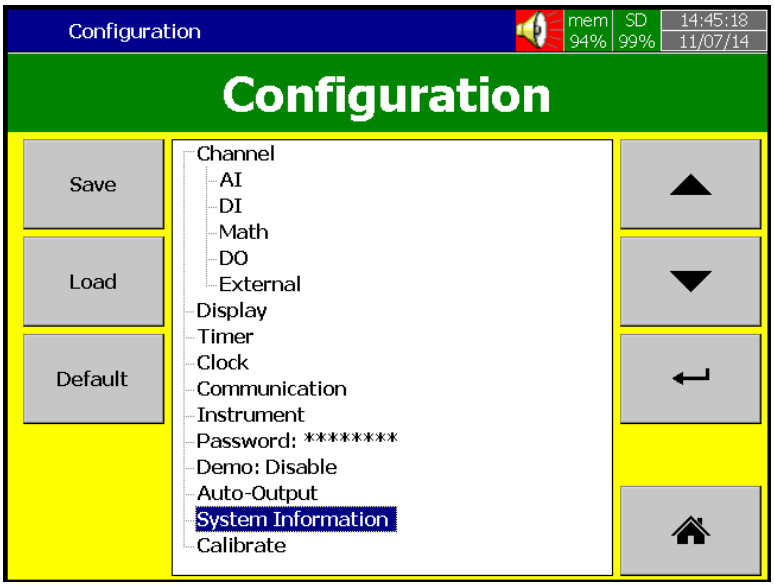
Offset and Gain Adjustments to Analog Inputs, see last page of this pdf file, top of page.

4. CONFIGURATION

Press  (“**Menu**”), then the **”More”** soft button to enter Configuration mode. A vertical list appears with a provision to configure Channel, Tools, Message, Display, Instrument, Security, Auto-Output, Demo, and system Information. In addition, the Save, Load, Default and Home soft buttons also appear.



Soft buttons

 Enter key

 Up directional key

 Down directional key

 Home key

Various options are available to enter into configuration mode

Option-1: Select the mode by pressing up & down directional keys, then press “**Enter”** key

Option-2: Select the required mode directly with a touch, then press “Enter” key

Option-3: Select the required mode by pressing the mode two times quickly, it is same as a double click from a mouse

Save: Save configuration from the recorder to a USB Stick or an SD Card.
To read the configuration from a USB Stick for the first time or any time the configuration has been changed, it is important to press the "Save" soft button to save configuration changes to the USB Stick* or SD Card *beforehand.

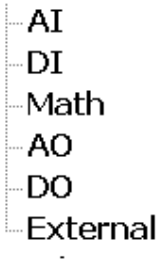
Load: Load configuration from a USB stick or SD Card to the recorder.

Default: If the configuration is set incorrectly, "Default" is a useful key to recall the default settings for the analog input card inserted into rear expansion slot.

Home: Returns the User to the home page.

4.1 Channel

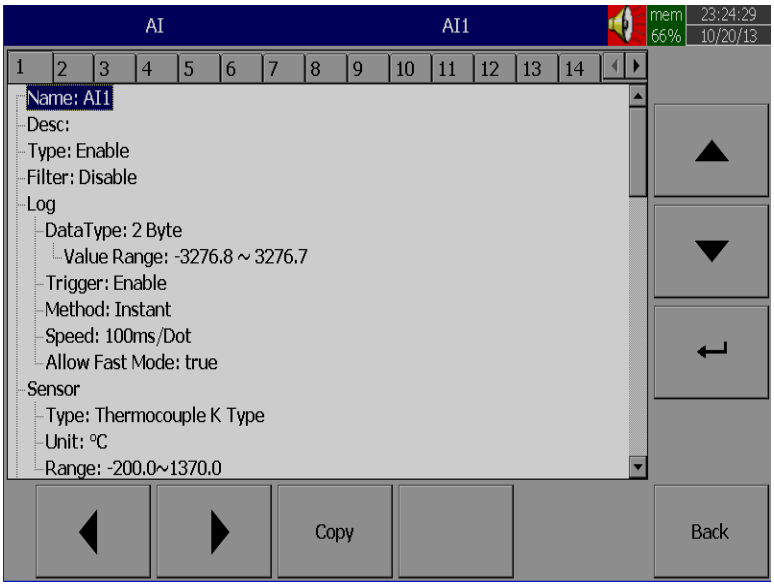
Path:  (Menu)-More-Config-Channel



This section is to configure different type of channels. Analog Input (AI), Digital Input (DI), Math, Analog Output (AO), Digital Output and External device channels.

