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# **FnIO G – Series :**

## ***GT-228F***

***GT-228F (16 Points, Source Output Terminal, 24Vdc, 0.5A)***

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History

Rev	Pages	Remarks	Date	Editor
1.00			2022/05/06	Joonho, Park
1.01	5	Change Output Delay Time and Leackage current	2022/09/30	Chiwon, Seo
1.02	6	Change Diagram, Channel to Point	2023/04/03	Soyeong, Park
1.03	4,6,8	Edit Certification / Change Diagram, Status LED	2023/08/04	Suna, Hwang
1.04	1,5	Edit Module Description, Specification	2025/11/27	Suna, Hwang

# Specification

## 1. ENVIRONMENT SPECIFICATION

Environmental specification	
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
General specification	
Shock Operating	IEC 60068-2-27
Vibration Resistance	Based on IEC 60068-2-6, 4g
Industrial Emissions	EN61000-6-4/All : 2011
Industrial Immunity	EN 61000-6-2 : 2019
Installation Position	Vertical and horizontal installation is available
Product Certifications	CE, UL, UKCA

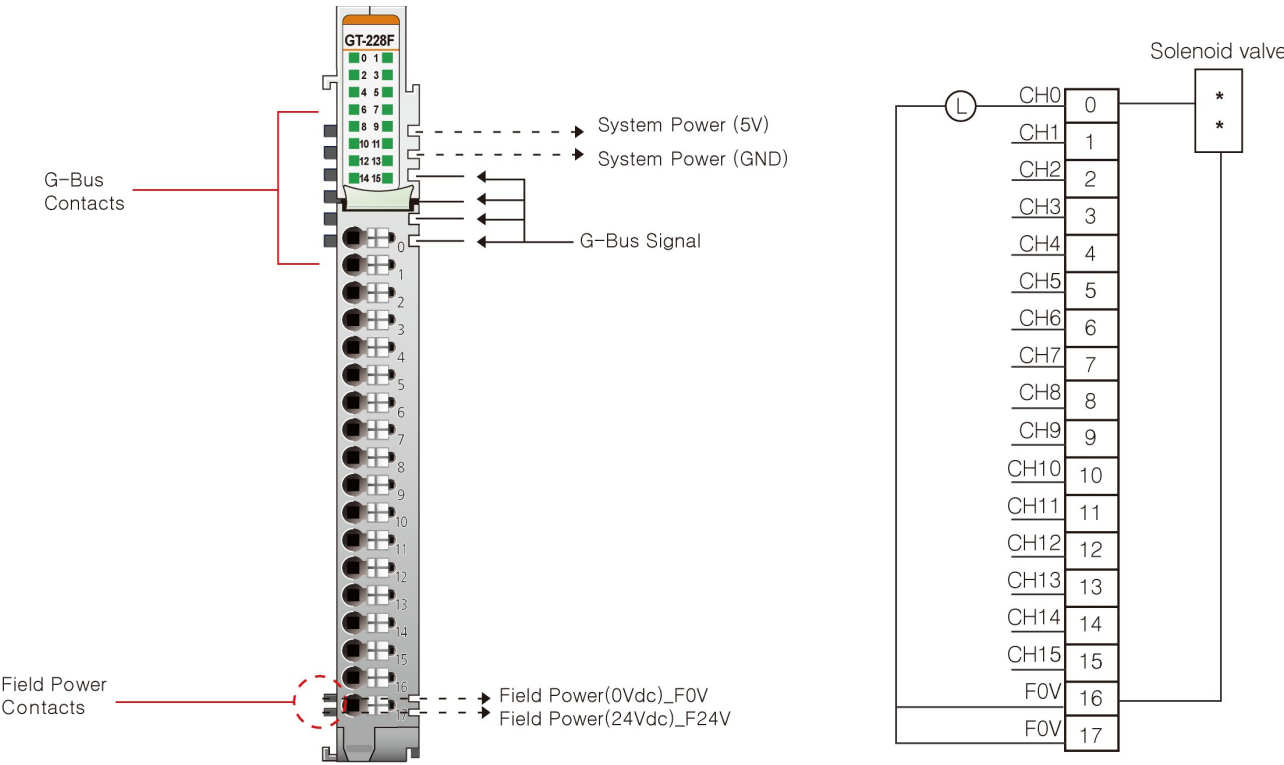
# Specification

## 2. GT-228F (16 Points, Source Output Terminal)

### 2.1. GT-228F 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	0.3Vdc @ 25°C 0.4Vdc @ 60°C
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. 0.4ms
Output current rating	Max. 0.5A per channel / Max. 8.0A per unit
Protection	None
Common type	16 points / 2 COM
<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: 30mA @ 24Vdc
Single Wiring	I/O Cable Max. 0.823mm <sup>2</sup> (AWG 18)
Weight	64g
Module size	12mm x 109mm x 70mm
<b>Environment condition</b>	<b>Refer to '1. Environment Specification'</b>

