

# **FnIO G – Series :**

## ***GT-224F***

***GT-224F(16 Points, Source Output Terminal, 24Vdc/0.3A)***

# Specification

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## History

REV.	PAGES	REMARKS	DATE	Editor
1.00		Draft	May 6, 2022	Joonho, Park
1.01	5	Change Output Delay Time and Leakage current	Sep 30, 2022	CW, SEO
1.02	6	Changed Diagram / Signal Description	Apr 03, 2023	Soyeong, Park

# Specification

## 1. ENVIRONMENT SPECIFICATION

<b>Environmental specification</b>	
Operation Temperature	-40°C ~60°C
UL Temperature	-20°C ~60°C
Storage Temperature	-40°C ~85°C
Relative Humidity	5%~90% Non-condensing
Mounting	DIN Rail
<b>General specification</b>	
Shock Operating	IEC 60068-2-27
Vibration Resistance	Based on IEC 60068-2-6 DNVGL-CG-0039 : Vibration Class B, 4g
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, FCC

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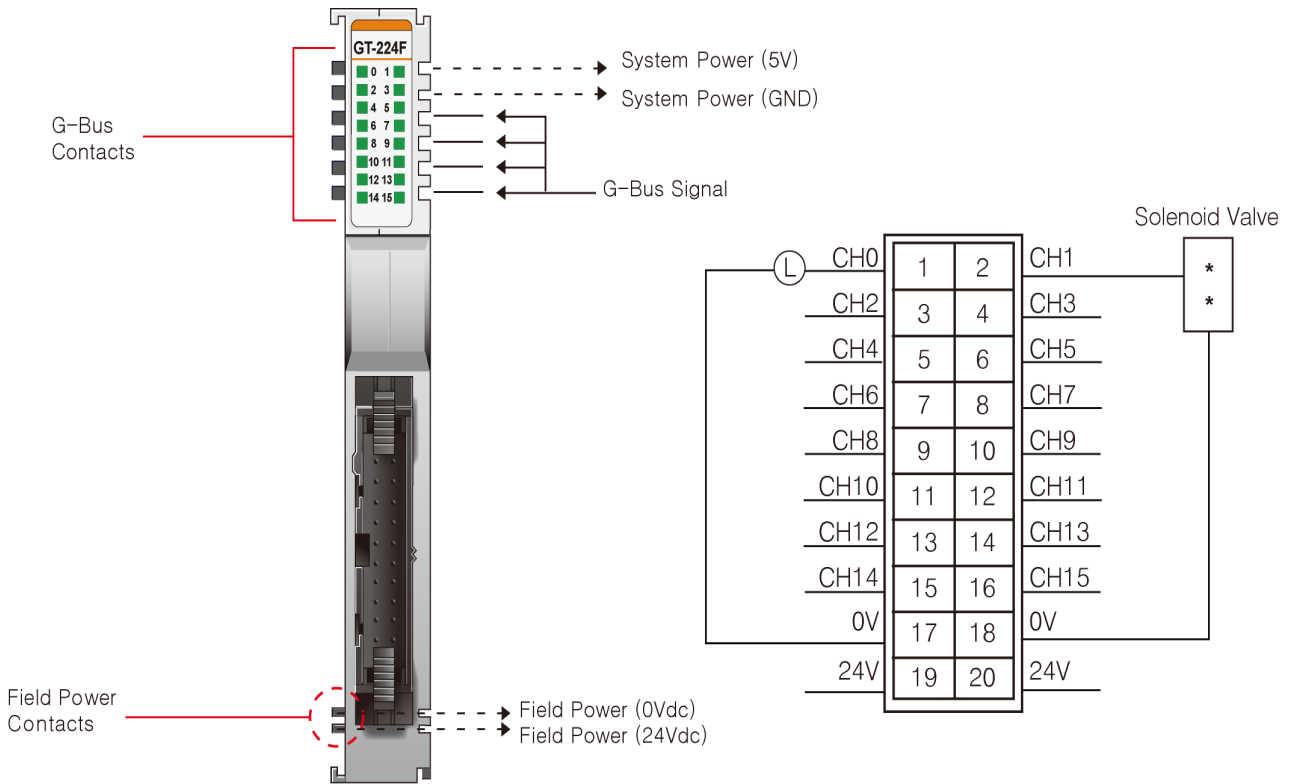
## 2. GT-224F (16 Points Source Output Terminal)

