
FnIO G-Series

GT-12FA

GT-12FA(32 Points, Universal Input Terminal, 24Vdc)

Specification

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History

REV.	PAGES	REMARKS	DATE	Editor
Preliminary	8	Preliminary	05.17.2016	HS KIM
Rev 1.01	4,5	Changed Environmental Spec, General Spec	06.03.2016	Joonho, Park
Rev 1.02		Temp spec	Jun 10, 2016	DHLEE
1.03		Input filter	Oct 26, 2016	Seokhyun, Jun
1.04		Add missing content	July 14, 2017	HSKIM

Specification

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
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 ~ 40Hz : 0.0125g ² /Hz - 40 ~ 100Hz : 0.0125 → 0.002g ² /Hz - 100 ~ 500Hz : 0.002g ² /Hz - 500 ~ 2000Hz : 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	EN61000-6-2 : 2005
Installation Position	Vertical and horizontal installation is available
Product Certifications	CE,UL

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2. GT-12FA (32 Points, Universal Input Terminal, 24Vdc)

2.1. GT-12FA Specification

Items	Specification
Input Specification	
Inputs per module	32 Points Universal Digital Type
Indicators	32 Green Input Status LEDs
ON-state Voltage	24Vdc (Min. 15Vdc ~ Max. 32Vdc)
ON-state Current	Max. 3mA / point @ 32Vdc
OFF-state Voltage	9.1V@25°C
Input Signal Delay	OFF to ON : Max. 0.2ms ON to OFF : Max. 0.2ms
Input filter	Adjustable, up to 10ms
Nominal Input Impedance	10.2K Ohm Typical
Common Type	32 Point / External 8COM(Universal)
General Specification	
Power Dissipation	Max. 55mA @ 5Vdc
Isolation	I/O to Logic : Photocoupler Isolation
Field Power	Supply Voltage : 24Vdc nominal Voltage Range : 15~32Vdc * Power dissipation : 0mA @ 24Vdc
Wiring	Module connector : HIF3BA-40D-2.54R
Weight	59g
Module Size	12mm x 109mm x 70mm
Environment Condition	Refer to '1. Environment Specification'

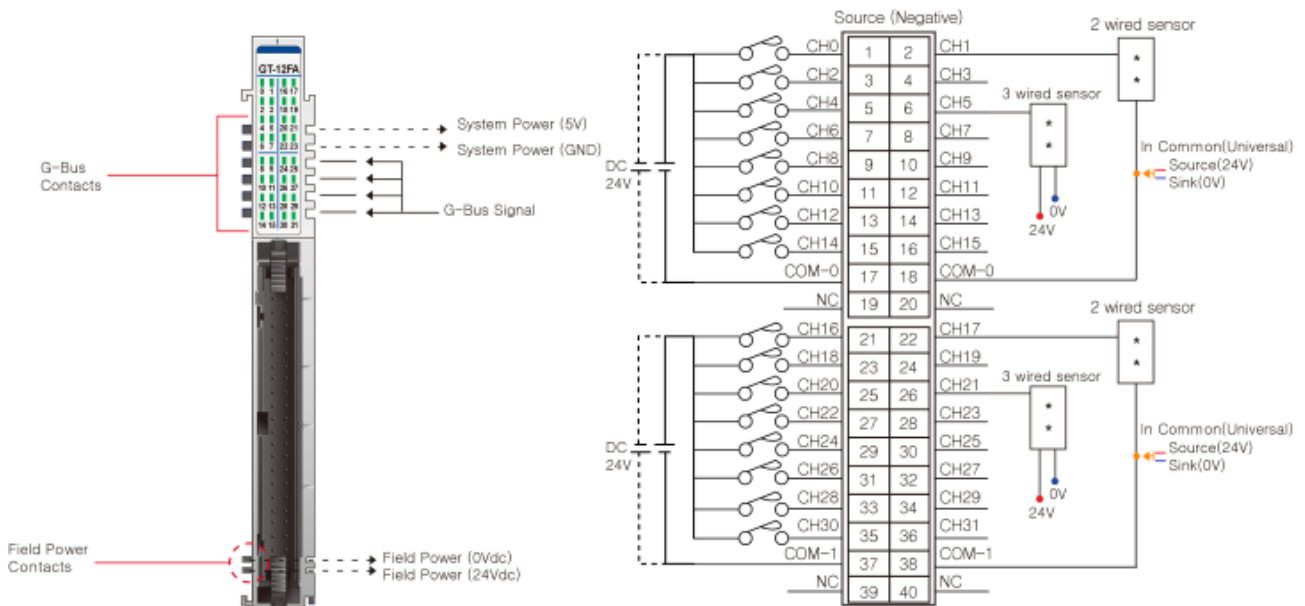
* Operating temperature

-40 ~ 70°C temperature range specification can be guaranteed under the following conditions.

- Supply voltage : 26.4V below.
- Otherwise, temperature specification can be guaranteed with -40 ~ 60°C.

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2.2. GT-12FA 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
20	Input Channel 16	Input Channel 17	21
22	Input Channel 18	Input Channel 19	23
24	Input Channel 20	Input Channel 21	25
26	Input Channel 22	Input Channel 23	27
28	Input Channel 24	Input Channel 25	29
30	Input Channel 26	Input Channel 27	21
32	Input Channel 28	Input Channel 29	33
34	Input Channel 30	Input Channel 31	35
36	Common(Sink Oper.0V/ Source Oper.24V)	Common(Sink Oper.0V/ Source Oper.24V)	37
38	NC	NC	39

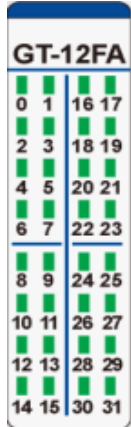
* Although the image above is GT-(Universal input module), it does not matter to refer to wiring diagram.

Refer to the Sink (0V).

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2.3. GT-12FA 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
...
31	INPUT Channel 31	Green

2.3.2. Channel Status LED

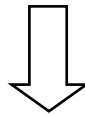
Status	LED	To indicate
Off Signal	Off	No Input Signal
On Signal	Green	Normal Operation

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2.4. 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
D23	D22	D21	D20	D19	D18	D17	D16
D31	D30	D29	D28	D27	D26	D25	D24



- **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
Byte2	D23	D22	D21	D20	D19	D18	D17	D16
Byte3	D31	D30	D29	D28	D27	D26	D25	D24

2.5. 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							