

FnIO M – Series :

M2788

M2788(8 Points, MOS Relay Terminal, 110Vdc/ac, 1A)

Table of Contents

Table of Contents.....	2
History.....	3
1.Environment Specification.....	4
2.M2788 (8 Points, Relay Output Terminal, 110Vdc/ac, 1A).....	5
2.1.M2788 Specification.....	5
2.2.M2788 Wiring Diagram.....	6
2.3.M2788 LED Indicator.....	7
2.3.1.LED Indicator.....	7
2.3.2.Channel Status LED.....	7
2.4.Mapping Data into the Image Table.....	8
2.5.Parameter Data.....	8

History

REV.	PAGES	REMARKS	DATE	Editor
Preliminary		Preliminary	Aug. 27, 2019	BS, HA
1.01		Image, UL Spec, Torque, Hotswap Function	2020/04/21	CW SEO
1.02		Vibration specification, Product certification changed	2020/04/27	CW SEO
1.03	10~14	Added Module mounting	2020/05/07	bs, HA
1.04		Remove Description pages of Hot Swap Function, Use in Hazardous Environments and Caution(Before using the unit)	2020/12/08	SJ LIM
1.05	4	Environment Specification Update	2021/11/16	EC KIM
1.06	4	Certificate Update	2023/06/05	CW SEO

1. Environment Specification

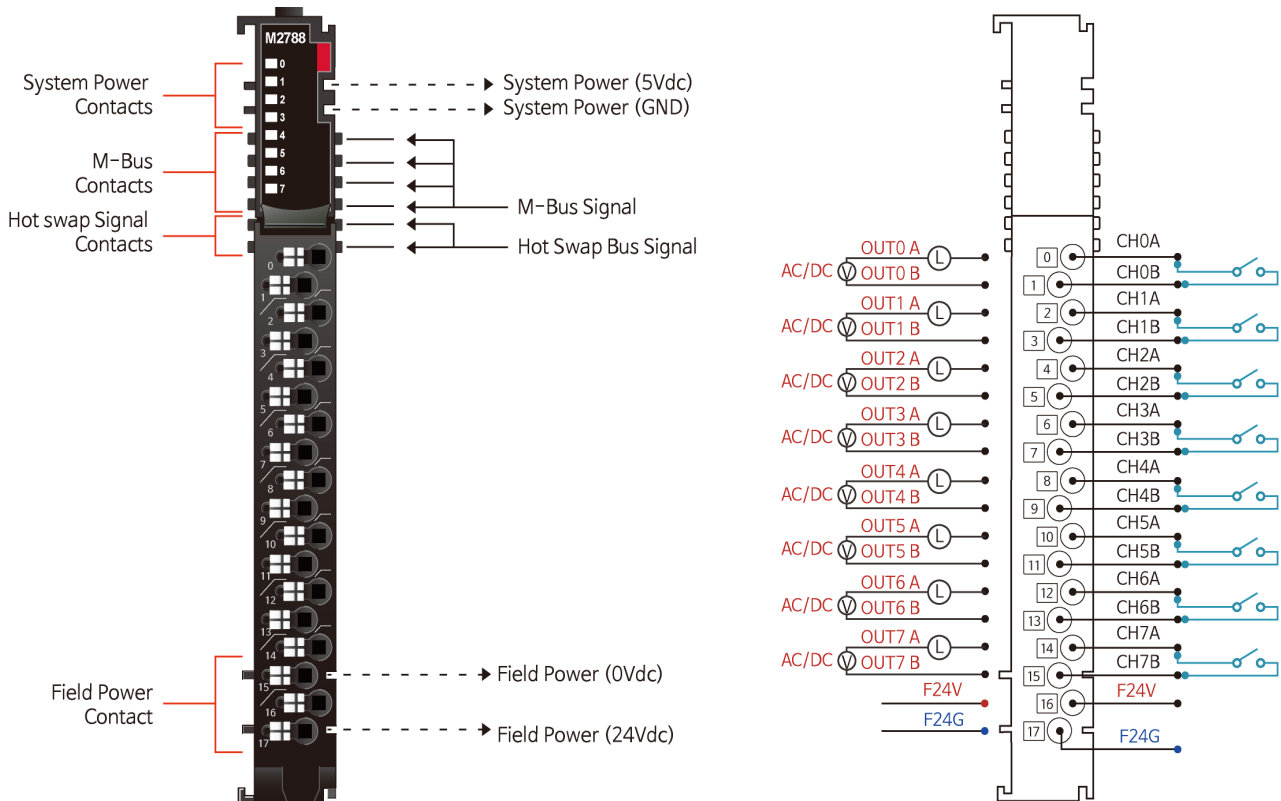
Environmental specification	
Operating Temperature	-25°C~60°C
UL Temperature	-25°C~60°C
Storage Temperature	-40°C~85°C
Relative Humidity	5% ~ 90% non-condensing
Mounting	DIN rail
General specification	
Shock Operating	IEC 60068-2-27
Vibration Resistance	IEC 60068-2-6, 4g
Industrial Emissions	EN 61000-6-4/A11 : 2011
Industrial Immunity	EN 61000-6-2 : 2019
Installation Position	Vertical and horizontal installation is available.
Protection type	IP20
Product Certifications	UL, CE, UKCA, LVD, ABS, BV, CCS, DNV, KR, LR

