

# **FnIO G – Series :**

## ***GT-3464***

***GT-3464 (4 Channels, Voltage Input, 0~10Vdc / 0~5Vdc / 1~5Vdc, 16bit)***

# Specification

## Table of Contents

<a href="#">Table of Contents.....</a>	<a href="#">2</a>
<a href="#">History.....</a>	<a href="#">3</a>
<a href="#">1.ENVIRONMENT SPECIFICATION.....</a>	<a href="#">4</a>
<a href="#">2.GT-3464 (4 CHANNELS VOLTAGE INPUT, 0~10Vdc / 0~5Vdc / 1~5Vdc, 16BIT).....</a>	<a href="#">5</a>
<a href="#">2.1.GT-3464 Specification.....</a>	<a href="#">5</a>
<a href="#">2.2.GT-3464 Wiring Diagram.....</a>	<a href="#">6</a>
<a href="#">2.3.GT-3464 LED Indicator.....</a>	<a href="#">7</a>
<a href="#">2.3.1.LED Indicator.....</a>	<a href="#">7</a>
<a href="#">2.3.2.Channel Status LED.....</a>	<a href="#">7</a>
<a href="#">2.3.3.Data value / Voltage.....</a>	<a href="#">7</a>
<a href="#">2.4.Mapping data into the image table.....</a>	<a href="#">9</a>
<a href="#">2.5.Parameter Data.....</a>	<a href="#">9</a>

**History**

<b>REV.</b>	<b>PAGES</b>	<b>REMARKS</b>	<b>DATE</b>	<b>Editor</b>
1.00		Preliminary	Mar 09, 2018	Soyeong, Park
1,01	5	Edit Resolution in Range	June 14, 2018	Soyeong, Park
1.02		Edit conversion time	Apr 17, 2020	Seokhyun, Jun

# Specification

## 1. ENVIRONMENT SPECIFICATION

<b>Environmental specification</b>	
Operating Temperature	-40°C~70°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

