

FnIO G – Series :

GT-123F

GT-123F(16 Channels, Universal Input Terminal, 24Vdc)

Specification Preliminary

Table of Contents

Table of Contents.....	2
History.....	2
1.ENVIRONMENTSPECIFICATION.....	3
2.GT-123F(16 Channels Universal Input Terminal).....	4
2.1.GT-123F Specification.....	4
2.2.GT-123F Wiring Diagram.....	5
2.3.GT-123F LED Indicator.....	6
2.3.1.LED Indicator.....	6
2.3.2.Channel Status LED.....	6
2.3.3.Mapping data into the image table.....	7

Specification Preliminary

History

REV.	PAGES	REMARKS	DATE	Editor
Preliminary		Preliminary	04.08.2016	HS KIM
1.01		Environment Specification, Input impedance	Jun 03, 2016	DHLEE
1.02		Input filter	Oct 26, 2016	Seokhyun, Jun
1.03		Add missing content	July 14, 2017	HS KIM

Specification Preliminary

1. ENVIRONMENT SPECIFICATION

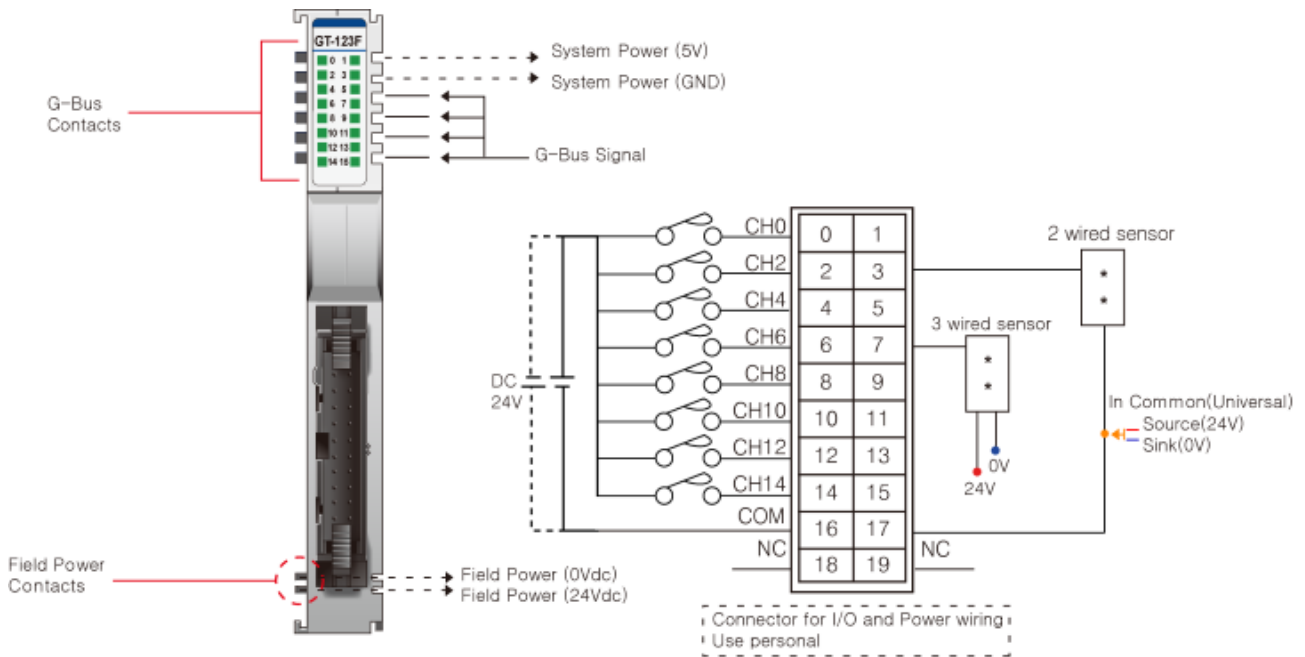
Environment specification	
Operating Temperature	-40°C~70°C
UL Temperature	-20°C~60°C
Storage Temperature	-40°C~85°C
Relative Humidity	5% ~ 90% non-condensing
Mounting	DIN rail
General specification	
Shock Operating	IEC 60068-2-27
Vibration Resistance	Based on IEC 60068-2-6 Sine Vibration - 5 ~ 25Hz : ±1.6mm - 25 ~ 300Hz : 4g - Sweep Rate : 1 Oct/min, 20 cycles Random Vibration - 10 ~ 40 Hz : 0.0125 g ² /Hz - 40 ~ 100 Hz : 0.0125 → 0.002 g ² /Hz - 100 ~ 500 Hz : 0.002 g ² /Hz - 500 ~ 2000 Hz : 0.002 → 1.3 x 10 ⁻⁴ g ² /Hz - Test time : 1hrs for each test
Industrial Emissions	EN61000-6-4/All : 2011
Industrial Immunity	EN 61000-6-2 : 2005
Installation Position	Vertical and horizontal installation is available.
Product Certifications	CE, UL

