8 CHANNEL UNIVERSAL SCANNER LOGGER, 6308UC

Features:

- MODBUS-RTU output of all channels
- Microprocessor based linearised for J/K/R Thermocouples and PT100 temperature sensors.
- 4-20mA input with Low, High and resolution individually settable for each channel.
- Independent High and Low Set Limits for each channel with independent LED indications for each channel
- Common High and Low Relays for alarm
- Auto cold junction compensation for thermocouples and 3 wire input for PT100
- Number of usable channels selectable.
- Settable Modbus ID
- Auto/Manual mode of scanning selectable
- Digital offset user settable for individual channels

Specifications

- Display : 0.56” Red LED display for Channel Number
  0.36” Green LED display for Process Value
- Sensor : J/K/R Thermocouples, 3 wire PT100 and 4-20mA input user selectable
- Range : J-T/C : 0 to 750˚C K-T/C : 0 to 1250˚C R-T/C : 0 to 1700˚C
  PT100: -100.0 to +600.0˚C
  4-20mA: -1999 to 9999 with resolution of 0.001, 0.01, 0.1 and 1
- Resolution : 1˚C for thermocouples, 0.1˚C for PT100 and user selectable for 4-20mA
- Channels : Maximum 8
- Scanning Rate: User settable from 1-99seconds (for auto mode)
- Digital Offset : User settable individually for each channel
- Logging Rate : 1 second to 99Mins59seconds
- Data Logging : MODBUS-RTU for accessing data of all channels
- MODBUS ID : 1-99, user settable
- Accuracy : ±1˚C ± 1 Least Significant Digit for Thermocouples
  ±0.1˚C ± 1 Least Significant Digit for PT100
- High Alarm Relay: If any of the High Alarm LEDs are on (when any Channel Value is greater than its corresponding High Set limit, High Alarm relay will come on.
- Low Alarm Relay: If any of the Low Alarm LEDs are on (when any Channel Value is lesser than its corresponding Low Set limit, Low Alarm relay will come on.
- Power Supply : 230V AC ± 15% at 50/60Hz
- Mounting Type: Panel Type
- Front Facia : 96mm x 96mm

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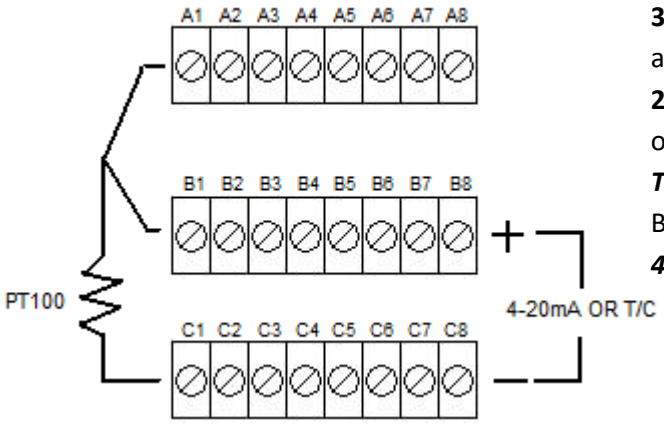
Instructions for usage

Make the following Connections:

- Connect the Sensor to the unit as shown on the label
- Connect 220V AC to terminals marked on unit. Also connect Earth terminal to Mains Earth.
- Insert the USB pen drive into the front USB slot. (ENSURE THAT THE PEN DRIVE IS INSERTED OR REMOVED WHILE 220V AC POWER IS REMOVED FROM THE UNIT or while DATA LOGGING IS DISABLED)



3 wire PT100: For Channel 1, connect the same coloured wires to A1 and B1. Connect the different coloured wire to C1.

2 wire PT100: For Channel 1, short terminals A1 and B1. Connect one wire of PT100 to B1 and other wire to C1.

Thermcouples(J/K/R): For Channel 1, connect the sensor between B1 (+ve) and C1 (-ve).

4-20mA: Connect the sensor between B1 (+ve) and C1 (-ve)

Repeat the above for all other channels.

Changing Current Channel

- Use Increment and Decrement keys to change the currently displayed channel if in Manual Mode.

