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# **FnIO G-Series**

## **GT-22CA**

**GT-22CA(32 Points, Source Output Terminal, 24Vdc, 0.3A)**

# Specification

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## History

REV.	PAGES	REMARKS	DATE	Editor
1.00	9	ALL TEST	05.17.2016	HS KIM
1.01	4,5	4p : Environmnetal Spec. is changed 5p : All channel output is added.	06. 03. 2016	Hong Jin Hyun
1.02	5	Field Power dissipation	03. 31. 2017	HS KIM

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## 1. Environment Specification

<b>Environmental Specification</b>	
Operation Temperature	-40°C ~ 70°C
UL Temperature	-20°C ~ 60°C
Non-Operating Temperature	-40°C ~ 85°C
Relative Humidity	5% ~ 90% Non-condensing
Operating Altitude	2,000m
Mounting	DIN Rail
<b>General Specification</b>	
Shock Operating	IEC 60068-2-27
Vibration Resistance	<p>Sine Vibration (Based on IEC 60068-2-6)</p> <ul style="list-style-type: none"> <li>- 5 ~ 25Hz : ±1.6mm</li> <li>- 25 ~ 300Hz : 4g</li> <li>- Sweep Rate : 1 Oct/min, 20 Sweeps</li> </ul> <p>Random Vibration (Based on IEC 60068-2-64)</p> <ul style="list-style-type: none"> <li>- 10 ~ 40 Hz : 0.0125 g<sup>2</sup>/Hz</li> <li>- 40 ~ 100 Hz : 0.0125 → 0.002 g<sup>2</sup>/Hz</li> <li>- 100 ~ 500 Hz : 0.002 g<sup>2</sup>/Hz</li> <li>- 500 ~ 2000 Hz : 0.002 → 1.3 x 10<sup>-4</sup>g<sup>2</sup>/Hz</li> <li>- Test time : 1hrs for each test</li> </ul>
Industrial Emissions	EN 61000-6-4/A11 : 2011
Industrial Immunity	EN 61000-6-2 : 2005
Installation Position	Vertical and horizontal installation is available.
Product Certifications	CE,UL

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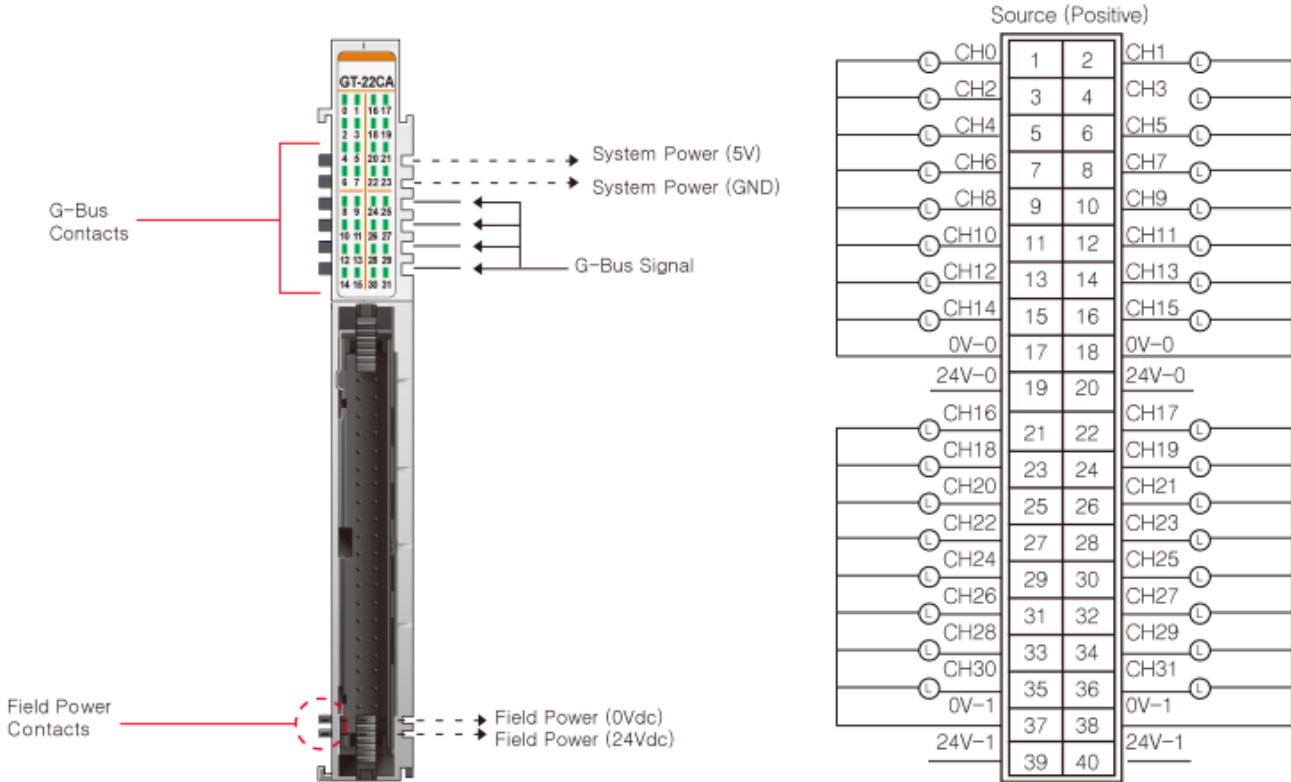
## 2. GT-22CA (32 Points, Source Output Terminal, 24Vdc, 0.3A)