2. M2788 (8 Points, Relay Output Terminal, 110Vdc/ac, 1A)

2.1. M2788 Specification

Items	Specification
Output specification	
Output per module	8 Points, Bi-directional
Indicators (Logic side)	8 Green output state
Relay Type	MOS Relay (Solid State Relay)
Output Voltage Range (Load Dependent)	Max. 110Vac @ 1A resistive Max. 110Vdc @ 1A resistive
Output Current Rating	Max. 1A per channel Operating Temperature -25°C~60°C : 0.8A per channel -25°C~50°C : 1A per channel
Output Delay Time (resistive load) - Operate Time (OFF to ON) - Release Time (ON to OFF)	Max. 0.6 ms Max. 3 ms
Frequency range (Vac)	47 ~ 63Hz
General Specification	
Power dissipation	130mA maximum @ 5.0Vdc
Isolation	I/O to Logic : Photocoupler isolation
Field Power	Field Power passes through to the next module. (AC Power Not used)
Single Wire	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'

2.2. M2788 Wiring Diagram



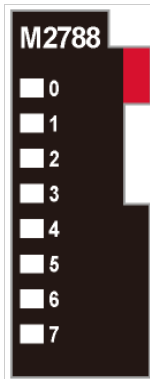
Pin No.	Signal Description
0	Output Channel 0 A
1	Output Channel 0 B
2	Output Channel 1 A
3	Output Channel 1 B
4	Output Channel 2 A
5	Output Channel 2 B
6	Output Channel 3 A
7	Output Channel 3 B
8	Output Channel 4 A
9	Output Channel 4 B
10	Output Channel 5 A
11	Output Channel 5 B
12	Output Channel 6 A
13	Output Channel 6 B
14	Output Channel 7 A
15	Output Channel 7 B
16	Field Power 24Vdc
17	Field Power 0Vdc

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. M2788 LED Indicator

2.3.1. LED Indicator



LED No.	LED Function / Description	LED Color
0	Output Channel Status 0	Green
1	Output Channel Status 1	Green
2	Output Channel Status 2	Green
3	Output Channel Status 3	Green
4	Output Channel Status 4	Green
5	Output Channel Status 5	Green
6	Output Channel Status 6	Green
7	Output Channel Status 7	Green

2.3.2. Channel Status LED

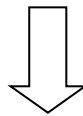
Status	LED	To indicate
Not Signal	Off	Normal Operation
On Signal	Green	Normal Operation

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

2.5. Parameter Data



- Output Module Data

D7	D6	D5	D4	D3	D2	D1	D0
----	----	----	----	----	----	----	----

- Valid Parameter length : 2 Bytes
- Parameter Data

Bit No	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Byte 0	Fault Action (ch0~ch7) 0: Fault value, 1:Hold last state							
Byte 1	Fault value (ch0~ch7) 0:Off, 1:On							