
FnIO G – Series :

GT-1C18

***GT-1C18 (Total 16 Points, Combination DI/DO,
8PTs Input + 8PTs Output, 5Vdc)***

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History

Rev	Pages	Remarks	Date	Editor
1.00			2021/06/21	SeongHyeon, Park
1.01	6	Change Diagram, Channel to Point	2023/04/03	Soyeong, Park
1.02	4,6,7	Edit Certification / Change Diagram, Status LED	2023/08/04	Suna, Hwang

Specification

1. ENVIRONMENT SPECIFICATION

Environmental specification	
Operation Temperature	-40°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

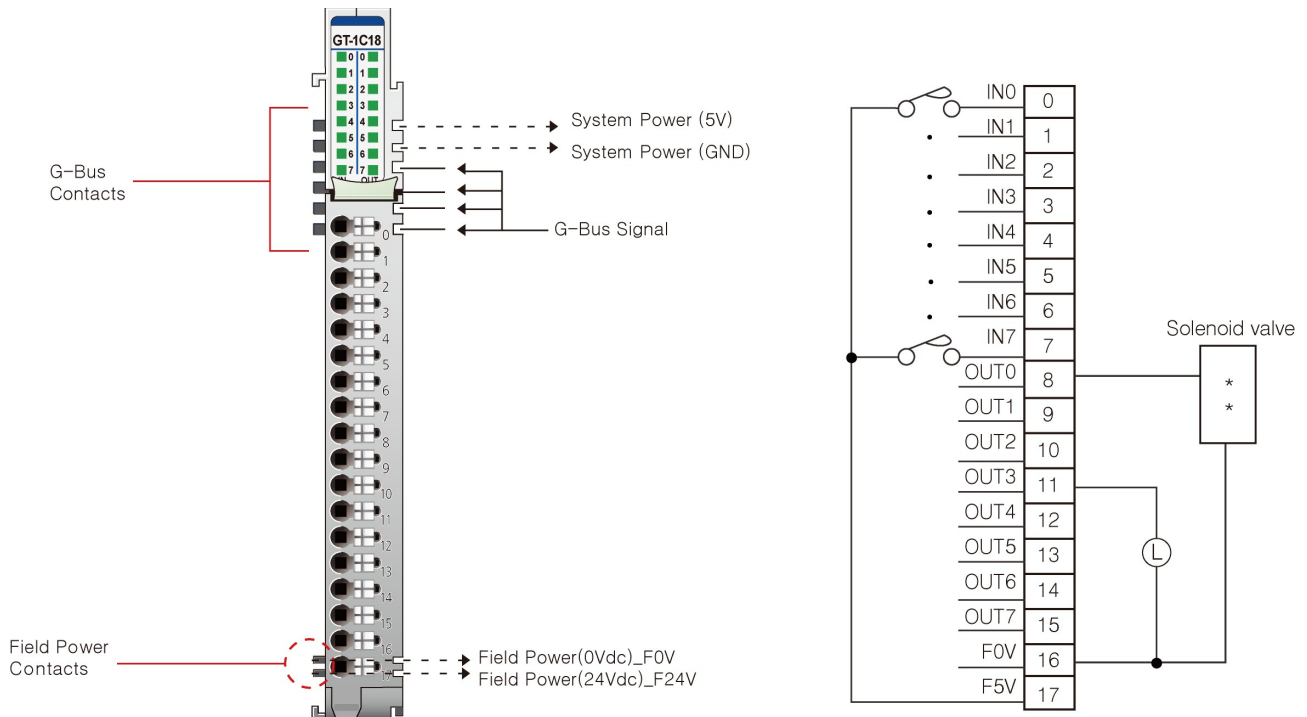
Specification

2. GT-1C18 (Combination DI/DO, Input/Output, 5Vdc)

2.1. GT-1C18 Specification

Items	Specification
Input Specification	
Input per module	8 point Input (CMOS)
Indicators	8 green input status
On-state voltage – Signal Value(“1”)	5Vdc nominal 3 ~ 6Vdc @ 60°C (> 3.5V)
On-state current	5uA @ 5Vdc 0.1mA @ 6Vdc
Off-state voltage – Signal Value(“0”)	2.6Vdc @ 25°C (< 1.5V)
Input signal delay	OFF to ON : 0.3ms Max ON to OFF : 0.3ms Max
Input filter	Adjustable, up to 10ms
Nominal input impedance	1M ohm typical
Output Specification	
Output per module	8 point Output (CMOS, push-pull)
Indicators	8 green output status
Output voltage range	5Vdc nominal
On-state voltage drop	0.3Vdc @ 5mA, 25°C
On-state min. current	Min. 1mA
Off-state leakage current	Max. 1uA
Output signal delay	OFF to ON : 0.3ms Max ON to OFF : 0.3ms Max
Output current rating	5mA per channel nominal / Max. 20mA per channel
Protection	Over current limit : 39mA@ 25°C per each channels Short circuit protection
Additional 5V Output	5V, Max.100mA
General specification	
Power dissipation	Max. 45mA @ 5Vdc
Isolation	I/O to Logic : photocoupler isolation
UL field power	Supply voltage : 24Vdc nominal, Class 2
Field power	Supply voltage : 24Vdc nominal Voltage range : 15 ~ 32Vdc Power dissipation : 15mA @ 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-1C18 Wiring Diagram

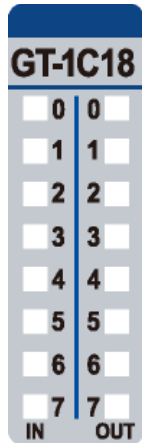


Pin No.	Signal Description
0	Input Channel 0
1	Input Channel 1
2	Input Channel 2
3	Input Channel 3
4	Input Channel 4
5	Input Channel 5
6	Input Channel 6
7	Input Channel 7
8	Output Channel 0
9	Output Channel 1
10	Output Channel 2
11	Output Channel 3
12	Output Channel 4
13	Output Channel 5
14	Output Channel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

Specification

2.3. GT-1C18 LED Indicator

2.3.1. LED Indicator



LED No.	LED Function / Description	LED Color
0(Left Side)	Digital Input #0	Green
1	Digital Input #1	Green
2	Digital Input #2	Green
3	Digital Input #3	Green
4	Digital Input #4	Green
5	Digital Input #5	Green
6	Digital Input #6	Green
7	Digital Input #7	Green
0(Right Side)	Digital Output #0	Green
1	Digital Output #1	Green
2	Digital Output #2	Green
3	Digital Output #3	Green
4	Digital Output #4	Green
5	Digital Output #5	Green
6	Digital Output #6	Green
7	Digital Output #7	Green

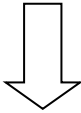
2.3.2. Channel Status LED

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

2.4. Mapping data into the image table

● Input Module Data

D7	D6	D5	D4	D3	D2	D1	D0
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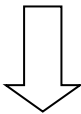


● Input Image Value

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

● 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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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 value(ch0~ch7) 0: Off, 1: On							
Byte2	Input Filter value : 0 ~ 10 (unit : ms)							
Byte3	Reserved							

* You can check the status of Operation Selection through LED.