### 2.1. GT-224F Specification

Items	Specification
<b>Input specification</b>	
Output per module	16 points source type
Indicators	16 green output status
Output voltage range	24Vdc nominal Min. 15Vdc ~ Max. 30Vdc
On-state voltage drop	0.5Vdc @ 0.3A
On-state min. current	Min. 1mA
Off-state leakage current	Max. 2uA
Output signal delay	OFF to ON : Max. 0.1ms ON to OFF : Max. 0.6ms
Output current rating	Max. 0.3A per channel / Max. 3.6A per unit
Protection(1)	None
Common type	16 points / 2 COM(Source)
<b>General specification</b>	
Power dissipation	Max. 50mA @ 5Vdc
Isolation	I/O to Logic : photocoupler isolation Field power : non-isolation
UL field power	Supply voltage : 24Vdc nominal, Class 2
Field power	Supply voltage : 24Vdc nominal Voltage range : 15~30Vdc Power dissipation: 20mA @ 24Vdc
Single Wiring	Module connector : HIF3BA-20D-2.54R
Weight	52g
Module size	12mm x 99mm x 70mm
<b>Environment condition</b>	<b>Refer to '1. Environment Specification'</b>

(1) Check the 2.2.1 Wiring Guide.

## 2.2. GT-224F Wiring Diagram



Pin No.	Signal Description	Signal Description	Pin No.
0	Output Channel 0	Output Channel 1	1
2	Output Channel 2	Output Channel 3	3
4	Output Channel 4	Output Channel 5	5
6	Output Channel 6	Output Channel 7	7
8	Output Channel 8	Output Channel 9	9
10	Output Channel 10	Output Channel 11	11
12	Output Channel 12	Output Channel 13	13
14	Output Channel 14	Output Channel 15	15
16	Common (Field Power 0V)	Common (Field Power 0V)	17
18	Field Power 24V	Field Power 24V	19

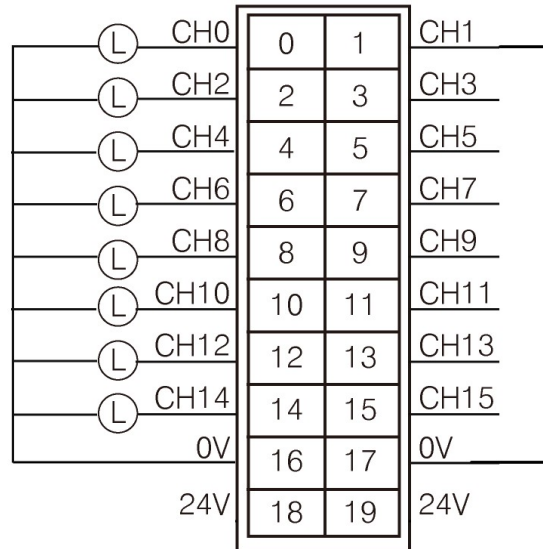
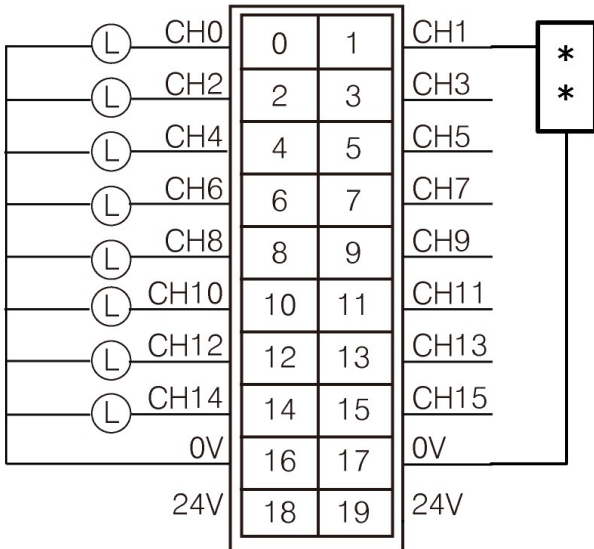
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## 2.2.1. Wiring Guide

WARNING !

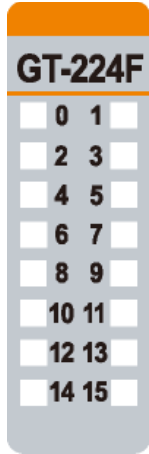
**Observe the following instructions for wiring**

- Observe the maximum output current of the I/O Module. Parts may be damaged.
- Do not connect the input and GND pins without any load. Parts may be damaged.



## 2.3. GT-224F LED Indicator

### 2.3.1. LED Indicator



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

### 2.3.2. Channel Status LED

Status	LED	To indicate
Not Signal	Off	Normal Operation
On Signal	Green	Normal Operation

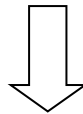


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## 2.4. Mapping data into the image table

- **Output 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



- **Output Module Data**

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

**2.5. Parameter Data**

- **Valid Parameter length: 4 Bytes**
- **Parameter Data**

Bit No	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
<b>Byte0</b>	Fault Action (ch0~ch7) 0: Fault value, 1:Hold last state							
<b>Byte1</b>	Fault Action (ch8~ch15) 0: Fault value, 1:Hold last state							
<b>Byte2</b>	Fault value (ch0~ch7) 0:Off, 1:On							
<b>Byte3</b>	Fault value (ch8~ch15) 0:Off, 1:On							