2. GT-123F (16 Channels Universal Input Terminal)

2.1. GT-123F Specification

Items	Specification
Input Specification	
Inputs per module	16 Points Universal Digital Type
Indicators	16 Green input state
ON-state Voltage	24V dc nominal Min. 15Vdc to Max. 32Vdc
ON-state current	3.05mA maximum/point @32Vdc
OFF-state Voltage	9.3Vdc @ 25°C
Input Signal Delay	OFF to ON : 0.3ms Max ON to OFF : 0.3ms Max
Input filter	Adjustable, up to 10ms
Nominal Input Impedance	10.2K ohm typical
COMMON Type	16 points / 2 COM (Single Common)
General specification	
Power dissipation	50mA maximum @ 5.0Vdc
Isolation	I/O to Logic : Photocoupler isolation
Field Power	Supply voltage : 24Vdc nominal Voltage range : 15~32Vdc Power dissipation: 0mA @ 24Vdc
Wiring	20Pin Connector Type
Weight	52g
Module Size	12mm x 99mm x 70mm
Environment Condition	Refer to '1. Environment Specification'

2.2. GT-123F Wiring Diagram

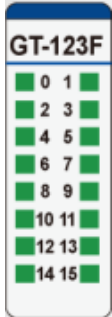


Pin No.	Signal Description	Signal Description	Pin No.
0	Input Channel 0	Input Channel 1	1
2	Input Channel 2	Input Channel 3	3
4	Input Channel 4	Input Channel 5	5
6	Input Channel 6	Input Channel 7	7
8	Input Channel 8	Input Channel 9	9
10	Input Channel 10	Input Channel 11	11
12	Input Channel 12	Input Channel 13	13
14	Input Channel 14	Input Channel 15	15
16	Common(Sink Oper.0V/ Source Oper.24V)	Common(Sink Oper.0V/ Source Oper.24V)	17
18	NC	NC	19

* Although the image above is GT-(Universal input module), it does not matter to refer to wiring diagram.
Refer to the Sink (0V).

2.3. GT-123F LED Indicator

2.3.1. LED Indicator



LED No.	LED Function / Description	LED Color
0	INPUT Channel 0	Green
1	INPUT Channel 1	Green
2	INPUT Channel 2	Green
3	INPUT Channel 3	Green
4	INPUT Channel 4	Green
5	INPUT Channel 5	Green
6	INPUT Channel 6	Green
7	INPUT Channel 7	Green
8	INPUT Channel 8	Green
9	INPUT Channel 9	Green
10	INPUT Channel 10	Green
11	INPUT Channel 11	Green
12	INPUT Channel 12	Green
13	INPUT Channel 13	Green
14	INPUT Channel 14	Green
15	INPUT Channel 15	Green

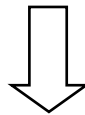
2.3.2. Channel Status LED

Status	LED	To indicate
No Signal	Off	Normal Operation
On Signal	Green	Normal Operation

2.3.3. Mapping data into the image table

- **Input Module Data**

D7	D6	D5	D4	D3	D2	D1	D0
D15	D14	D13	D12	D11	D10	D9	D8



- **Input Image Value**

Bit No	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Byte0	D7	D6	D5	D4	D3	D2	D1	D0
Byte1	D15	D14	D13	D12	D11	D10	D9	D8

2.4. Parameter Data

- **Valid Parameter length: 2 Bytes**
- **Parameter Data**

Bit No	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Byte0	Input Filter value : 0 ~ 10 (unit : ms)							
Byte1	Reserved							