4.1.1 Analog Input

After entering the Configuration mode, in "Channel", select "**AI**", then Press the "**Enter"** key to get into Analog Input Channel mode. It displays the Analog input **AI1** as the first analog input channel configuration page. Press directional keys 〈 〉 at the bottom to select other channels. Press directional keys↑↓ on the right hand side to select the column. ***After completing Configuration, press "Back" soft button, then press "Home" soft button to return to main display. All configurations will be saved automatically.***



Copy: For example, to copy the channel configuration from channel 1 to channel 2, select the source channel, in this case AI1 (or whatever the channel is named), press on "Copy" button. Now, a "Paste" button will get enabled, go to target channel, say channel 2, and then press on "Paste" button.

Name: Enables the User to define the name for each channel with a maximum of 18 characters.

Select "Name", then Press "**Enter**", soft button, a keyboard with several keys appear. Press "**Shift**" to select special characters. Press "**Caps**" to select capital letters. Press soft key "**OK**" after entering a new channel name.

Desc: The description about a specific channel on the display.

Type: Option available to enable or disable the channel from selection

Filter: It is to reduce the noise of input signal before sampling. It is possible to select range from 1 to 16 sec. It is a soft filter available to reduce fast variation of analog inputs. It gives a moving average value. For example, if the filter value is set as 5 sec for AI1, it means all the samples collected in the last 5 sec shall be averaged, and the value is available to record as per Log method.

Log:

Data Type: 2 byte

2 byte range**:** -32767 to +32767

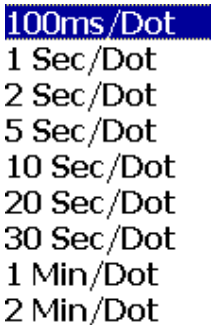
Trigger: Two options are available

a) Disable: Select disable while the recording of a specific channel is not required at this time
b) Enable: Select Enable while the recording of a specific channel is required at this time

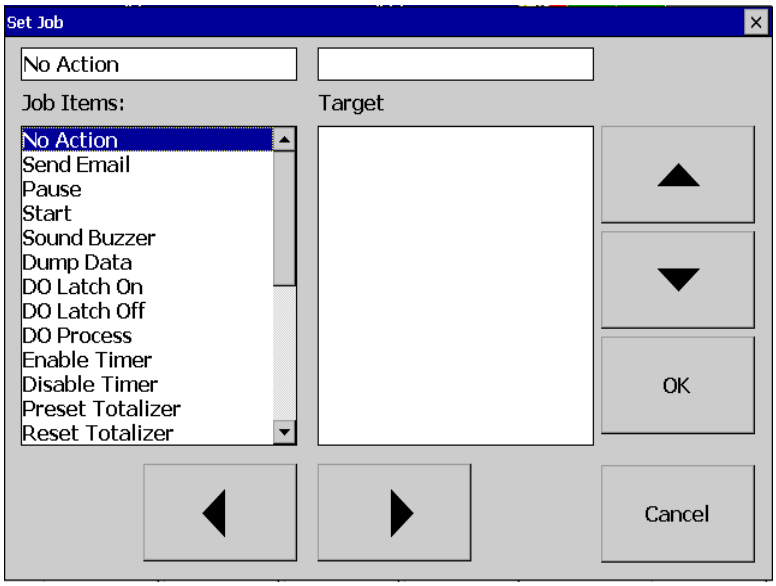
Method: This is the method of logging measured data. Select the column and press “enter”. Then choose the Log method of Instant, Average, Minimum or Maximum data.

Instant: logging the last measured data at the sampling interval
Average: logging the averaged measured data at the sampling interval
Minimum: logging the minimum measured data at the sampling interval
Maximum: logging the maximum measured data at the sampling interval

Speed: It is the logging speed (recording speed) of measured data.
Select Log Speed column, then choose one of the following