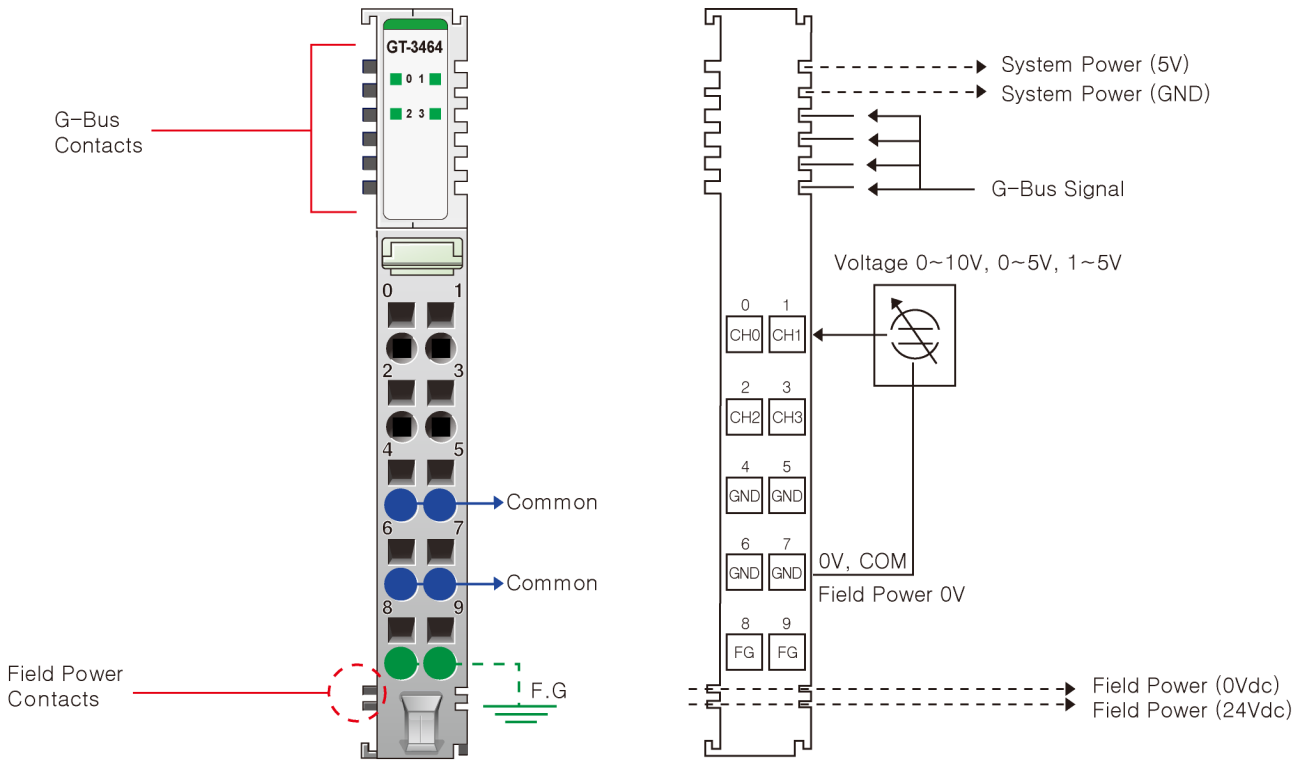
# Specification

## 2. GT-3464 (4 CHANNELS VOLTAGE INPUT, 0~10Vdc / 0~5Vdc / 1~5Vdc, 16BIT)

### 2.1. GT-3464 Specification

Items	Specification
<b>Input Specification</b>	
Inputs per module	4 Channels single ended, non-isolated between channel
Indicators(Logic side )	4 Green Input status
Resolution in Ranges	16 bit (Include Sign) 15 bits : 0.31mV/bit(0~10V) , 0.15mV/bit(0~5V), 0.12mV/bit(1~5Vdc)
Input Current Range	0~10Vdc, 0~5Vdc, 1~5Vdc
Data Format	16bits Integer (2's complement)
Module Error	±0.1% Full Scale @ 25°C ambient ±0.3% Full Scale @ -40°C, 70°C
Input Impedance	500kΩ
Diagnostic	Diagnostic Field Power Off : LED Blinking Field Power On : LED Off < 0.5% (Maximum Input Value) Field Power On : LED On > 0.5% (Maximum Input Value)
Conversion Time	0.4msec / All channel
Calibration	Not Required
Common Type	4 Common, Field Power 0V is Common(AGND)
<b>General specification</b>	
Power dissipation	Max. 25mA @ 5Vdc
Isolation	I/O to Logic : 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. 25mA @ 24Vdc
Wiring	I/O Cable Max. 2.0mm <sup>2</sup> (AWG 14)
Torque	0.8Nm(7lb-in)
Weight	58g
Module Size	12mm x 99mm x 70mm
<b>Environment Condition</b>	<b>Refer to 'Environment Specification'</b>

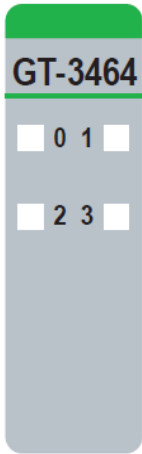
## 2.2. GT-3464 Wiring Diagram



Pin No.	Signal Description	Signal Description	Pin No.
0	Input Channel 0	Input Channel 1	1
2	Input Channel 2	Input Channel 3	3
4	Input Channel Common(AGND)	Input Channel Common(AGND)	5
6	Input Channel Common(AGND)	Input Channel Common(AGND)	7
8	F.G	F.G	9

## 2.3. GT-3464 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

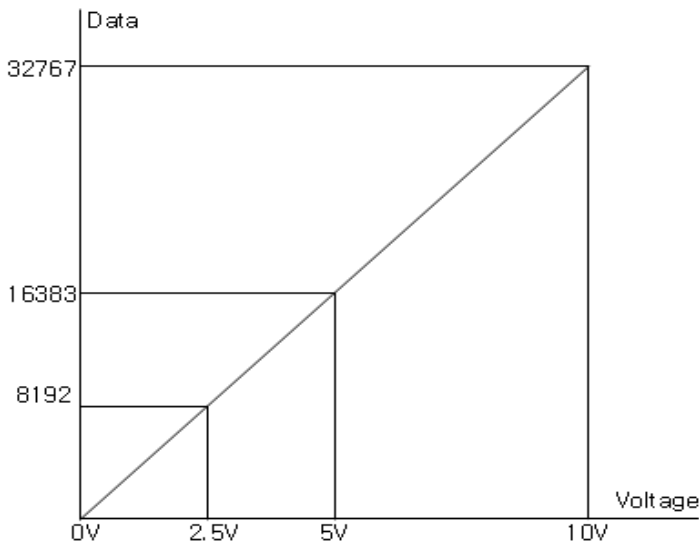
### 2.3.2. Channel Status LED

Status	LED	To indicate
Normal Operation	[LED Off < 0.5% (Maximum Input Value)] - Channel OFF [LED On > 0.5% (Maximum Input Value)] - Channel Green	Normal Operation
Field Power Error	All Channel Repeat the Green and OFF	Field Power is unconnected

