



GXM-20U/40U 2 and 4 Channel Universal Sensor Input Extension Module

Device Description : This device is an extension module uses for increase digital I/O capacity. It works with any CPU module, It does not work stand alone.

General Description: This module have got 2 or 4 channel sensor input and reads 0.1°C temperature resolution. Sensor inputs are 16 bit resolution.

0. and 1 channels is 1. Group, 2. and 3. channels is 2. Group. Each groups can read thermocouple /mV, or Pt100/ PT1000 /NTC sensors at a time.

Module has got separate PID functions for each channels. PID function run in module so PID functions does not slow down the CPU module



Priority Considerations

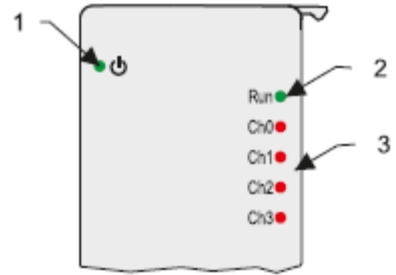
- To avoid damaging the system, do not connect/disconnect the device when power is on
- Make wiring according to user manual to avoid damaging the system.
- Do not touch PLC module terminals when power is on
- Make sure that the PLC module analog input values are in the scale intervals.
- Make sure that the ground line is connected to the PLC module.

General Specification:

Part	Name	Description
General	Power	Internal
	P. Consumption	24V DC Max 2W
	Sensor Connection detection	Each Channels can detect sensor wiring and short circuit conditions.
	Mounting	DIN Rail
Sensor inputs	Qty	2 or 4 Channel
	Resolution	0,1 resolution with 15 bit ADC.
	PT sensor	Pt100 or Pt1000 types Accuracy %0.2@ full scale
	TC Sensor	B,E,J,K,N,R,S,T sensor. Accuracy %0.2@ full scale
	NTC	25°C @10kOhm NTC Accuracy %0.2@ full scale.
	mV	0..60mV range, 0.01mV resolution.
	Groups	1.group is 0 Ch. And 1. Ch. 2 .group is 2. CH. and 3 Ch.
	Protection	Shortcircuit and over voltage connection.
	Wiring type	2,3, or 4 wire connections. Cable compensation is up To 20 ohm.
	Refresh period	10Hz
Environmental	Temperature	-10..+60°C (without icing
	Humidity	5..95%rH

Led Status

- 1) Power Led ; The Led is on when module is powered..
- 2) Run Led ; This Led on when module-PLC configuration made successfully and module is running
- 3) Ch0,Ch1,Ch2,Ch3 Channels status leds. If there is any faults in wiring this leds blinks. All of them is off when in normal condition.



Module Configuration

Extension modules configuration made by GMTSoft editor. There is no need any hardware setting on device. Modul reads sensor temperature in C (Celsius). (Please sue GMTsoft hels manual for details.)
Input filter settings can find in GMTsoft editor. Enter zero for cancel filter function on measurement.

Temperature sensors and scales

- B type (Platinyum-Rodyum) : 0°C..1810°C
- E type (Nickel-Chromium/Copper-Ni) : -40°C..900°C
- J type (Iron/Copper-Nickel) : -180°C..800°C
- K type (Nickel-Chromium/Nickel-Aluminum) : -180°C..1370°C
- N type (Nickel-Ch-Si/Ni-Si-Mg) : -260°C..1290°C
- R type (Pt-Rod/Pt) : -40°C..1760°C
- S type (Pt-Rod%10/Pt) : -40°C..1750°C
- T type (Cop/Cop-Ni) : -260°C..380°C
- Pt100 sensor -200..+800°C
- Pt1000 sensor -200..+600°C •NTC sensor -30..+100°C
- mV (0-60mV) 0.01mV resolution

Sensor Connection

