relay for the group(1-RELAY or 2 RELAY). Select Relay2 than Press Set Key & Select High& Trip Alarm by Up & Dn Key.

## SETPOINT SETUP: [PRESS → + ← KEY]

### IF Relay Out at Low Or Relay Out at High



### IF Relay Out at Low & High or Relay Out at High & Trip



PRESS ENT KEY TO EXIT