### 2.3.3. Data value / Voltage

Voltage Range : 0~10Vdc

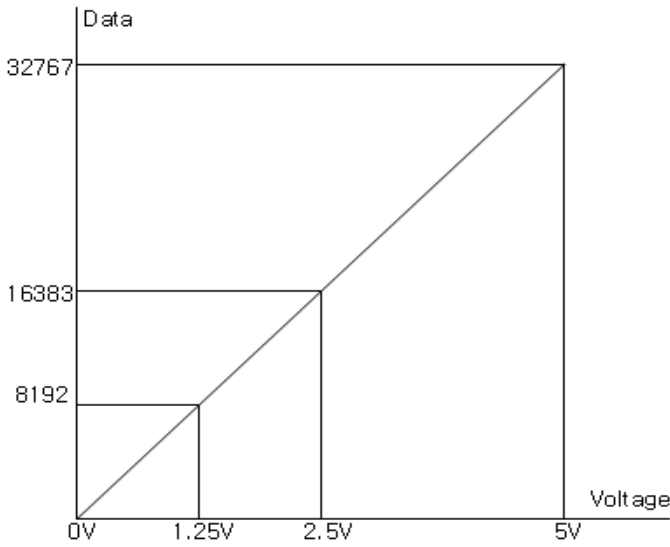
Voltage	0.0V	2.5V	5.0V	10.0V
Data(Hex)	H0000	H1FFF	H3FFF	H7FFF



# Specification

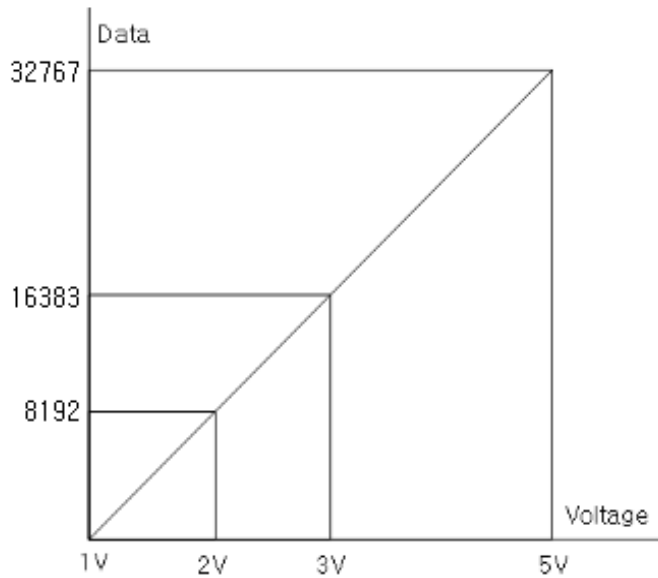
### Voltage Range : 0~5Vdc

Voltage	0.0V	1.25V	2.5V	5.0V
Data(Hex)	H0000	H1FFF	H3FFF	H7FFF



### Voltage Range : 1~5Vdc

Voltage	1.0V	2.0V	3.0V	5.0V
Data(Hex)	H0000	H1FFF	H3FFF	H7FFF

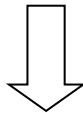




## 2.4. Mapping data into the image table

- **Input Module Data**

	Analog Input Ch0
	Analog Input Ch1
	Analog Input Ch2
	Analog Input Ch3



- **Input Image Value**

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

## 2.5. Parameter Data

- **Valid Parameter length: 6 Bytes**
- **Parameter Data**

Bit No	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
<b>Byte 0</b>	Voltage Range for Channel 0 (H00: 0~10Vdc, H01: 0~5Vdc, H02: 1~5Vdc)							
<b>Byte 1</b>	Voltage Range for Channel 1 (H00: 0~10Vdc, H01: 0~5Vdc, H02: 1~5Vdc))							
<b>Byte 2</b>	Voltage Range for Channel 2 (H00: 0~10Vdc, H01: 0~5Vdc, H02: 1~5Vdc)							
<b>Byte 3</b>	Voltage Range for Channel 3 (H00: 0~10Vdc, H01: 0~5Vdc, H02: 1~5Vdc)							
<b>Byte 4</b>	Filter Time ( H00: Default Filter(20) / H01: Fastest ~ / H3E: Slowest )							
<b>Byte 5</b>	Not used(=00)							