
FnIO G – Series :

GT-2418

GT-2418 (8 Points, Sink Output With Diagnostics, 24Vdc/0.5A)

Specification

Table of Contents

[Table of Contents.....2](#)

[History.....3](#)

[1.ENVIRONMENT SPECIFICATION.....4](#)

[2.GT-2418 \(8 Points, Sink Output with Diagnostics\).....5](#)

[2.1.GT-2418 Specification.....5](#)

[2.2.GT-2418 Wiring Diagram.....6](#)

[2.3.GT-2418 LED Indicator.....7](#)

[2.3.1.LED Indicator.....7](#)

[2.3.2.Channel Status LED.....7](#)

[2.4.Mapping data into the image table.....8](#)

[2.5.Parameter Data.....9](#)

Specification

History

Rev	Pages	Remarks	Date	Editor
1.00			2019/05/27	Seokhyun, Jun
1.01	4,5	Shock, Vibration specification changed General specification added(UL)	2020/04/20	Juyong, Bae
1.02	6	Change Diagram, Signal Description, Channel to Point	2023/04/03	Soyeong, Park
1.03	6,7,8	Change Diagram, Status LED / Edit LED Description / Add Diagnostic further explanation	2023/08/08	Suna, Hwang

Specification

1. ENVIRONMENT SPECIFICATION

Environmental specification	
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
General specification	
Shock Operating	IEC 60068-2-27 : 2008/15g, 11ms
Vibration Resistance	Based on IEC 60068-2-6, 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

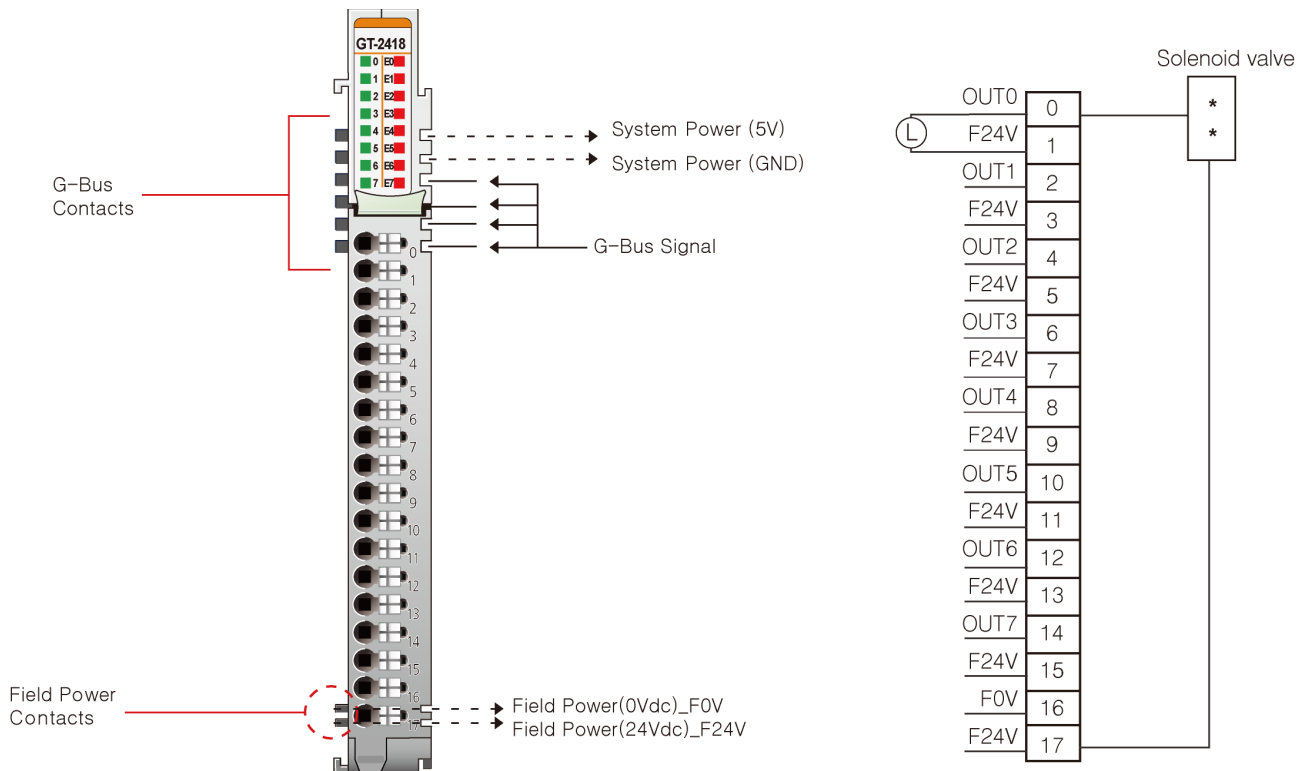
Specification

2. GT-2418 (8 Points, Sink Output with Diagnostics)

2.1. GT-2418 Specification

Items	Specification
Output specification	
Output per module	8 points sink type
Indicators	8 green output state, 8 red diagnostic state
Output voltage range	24Vdc nominal 15Vdc ~ 30Vdc @ 60°C
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. 0.4ms
Output current rating	Max. 0.5A per channel / Max. 4A per unit
Protection	Over current limit: Min. 3.5A @ 25°C per each channels Thermal shutdown : 175°C Short circuit protection
Common type	8 points / 2 COM
General specification	
Power dissipation	Max. 55mA @ 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
Wiring	I/O Cable Max. 0.823mm ² (AWG 18)
Weight	63g
Module size	12mm x 109mm x 70mm
Environment condition	Refer to 'Environment Specification'

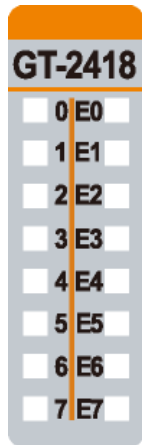
2.2. GT-2418 Wiring Diagram



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

2.3. GT-2418 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
No Signal	Off	No Output Signal
On Signal	Green	Output Signal detected

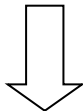
- LED No. E0~E7

Status	LED	To indicate
Bus Fault	Red (All)	G-Bus Fault
Channel Fault	Red	Field Power Off
		Short to VCC
		Overtemperature
		Current Limitation

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

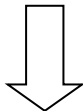


● Output Module Data

D7	D6	D5	D4	D3	D2	D1	D0
----	----	----	----	----	----	----	----

● Input Module Data

D7	D6	D5	D4	D3	D2	D1	D0
----	----	----	----	----	----	----	----



● Input Image Value

Bit No	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Byte0	D7	D6	D5	D4	D3	D2	D1	D0
Diagnostic error status for Output signal								

* D0~7 : Diagnostic error status for Output Channel 0~7
- 0 : Normal Operation
- 1 : Field Power Off / Short to VCC / Overtemperature / Current Limitation
(All bits '1' : G-Bus Fault)

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							