
FnIO M – Series :

M1238

M1238 (8 Points, Universal Input Terminal, 24Vdc)

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History

Rev	Pages	Remarks	Date	Editor
1.00			2023/10/18	Soyeong, Park
1.01	5	Input specification changed	2024/09/26	CW SEO

Specification

1. ENVIRONMENT SPECIFICATION

Environmental specification	
Operating Temperature	-25℃~60℃
UL Temperature	-25℃~60℃
Storage Temperature	-40℃~85℃
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	EN 61000-6-4/A11 : 2011
Industrial Immunity	EN 61000-6-2 : 2019
Installation Position	Vertical and horizontal installation is available.
Product Certifications	UL, ATEX, CE, UKCA, ABS, BV, CCS, DNV, KR, LR

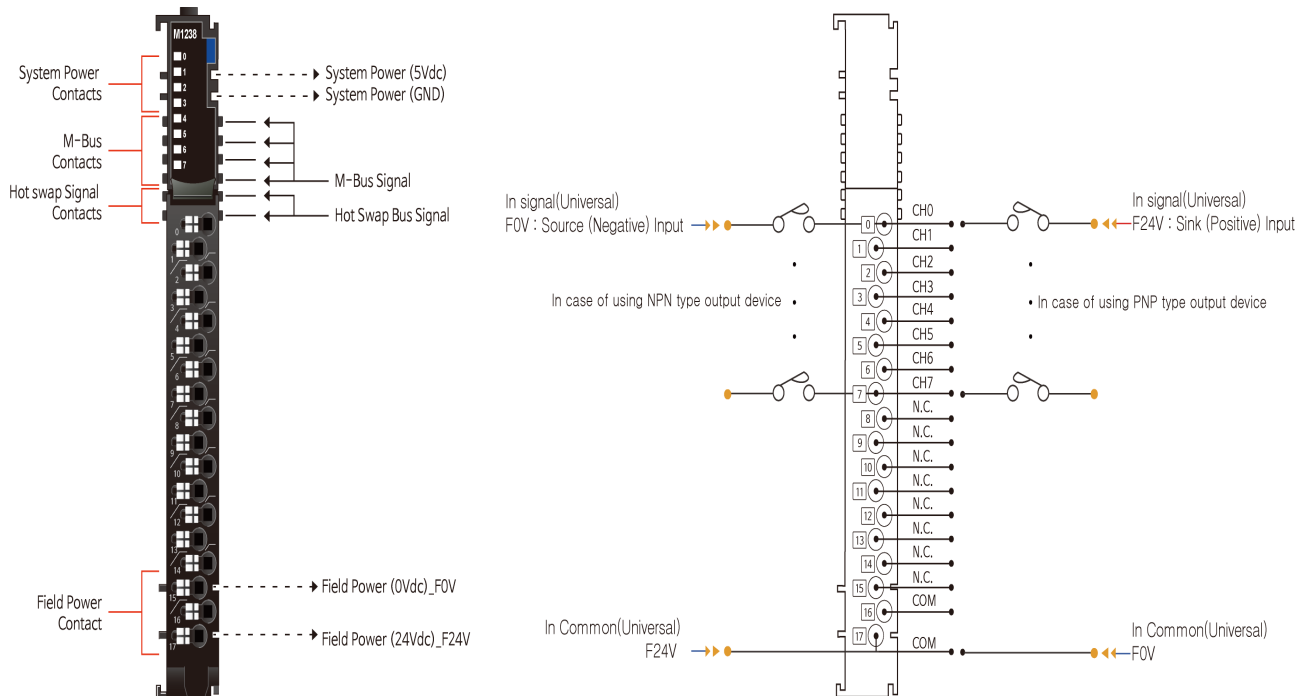
Specification

2. M1238 (8 Points, Universal Input Terminal)

2.1. M1238 Specification

Items	Specification
Input Specification	
Inputs per module	8 points Universal type
Indicators	8 Green input state
ON-state Voltage	24Vdc nominal, 15~28.8Vdc@25°C Max. 26.4Vdc@60°C
ON-state current	4mA @ 24Vdc 4.9mA @ 28.8Vdc
OFF-state voltage	11Vdc @ 25°C
Input signal delay	OFF to ON : Max. 0.5ms ON to OFF : Max. 0.5ms
Nominal input impedance	5.6Kohm typical
Common type	8 points / 2 COM (Universal Common)
General specification	
Power dissipation	Max. 30mA @ 5.0Vdc
Isolation	I/O to Logic : Photocoupler Isolation
UL Field Power	Supply voltage : 24Vdc nominal, Class 2
Field Power	Supply voltage : 24Vdc Norminal Voltage range : 15V ~ 28.8Vdc Power dissipation : 0mA @24Vdc
Single Wire	0.205mm - 1.3mm (24-16 AWG)
Torque	0.8Nm(7 lb-in)
Weight	69g
Module Size	12mm x 110mm x 75mm
Hot Swap	Possible
Environment Condition	Refer to '1. Environment Specification'

2.2. M1238 Wiring Diagram



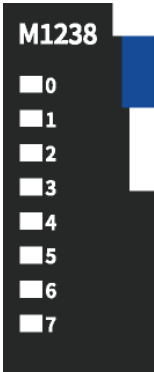
Pin No.	Signal Description	Series No	Through Air	Over Surface	CTI
0	Input Channel 0	RTB18C	1.5mm	1.5mm	175≤CTI≤400
1	Input Channel 1	Spacings : The following minimum spacing in inches(millimeters) shall be maintained between uninsulated live parts of opposite polarity; and between an uninsulated live part and a grounded Part including any mounting surface or exposed metal part.			
2	Input Channel 2				
3	Input Channel 3				
4	Input Channel 4				
5	Input Channel 5				
6	Input Channel 6				
7	Input Channel 7				
8	N.C.				
9	N.C.				
10	N.C.				
11	N.C.				
12	N.C.				
13	N.C.				
14	N.C.				
15	N.C.				
16	Common(Sink 0V / Source 24V)				
17	Common(Sink 0V / Source 24V)				

N.C : Not Connected

Specification

2.3. M1238 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

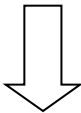
2.3.2. Channel Status LED

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

2.4. Mapping Data from 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

2.5. 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							