

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
1.06	4	Environment Specification Update	21/11/16	EC KIM
1.07	4	Certificate Update	23/06/05	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. M2744 (4 Points, Relay Output Terminal, 24Vdc/2A, 240Vac/2A)

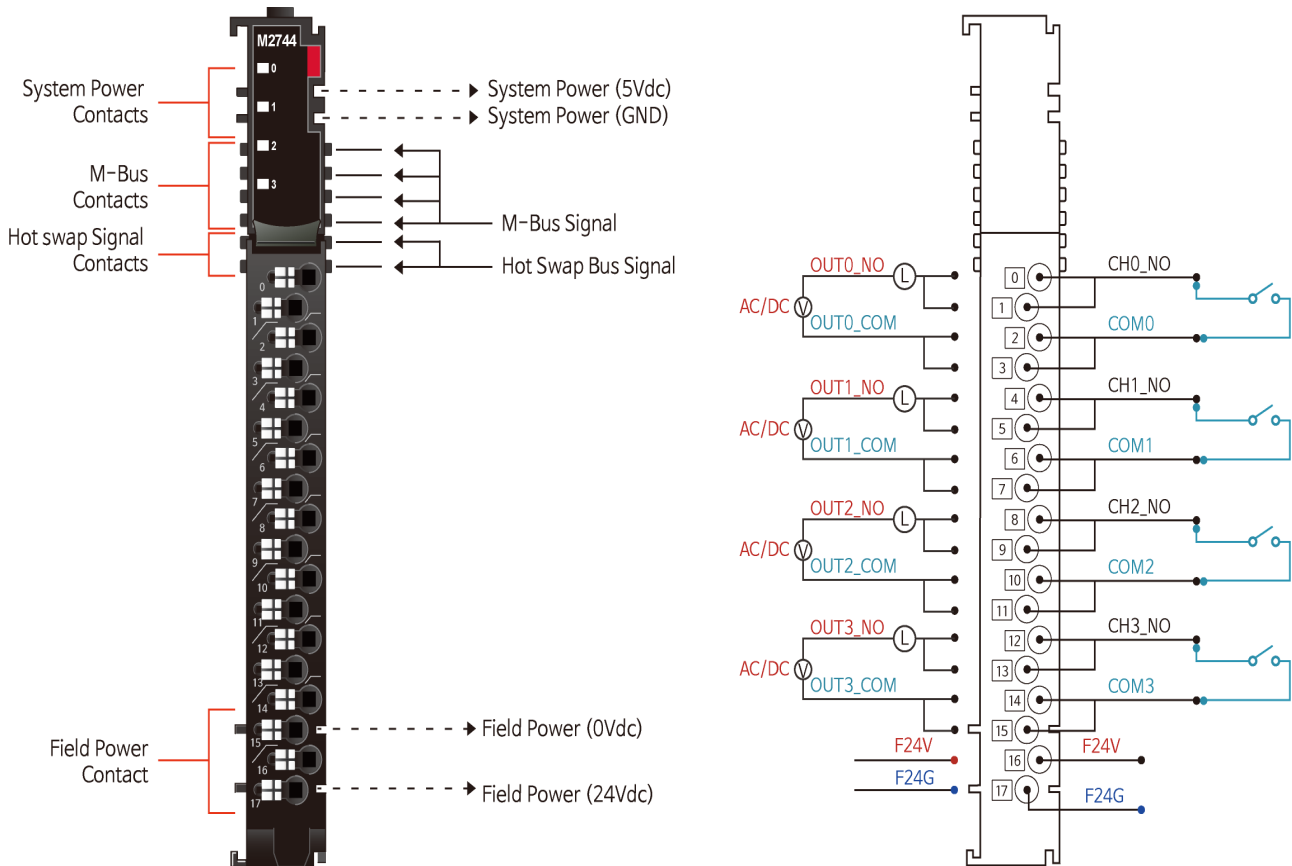
2.1. M2744 Specification

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



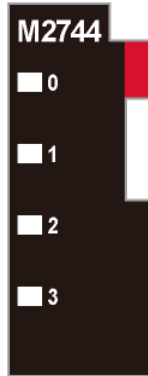
Pin No.	Signal Description
0	Output Channel 0 NO
1	Output Channel 0 NO
2	Output Channel 0 COM0
3	Output Channel 0 COM0
4	Output Channel 1 NO
5	Output Channel 1 NO
6	Output Channel 1 COM1
7	Output Channel 1 COM1
8	Output Channel 2 NO
9	Output Channel 2 NO
10	Output Channel 2 COM2
11	Output Channel 2 COM2
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

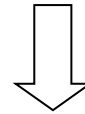
2.3.2. Channel Status LED

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			