

# **FnIO G – Series :**

## ***GT-12DF***

***GT-12DF (16 Points, Universal Input Terminal, 24Vdc)***

# Specification

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History

Rev	Pages	Remarks	Date	Editor
1.00			2017/10/16	Hongseok, Kim
1.02		Specification Revision	2018/04/12	Seokhyun, Jun
1.03		Input specification changed	2020/02/06	Seokhyun, Jun
1.04		Shock, Vibration specification changed General specification added(UL)	2020/04/20	Joonho, Park
1.05	6	Change Diagram, Channel to Point	2023/03/30	Soyeong, Park
1.06	4,6,7	Edit Certification / Change Diagram, Status LED	2023/08/04	Suna, Hwang
1.07	6	Delete text related to Wiring Diagram	2023/12/15	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 : 2005
Installation Position	Vertical and horizontal installation is available
Product Certifications	CE, UL

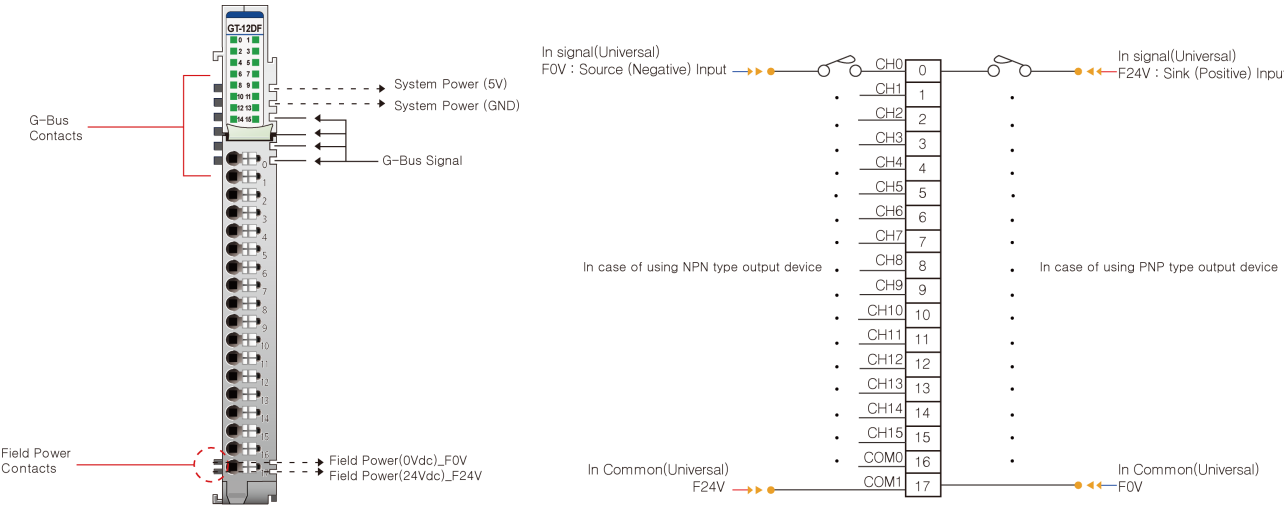
# Specification

## 2. GT-12DF (16 Points, Universal Input Terminal)

### 2.1. GT-12DF Specification

Items	Specification
<b>Input specification</b>	
Inputs per module	16 points universal type
Indicators	16 green input status
ON-state voltage	24Vdc nominal 15 ~ 26.4Vdc @ 60°C
ON-state current	4mA @ 24Vdc 5mA @ 30Vdc
OFF-state voltage	12.5Vdc @ 25°C
Input signal delay	OFF to ON : Max. 0.3ms ON to OFF : Max. 0.3ms
Input filter	Adjustable, up to 10ms
Nominal input impedance	5.6K ohm typical
Common type	16 points / 2 COM(Universal)
<b>General specification</b>	
Power dissipation	Max. 50mA @ 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 : 15~30Vdc Power dissipation: 0mA @ 24Vdc
Single wiring	I/O Cable Max. 0.823mm <sup>2</sup> (AWG 18)
Weight	63g
Module size	12mm x 109mm x 70mm
<b>Environment condition</b>	<b>Refer to '1. Environment specification'</b>

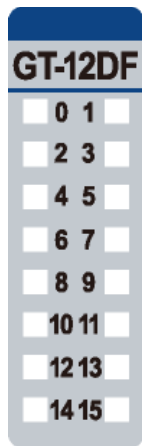
2.2. GT-12DF Wiring Diagram



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	Input Channel 8
9	Input Channel 9
10	Input Channel 10
11	Input Channel 11
12	Input Channel 12
13	Input Channel 13
14	Input Channel 14
15	Input Channel 15
16	Common (Sink Oper.0V / Source Oper.24V)
17	Common (Sink Oper.0V / Source Oper.24V)

## 2.3. GT-12DF LED Indicator

### 2.3.1. LED Indicator



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

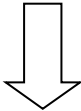
### 2.3.2. Channel Status LED

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

2.4. Mapping data into the image table

● Input Module Data

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



● Input 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



2.5. Parameter Data

- Valid Parameter length: 2 Bytes
- Parameter Data

Bit No	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Byte0	Input Filter value : 0 ~ 10 (unit : ms)							
Byte1	Reserved							