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# **FnIO G – Series :**

## ***GT-2428***

***GT-2428(8 Points, Source Output With Diagnostics, 24Vdc/0.5A)***

# Specification

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# Specification

## History

REV.	PAGES	REMARKS	DATE	Editor
Preliminary		Preliminary	May 22, 2019	Seokhyun, Jun
1.01	4,5	Shock, Vibration specification changed General specification added(UL)	04.20.2020	JY BAE
1.02		Diagnostics specification alteration	May 21, 2020	Seokhyun, Jun
1.03	6	Changed Diagram / Signal Description / Channel to Point	Apr 03, 2023	Soyeong, Park

# Specification

## 1. ENVIRONMENT SPECIFICATION

<b>Environmental specification</b>	
Operating 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 : 2008/15g, 11ms
Vibration Resistance	Based on IEC 60068-2-6 DNVGL-CG-0039 : 2016/6 Vibration Class B, 4g
Industrial Emissions	EN 61000-6-4 : 2007 +A1:2011
Industrial Immunity	EN 61000-6-2 : 2005
Installation Position	Vertical and horizontal installation is available.
Product Certifications	CE, UL

# Specification

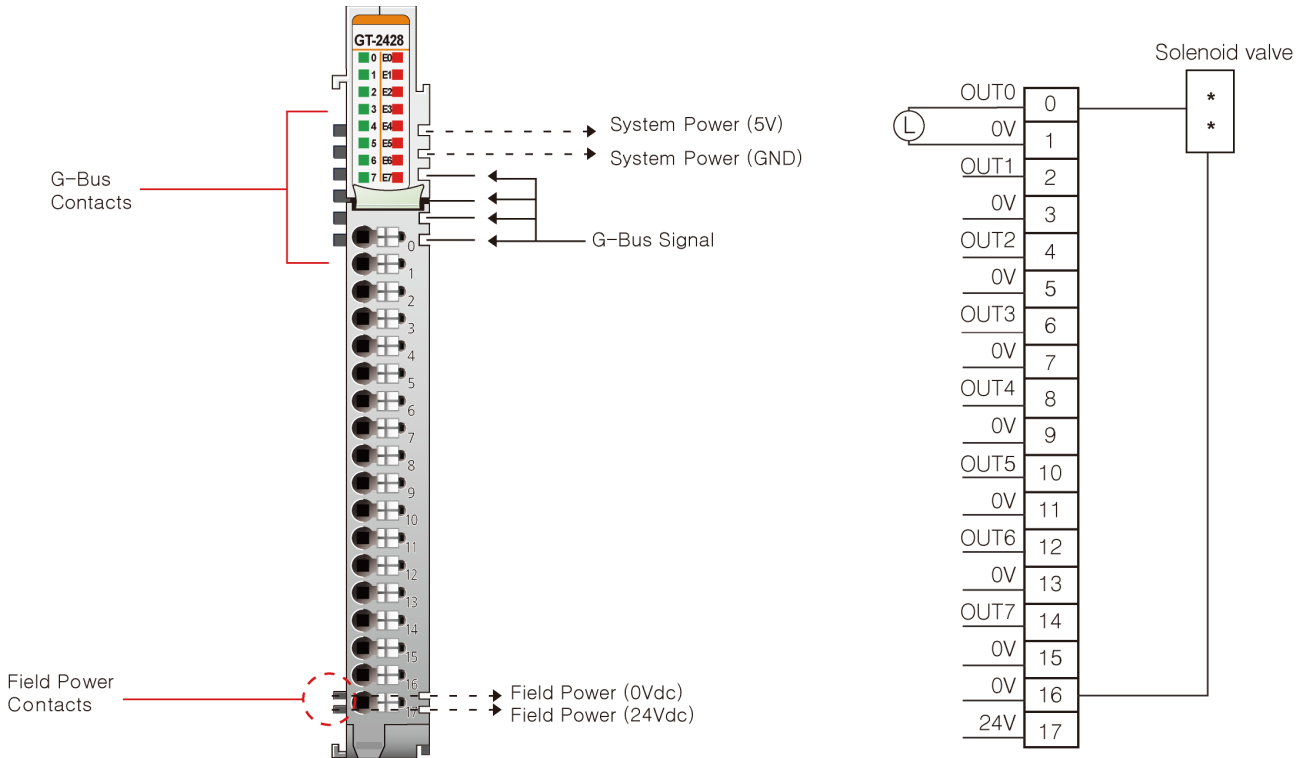
## 2. GT-2428 (8 Points Source Output with Diagnostics)

### 2.1. GT-2428 Specification

Items	Specification
<b>Output specification</b>	
Output per module	8 Points source type
Indicators	8 green output state, 8 red diagnostic state
Output voltage range	24Vdc Nominal Min. 15Vdc ~ Max. 30Vdc
On-state voltage drop	Max. 0.3Vdc @ 25°C Max. 0.5Vdc @ 60°C
On-state min. current	Min. 1mA
Off-state leakage current	Max. 20uA
Output signal delay	OFF to ON : Max.0.3ms ON to OFF : Max.0.5ms
Output current rating	Max. 0.5A per channel / Max. 4A per unit
Protection	Over current limit : 3.5A@ 25°C per each channels Thermal shutdown : 175°C Short circuit protection
Common type	8 points / 2 COM
<b>General specification</b>	
Power dissipation	Max. 35mA @ 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: 35mA @ 24Vdc
Wiring	I/O Cable Max. 0.75mm <sup>2</sup> (AWG 18)
Weight	63g
Module size	12mm x 109mm x 70mm
<b>Environment condition</b>	<b>Refer to 'Environment Specification'</b>

# Specification

## 2.2. GT-2428 Wiring Diagram

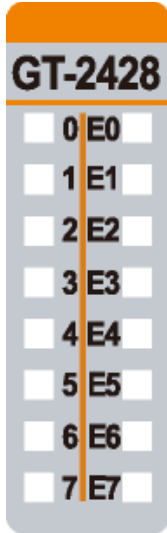


Pin No.	Signal Description
0	Output Channel 0
1	Common (Field Power 0V)
2	Output Channel 1
3	Common (Field Power 0V)
4	Output Channel 2
5	Common (Field Power 0V)
6	Output Channel 3
7	Common (Field Power 0V)
8	Output Channel 4
9	Common (Field Power 0V)
10	Output Channel 5
11	Common (Field Power 0V)
12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

# Specification

## 2.3. GT-2428 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
E0	Channel 0 Diagnostic	Red
E1	Channel 1 Diagnostic	Red
E2	Channel 2 Diagnostic	Red
E3	Channel 3 Diagnostic	Red
E4	Channel 4 Diagnostic	Red
E5	Channel 5 Diagnostic	Red
E6	Channel 6 Diagnostic	Red
E7	Channel 7 Diagnostic	Red

### 2.3.2. Channel Status LED

- LED No. 0~7

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

- LED No. E0~E7

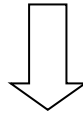
Status	LED	To indicate
Bus Fault	Red (All Leds)	G-Bus Fault
Channel Fault	Red	Short to GND
		Overtemperature
		Current Limitation

# Specification

## 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

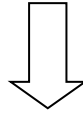


- **Output Module Data**

D7	D6	D5	D4	D3	D2	D1	D0
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- **Input Module Data**

D7	D6	D5	D4	D3	D2	D1	D0
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- **Input Image Value**

Bit No	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Byte0	D7	D6	D5	D4	D3	D2	D1	D0



# Specification

## 2.5. Parameter Data

- Valid Parameter length: 2 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 value (ch0~ch7) 0:Off, 1:On							