2.2. GT-228F Wiring Diagram



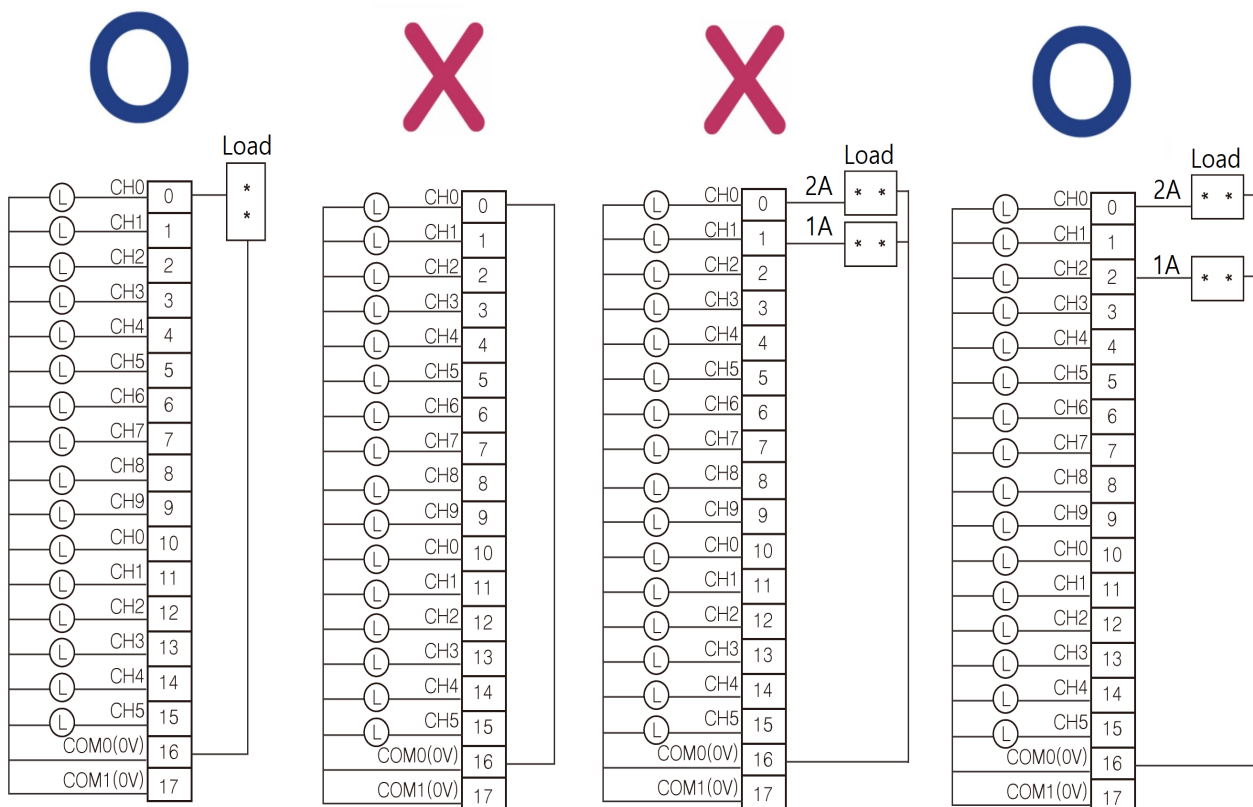
Pin No.	Signal Description
0	Output Channel 0
1	Output Channel 1
2	Output Channel 2
3	Output Channel 3
4	Output Channel 4
5	Output Channel 5
6	Output Channel 6
7	Output Channel 7
8	Output Channel 8
9	Output Channel 9
10	Output Channel 10
11	Output Channel 11
12	Output Channel 12
13	Output Channel 13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

### 2.2.1. Wiring Guide

## WARNING !

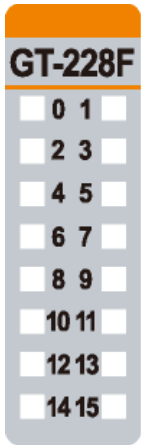
#### Observe the following instructions for wiring

- 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.
- If you are using current above 1A, Do not use next one channel.



2.3. GT-228F 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

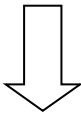
Status	LED	To indicate
No Signal	Off	No Output Signal
On Signal	Green	Output Signal detected



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
Byte0	Fault Action (ch0~ch7) 0: Fault value, 1:Hold last state							
Byte1	Fault Action (ch8~ch15) 0: Fault value, 1:Hold last state							
Byte2	Fault value (ch0~ch7) 0:Off, 1:On							
Byte3	Fault value (ch8~ch15) 0:Off, 1:On							