

FnIO M – Series :

M2744

M2744(4 Points, Relay Terminal, 24Vdc/2A, 240Vac/2A)

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History

REV.	PAGES	REMARKS	DATE	Editor
Preliminary		Preliminary	Oct. 14, 2019	BS, HA
1.02		Vibration specification, Product certification changed	20/04/27	CW SEO
1.03	10~14	Added Module mounting	20/05/07	BS HA
1.04		Remove Description pages of Hot Swap Function, Use in Hazardous Envrnments and Caution(Before using the unit)	20/12/08	SJ LIM
1.05	5	Power dissipation changed	21/04/13	BS HA

1. Environment Specification

Environmental specification	
Operating Temperature	-25°C~60°C
UL Temperature	-20°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	Based on IEC 60068-2-6 DNVGL-CG-0039 : Vibration Class B, 4g
Industrial Emissions	EN 61000-6-4/A11 : 2011
Industrial Immunity	EN 61000-6-2 : 2005
Installation Position	Vertical and horizontal installation is available.
Protection type	IP20
Product Certifications	CE, UL, FCC

2. M2744 (4 Points, Relay Output Terminal, 24Vdc/2A, 240Vac/2A)

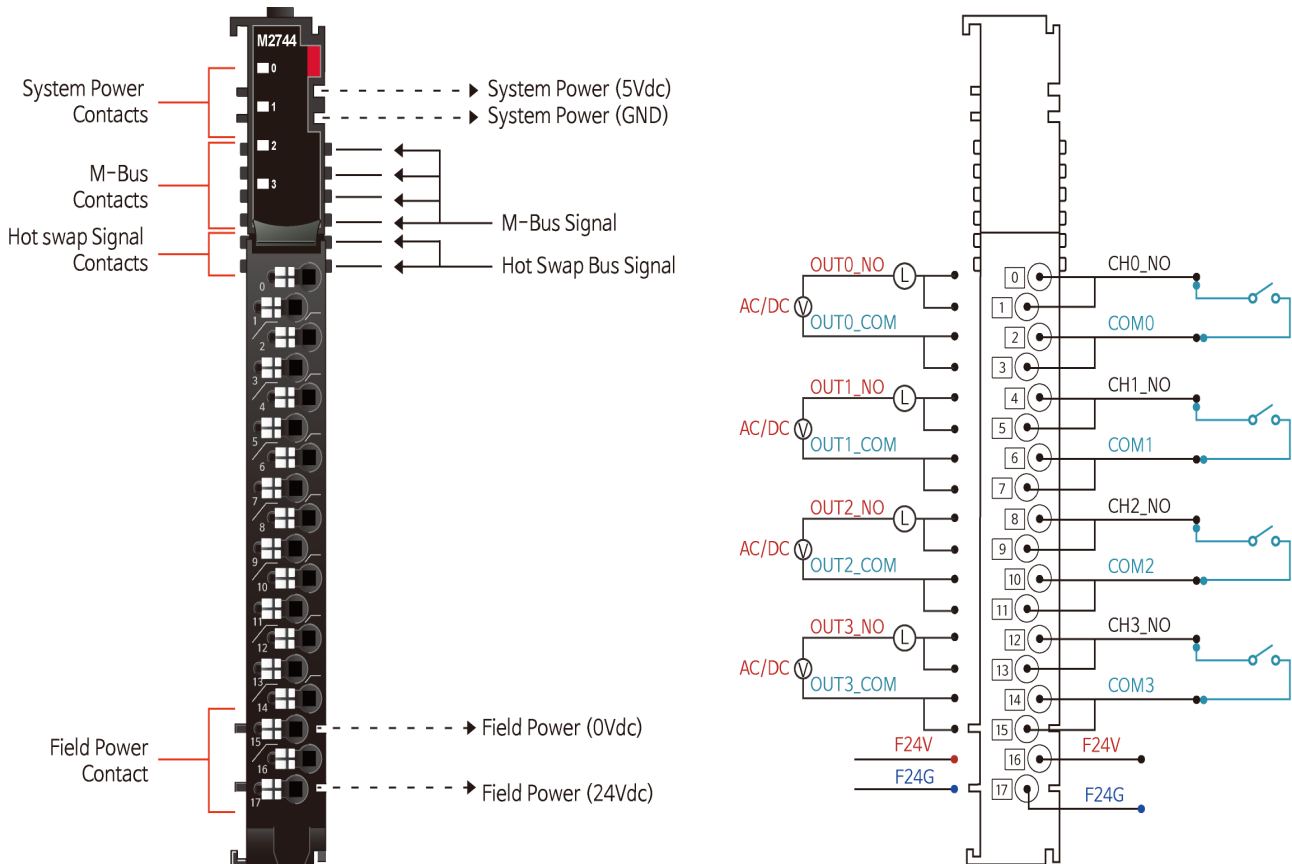
2.1. M2744 Specification

Items	Specification
Output Specification	
Output per module	4 Points, Bi-directional
Indicators (Logic side)	4 Green output state
Relay Type	Form A, Single Pole Single Throw (SPST)
Output Voltage Range	Max. 24Vdc @ 2.0A resistive Max. 240Vac @ 2.0A resistive
Output Current Rating	Max. 2.0A per channels
Output Delay Time (resistive load) - Operate Time (OFF to ON)	Max. 7ms @ 24Vdc Max. 7ms @ 240Vac
- Release Time (ON to OFF)	Max. 7ms @ 24Vdc Max. 14ms @ 240Vac
Expected Contact Life	Min. 20M Cycles (Resistive)
Frequency Range (Vac)	47Hz ~ 63Hz
Max. On-State Voltage Drop*	0.5V @ 2.0A, Resistive Load, 24Vdc
Commons Type	1 Commons per 1 points (Total 4 Commons)
General specification	
Power dissipation	30mA maximum @ 5.0Vdc
Isolation	I/O to Logic : Photocoupler isolation
UL Field Power	Supply voltage : 24Vdc nominal, Class 2
Field Power	Supply voltage : 24Vdc Nominal (AC Power Not used) Voltage range : 22V ~ 26Vdc Power dissipation: 20mA maximum @ 24Vdc
Single Wire	0.205mm ² - 1.3mm ² (24-16 AWG)
Torque	0.8Nm(7 lb-in)
Weight	77g
Module Size	12mm x 110mm x 75mm
Hot Swap	Possible
Environment Condition	Refer to '1. Environment Specification'

* Voltage Drop specification is dependent on the cable length due to the high Load.

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

2.2. M2744 Wiring Diagram



Pin No.	Signal Description
0	Output Channel 0 NO
1	Output Channel 0 NO
2	Output Channel 0 COM0
3	Output Channel 0 COM0
4	Output Channel 1 NO
5	Output Channel 1 NO
6	Output Channel 1 COM1
7	Output Channel 1 COM1
8	Output Channel 2 NO
9	Output Channel 2 NO
10	Output Channel 2 COM2
11	Output Channel 2 COM2
12	Output Channel 3 NO
13	Output Channel 3 NO
14	Output Channel 3 COM3
15	Output Channel 3 COM3
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. M2744 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

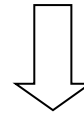
2.3.2. Channel Status LED

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	Reserved				D3	D2	D1	D0



- Output Module Data

D3	D2	D1	D0
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2.5. Parameter Data

- 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	Reserved				Fault Action (ch0~ch3) 0: Fault value, 1:Hold last state			
Byte 1	Reserved				Fault value (ch0~ch3) 0:Off, 1:On			