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# **FnIO G – Series :**

## ***GT-4354***

***GT-4354 (4Channels, Current Output, 4~20mA, 550ohm, 16bit, 18RTB)***

# Specification

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**History**

REV.	PAGES	REMARKS	DATE	Editor
1.00		New Document	Oct 18, 2021	Soyeong, Park
1.01		Edit Field Power Dissipation	Feb 01, 2023	Soyeong, Park
1.02		Edit Module Error @25°C	Mar 10, 2023	Soyeong, Park

## 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 : Vibration Class B, 4g
Industrial Emissions	EN61000-6-4/All : 2011
Industrial Immunity	EN61000-6-2 : 2005
Installation Position	Vertical and horizontal installation is available
Product Certifications	CE, UL, FCC

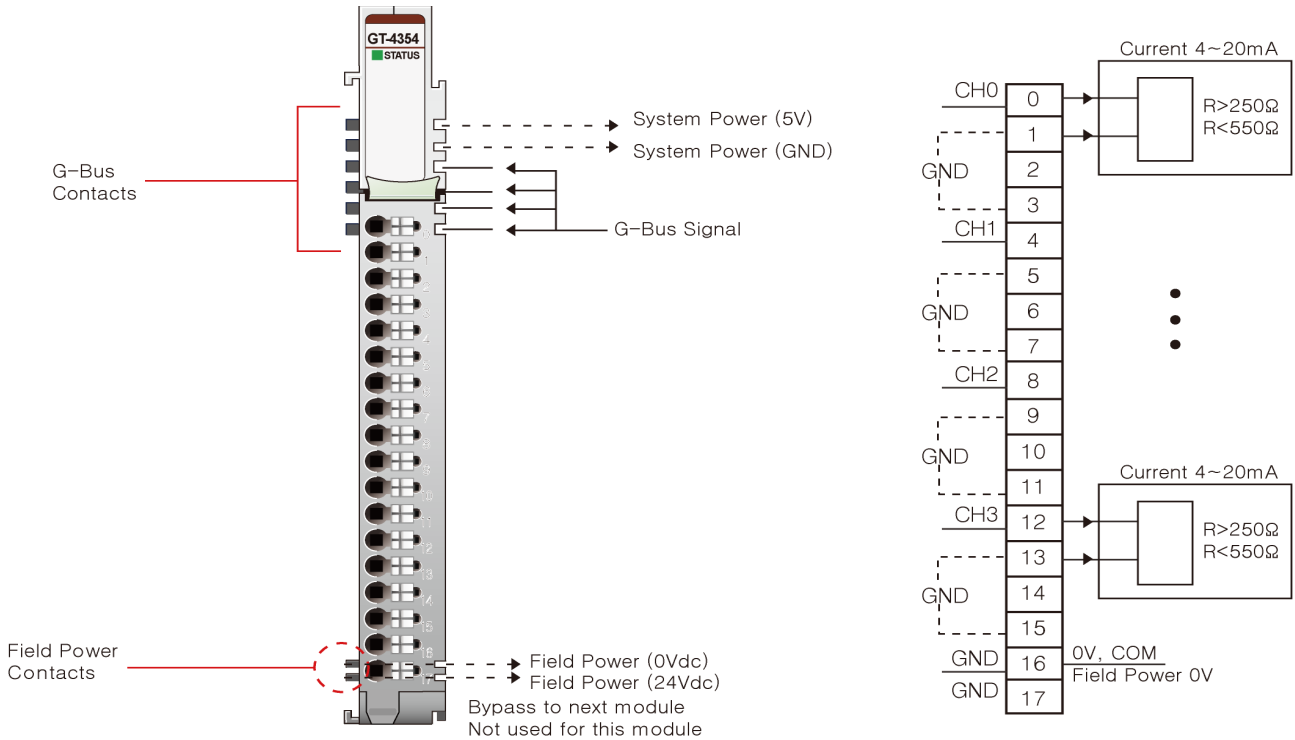
# Specification

## 2. GT-4354 (4 Channels Current Output, 4~20mA, 16bits)

### 2.1. GT-4354 Specification

Items	Specification
<b>Output Specification</b>	
Outputs per module	4 Channels single ended, non-isolated between channel
Indicators(Logic side )	1 Green G-Bus status
Resolution in Ranges	16 bit (Include Sign) 15 bits : 0.49uA/Bit
Output Range	4~20mA
Data Format	16bits Integer (2' compliment)
Module Error	±0.2% Full Scale @ 25°C ±0.3% Full Scale @ -40°C, 60°C
Load Resistance	Min.250Ω, Max.550Ω
Diagnostic	Field Power Off : LED Blinking
Conversion Time	0.15msec / All channel
Calibration	Not Required
Common Type	10 Common, Field Power 0V is Common(AGND)
<b>General Specification</b>	
Power dissipation	Max. 30mA @ 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 : 18~30Vdc Power Dissipation : Max. 110mA @ 24Vdc
Wiring	I/O Cable Max. 1.0mm <sup>2</sup> (AWG 18)
Weight	63g
Module Size	12mm x 109mm x 70mm