Setting the Sensor type, High Alarm value, Low Alarm Value, Range (Low and High) and Resolution of each Channel

1. During normal display of Process Value & channel number, press Increment and Decrement switch simultaneously.

2. The upper display indicates **'IN-1'** while the lower display indicates "Th-J", "Th-K", "Th-R", "PT10" or "4-20".
3. This represents the type of sensor being used for first channel.
4. Use increment & decrement switch to change selected sensor.
5. After changes have been made, press Mode switch.

6. The upper display indicates "**Hi-1"** while the lower display indicates the current High Alarm limit for channel 1. Use the Up and Down keys to make changes.
   Red LED 1 on for Channel-1 > Hi-1
   If any Red LED is on, Common High Alarm relay will also come on
7. After changes are done, press the Mode switch

8. The upper display indicates "**Lo-1"** while the lower display indicates the current Lower Alarm limit for channel 1. Use the Up and Down keys to make changes.
   Green LED 1 on for Channel-1 < Lo-1
   If any Green LED is on, Common Low Alarm relay will also come on
9. After changes are done, press the Mode switch

10. The upper display indicates '**ZE-1**' while the lower display indicates the current Zero for the first channel. This corresponds to the value to be displayed when 4mA input is given for 4-20mA input. For Thermocouples and PT100 this represents the offset setting.
11. Use increment and decrement switches to make changes. The range is from -1999 to +9999 for 4-20mA. For PT100 and thermocouples, the range is from -30degC to +30degC.

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12. After changes have been made, press Mode switch.
13. If 4-20mA input is selected the next two settings are shown. Else the display skips to Point 16.

14. The upper display indicates '**SP-1'** while the lower display indicates the current SPAN for the first channel. This corresponds to the value to be displayed when 20mA input is given.
15. Use increment and decrement switches to make changes. The range is from -1999 to +9999.
16. After changes have been made, press Mode switch.

17. The upper display indicates '**dP-1'** while the lower display indicates the current resolution for the first channel.
18. Use increment and decrement switches to select the resolution between 0.000, 00.00, 000.0 or 0000
19. After changes have been made, press the Mode switch again.

20. The display now indicates 'IN-2' while the lower display indicates the previous selected sensor type for channel 2. After making changes, set 'ZE-2', 'SP-2', and 'dP-2' for channel 2 same as done for channel 1.
21. The above repeats till all the selected channels are over. After all channels have been covered, pressing the Mode switch will return the unit to normal display of Process Value and Channel Number.

Configuration Settings:

1. Scanning Rate

- Press the Mode switch. The upper display shows "SCAN" while the lower display indicates the current set scanning rate. This refers to the rate at which the displayed channel process value changes in Auto Mode. Please note that this rate does not affect the logging rate.
- Use increment and decrement switches to make changes. The range is from 1second to 99seconds.
- After changes have been made, press Mode switch to save changes and go to next setting.

2. Auto/Manual Mode

- After the previous selection, the upper display indicates "Mode" while the lower display indicates either "MAN" (Manual) or "Auto" (Auto).
- This refers to the currently selected mode of scanning. In Manual mode, the increment and the decrement keys have to be used for changing the current displayed channel process value. In Auto mode, the channel number automatically changes at the scanning rate interval.
- Use increment and decrement keys to toggle between Auto and Manual Modes.
- After changes have been made, press Mode switch to save changes and go to next setting.

3. Number of Channels

- After previous setting, the upper display indicates "CHno" while the lower display indicates the currently selected channels i.e. if 05 is selected then channels 1-5 are active.
- Use increment and decrement switch to change the selected number of channels
- The range is from 1-8.
- After changes have been made, press the Mode switch to save changes and go to next setting.

4. MODBUS-ID

- After previous setting, the upper display indicates "Id" while the lower display indicates the currently selected MODBUS ID.
- Use increment and decrement switch to change the selected number of channels
- The range is from 1-99.
- After changes have been made, press the Mode switch to save changes and go to return to normal display

MODBUS-RTU setting

- Baud Rate: 9600 bps
- Number of Bits: 8
- Stop Bits: 1
- Parity: None
- Slave ID: User settable from 1-99
- Type of Register: Input Register
- Address: 0
- Data Type: 2 byte Integer