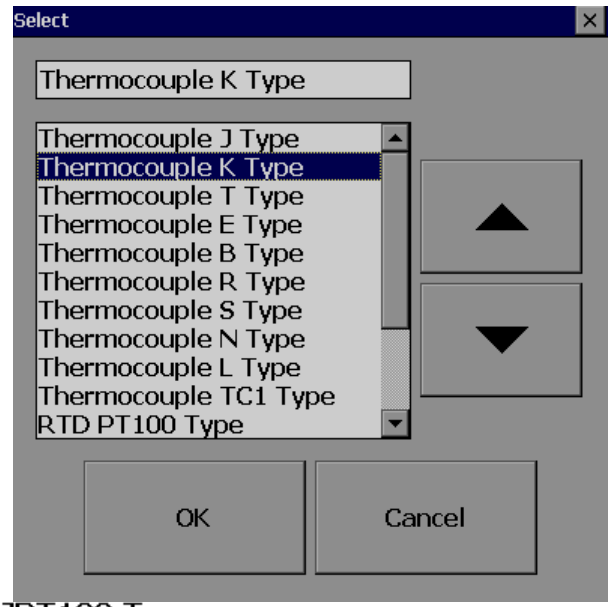


(Auto)Set Jobs under Events



Sensor
- Type: Thermocouple K Type, °C
- Unit: °C
- Range: -200.0~1370.0

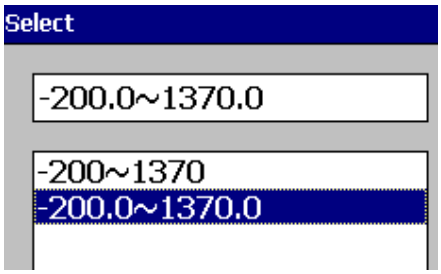
Type: Select the sensor input type for the Channel**.**

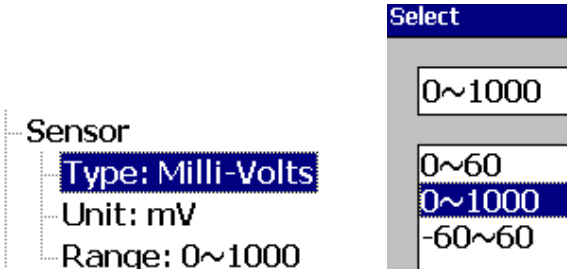


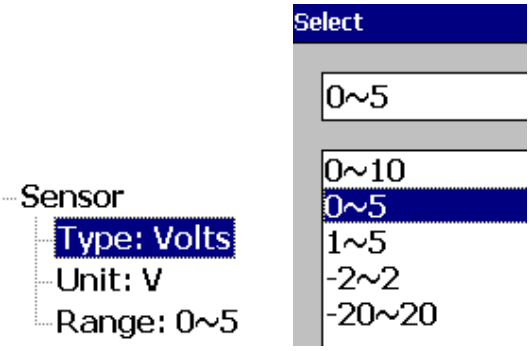
RTD JPT100 Type
RTD RTD1 Type
Milli-Volts
Volts
Current

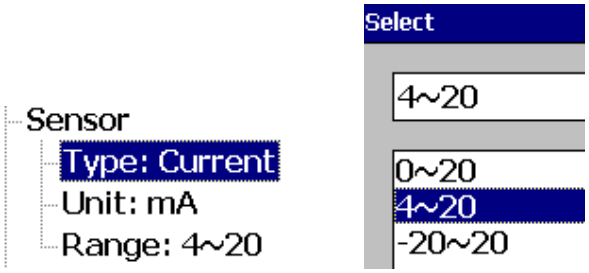
Unit: The engineering unit of input.

Range: Select based on Sensor type

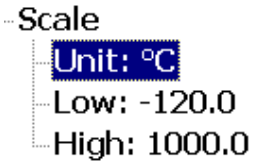








Scale: Appears only for linear inputs Ex: mV, Voltage, current etc..



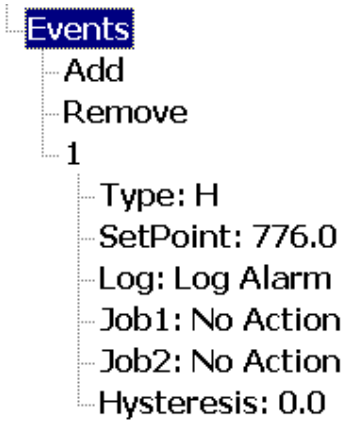
Offset: It is offset value to correct the sensor error.

Gain: It is a multiplier to correct the sensor error.
The correct value = (the process value x gain) + offset

Events

Events are frequently used for Alarm purposes. Events can also be used for digital outputs (DO), Timer, Totalizer, Counter or Report.

Maximum five events are possible to set for each Analog Input
Press “Add” to add new event
Press “Remove” to remove selected event



Type: There are various types of H, L, HH, LL, Dev+, Dev-, and Error to be selected for a job
or Alarm purpose

H: High limit. When the process is over high limit, the alarm or job is actuated.

L: Low limit. Any the process is lower than low limit, the alarm or job is actuated

HH: High high limit, to set up another limit higher than high limit for double warning.