<b>Environment Condition</b>	<b>Refer to 'Environment Specification'</b>

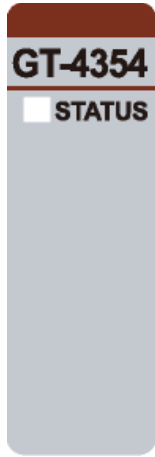
## 2.2. GT-4354 Wiring Diagram



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

## 2.3. GT-4354 LED Indicator

### 2.3.1. LED Indicator



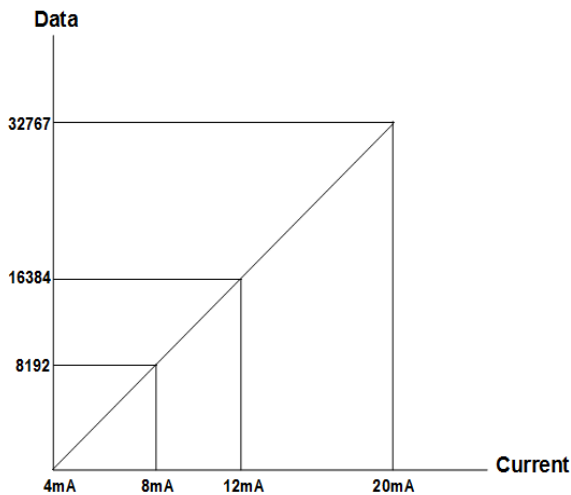
LED No.	LED Function / Description	LED Color
0	Status LED	Green

### 2.3.2. Channel Status LED

Status	LED	To indicate
G-Bus Status	Off Green	Disconnection Connection
Field Power Error	Status Channel Repeat the Green and Off	Field power is unconnected.

### 2.3.3. Data value / Current

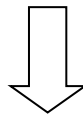
Current	4.0mA	8.0mA	12.0mA	20.0mA
Data(Hex)	H0000	H2000	H4000	H7FFF



## 2.4. Mapping data from the image table

- **Output Image Value**

Bit No	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Byte 0	Analog Output Ch0 Low byte							
Byte 1	Analog Output Ch0 High byte							
Byte 2	Analog Output Ch1 Low byte							
Byte 3	Analog Output Ch1 High byte							
Byte 4	Analog Output Ch2 Low byte							
Byte 5	Analog Output Ch2 High byte							
Byte 6	Analog Output Ch3 Low byte							
Byte 7	Analog Output Ch3 High byte							



- **Output Module Data - 8byte Output Data**

Analog Output Ch0
Analog Output Ch1
Analog Output Ch2
Analog Output Ch3

## 2.5. Parameter Data

- **Valid Parameter length: 4 Bytes**
- **Parameter Data**

Bit No	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
<b>Byte0</b>	Fault Action for channel 3		Fault Action for channel 2		Fault Action for channel 1		Fault Action for channel 0	
	00: Fault Value 01: Hold last state 10: Low Limit 11:High Limit							
<b>Byte1</b>	Not used							
<b>Byte2</b>	Fault Value Low Byte							
<b>Byte3</b>	Fault Value High Byte							