

FnIO G – Series :

M1278

M1278(8 Channels, Sink Input Terminal, 24Vdc, 6mA)

Date: 2023.06.02

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History

REV.	PAGES	REMARKS	DATE	Editor
-		Preliminary	2021/6/1	SY PARK

Specification

1. ENVIRONMENT SPECIFICATION

Environmental specification	
Operation Temperature	-25°C ~60°C
UL Temperature	-25°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	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	UL, ATEX, CE, UKCA

Specification

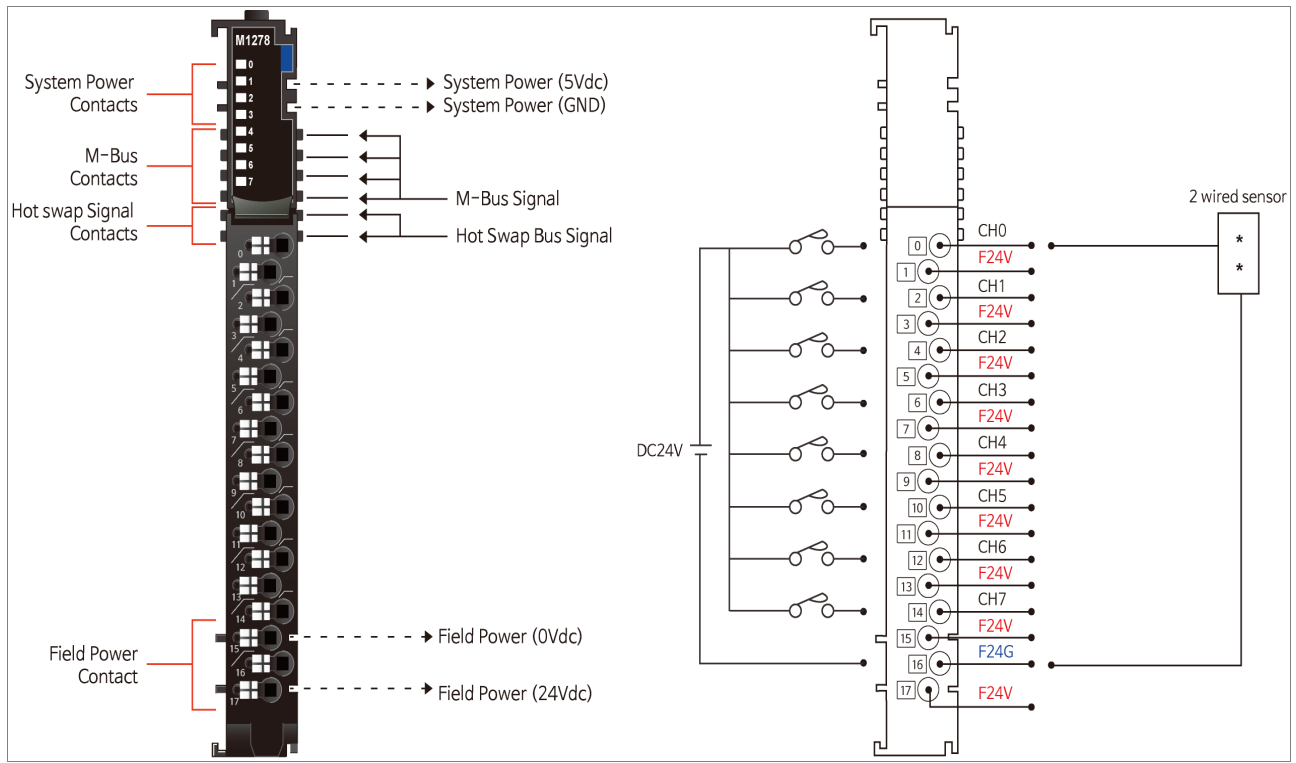
2. M1278 (8 Channels Sink Input Terminal)

2.1. M1278 Specification

Items	Specification
Input specification	
Inputs per module	8 points sink type
Sensor Connection	2-wire proximity sensor
Indicators	8 green input status
ON-state voltage	24Vdc nominal 18 ~ 28.8Vdc @ 60°C
ON-state current	About 6mA @ 18~28.8Vdc
OFF-state voltage	9Vdc @ 25°C
Input signal delay	OFF to ON : Max. 0.3ms ON to OFF : Max. 0.3ms
Input filter	Adjustable, up to 10ms
Common type	8 points / 1 COM(Sink)
General specification	
Power dissipation	Max. 30mA @ 5Vdc
Isolation	I/O to Logic : photocoupler isolation
UL field power	Supply voltage : 24Vdc nominal, Class 2
Field power	Supply voltage : Class2, 24Vdc nominal Voltage range : 18~28.8Vdc Power dissipation: 10mA @ 28.8Vdc
Single wiring	0.205mm ² - 1.3mm ² (24-16 AWG)
Torque	0.8Nm(7 lb-in)
Weight	72g
Module size	12mm x 110mm x 75mm
Hot Swap	Possible
Environment condition	Refer to '1. Environment specification'

* Class 2, adjacent to voltage rating (30Vmax)

2.2. M1278 Wiring Diagram



Pin No.	Signal Description
0	Input Channel 0
1	Field Power 24V
2	Input Channel 1
3	Field Power 24V
4	Input Channel 2
5	Field Power 24V
6	Input Channel 3
7	Field Power 24V
8	Input Channel 4
9	Field Power 24V
10	Input Channel 5
11	Field Power 24V
12	Input Channel 6
13	Field Power 24V
14	Input Channel 7
15	Field Power 24V
16	Common (Field Power 0V)
17	Field Power 24V

Series No	Through Air	Over Surface	CTI
RTB18C	1.5mm	1.5mm	175≤CTI≤400

Spacings : The following minimum spacing in inches (millimeters) shall be maintained between uninsulated live parts of opposite polarity; and between an uninsulated live part and a grounded Part including any mounting surface or exposed metal part.

2.3. M1278 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

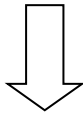
2.3.2. Channel Status LED

Status	LED	To indicate
Not Signal	Off	Normal Operation
On Signal	Green	Normal Operation

2.3.3. 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

2.4. 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							