### 2.1. GT-22CA Specification

Items	Specification
<b>Output Specification</b>	
Output Per Module	32 Points Source type
Indicators	32 Green Output Status LEDs
Output Voltage Range	24Vdc (Min. 15Vdc ~ Max. 32Vdc)
ON-state Voltage Drop	Max. 0.3Vdc @ 25°C / 0.5Vdc @ 60°C
ON-State Min. Current	Min. 1mA / Channel
OFF-State Leakage Current	Max. 5uA
Output Signal Delay	OFF to ON : Max. 0.3ms ON to OFF : Max. 0.5ms 0ch~15ch < 16ch~31ch : max. 20us
Output Current Rating	Max. 0.3A per channel /Max. 6.0A per unit
Protection	Over Current limit : Min 6.5A@ 25°C per each channels Thermal Shutdown : Min 4A@ 25°C per each channels Short circuit protection
Common Type	32 points / 4 Common
<b>General Specification</b>	
Power Dissipation	Max. 65mA @ 5Vdc
Isolation	I/O to Logic : Photocoupler Isolation Field Power : Non-Isolation
Field Power	Supply Voltage : 24Vdc nominal Voltage Range : 15~32Vdc Power dissipation: 30mA @32Vdc
Wiring	Module connector : HIF3BA-40D-2.54R
Weight	63g
Module Size	12mm x 109mm x 70mm
<b>Environment Condition</b>	<b>Refer to '1. Environment Specification'</b>

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## 2.2. GT-22CA Wiring Diagram



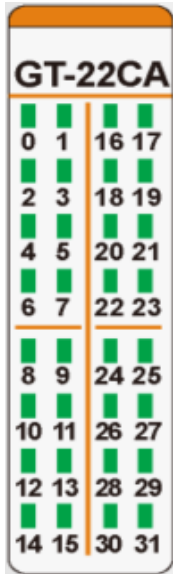
Pin No.	Signal Description	Signal Description	Pin No.
0	Output Channel 0	Output Channel 1	1
2	Output Channel 2	Output Channel 3	3
4	Output Channel 4	Output Channel 5	5
6	Output Channel 6	Output Channel 7	7
8	Output Channel 8	Output Channel 9	9
10	Output Channel 10	Output Channel 11	11
12	Output Channel 12	Output Channel 13	13
14	Output Channel 14	Output Channel 15	15
16	Common (Field Power 0V)	Common (Field Power 0V)	17
18	Common (Field Power 24V)	Common (Field Power 24V)	19
20	Output Channel 16	Output Channel 17	21
22	Output Channel 18	Output Channel 19	23
24	Output Channel 20	Output Channel 21	25
26	Output Channel 22	Output Channel 23	27
28	Output Channel 24	Output Channel 25	29
30	Output Channel 26	Output Channel 27	31
32	Output Channel 28	Output Channel 29	33
34	Output Channel 30	Output Channel 31	35

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36	Common(Field Power 0V)	Common (Field Power 0V)	37
38	Common(Field Power 24V)	Common (Field Power 24V)	39

### 2.3. GT-22CA 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
...	...	...
31	OUTPUT Channel 31	Green

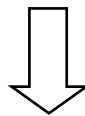
#### 2.3.2. Channel Status LED

Status	LED	To indicate
Off Signal	Off	No Output Signal
On Signal	Green	Normal Operation

## 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
Byte2	D23	D22	D21	D20	D19	D18	D17	D16
Byte3	D31	D30	D29	D28	D27	D26	D25	D24



- **Output Module Data**

D7	D6	D5	D4	D3	D2	D1	D0
D15	D14	D13	D12	D11	D10	D9	D8
D23	D22	D21	D20	D19	D18	D17	D16
D31	D30	D29	D28	D27	D26	D25	D24



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## 2.5. Parameter Data

- Valid Parameter length : 8 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 Action (ch16~ch23)				0: Fault value, 1:Hold last state			
Byte3	Fault Action (ch24~ch31)				0: Fault value, 1:Hold last state			
Byte4	Fault value (ch0~ch7)				0:Off, 1:On			
Byte5	Fault value (ch8~ch15)				0:Off, 1:On			
Byte6	Fault value (ch16~ch23)				0:Off, 1:On			
Byte7	Fault value (ch24~ch31)				0:Off, 1:On			