

EMD-7216

Ethernet Digital I/O module

User's Manual (V1.0)

健昇科技股份有限公司

JS AUTOMATION CORP.

台北縣汐止市中興路 100 號 6 樓

6F,No.100,Chungshin Rd.

Shitsu, Taipei, Taiwan, R.O.C.

TEL : 886-2-2647-6936

FAX : 886-2-2647-6940

<http://www.automation.com.tw>

E-mail : control.cards@automation.com.tw

Correction record

Version	Record
1.0	firmware version 1.0 up

Contents

1.	Forward.....	4
2.	Features.....	5
3.	Specifications.....	6
3.1	Digital input	6
3.2	Digital output	6
3.3	Ethernet	6
3.4	General	6
4.	Layout and dimensions	7
4.1	EMD7216.....	7
5.	Pin definitions	8
5.1	JM2 pin definitions	8
5.2	JM3 pin definitions	8
5.3	JM4 pin definitions	8
5.4	JM5 pin definitions	8
6.	I/O Interface diagram.....	9
6.1	I/O diagram	9
7.	Applications	10
8.	Ordering information	11

Notes on hardware installation

Please register as user's club member to download the
“Step_by_step_installation_of_Ethernet_module” document from <http://automation.com.tw>

1. **Forward**

Thank you for your selection of Ethernet module 7216 digital input output interface.

Thanks to the booming of network, Ethernet become a reliable and low cost solution for data communication. To utilize the Ethernet as data communication highway of industrial control devices is more attractive than ever. EMD72xx module is a simple web based digital I/O control module. We also provide the dll's of Window's or Linux system, enabling you coding the flexible application as you need. Stable, high reliability and remote addressable module give you a new approach of application.

In the same series:

EMD7201-4 4 TTL input and 4 relay output Ethernet DIO module

EMD7201-8 8 TTL input and 8 relay output Ethernet DIO module

EMD7201-T 8 TTL input and 8 TTL output Ethernet DIO module

Any comment is welcome,

please visit our website

[http:// www.automation.com.tw](http://www.automation.com.tw) for the up to date information.

2. Features

- Over-voltage protection on digital input
- High drive capacity on digital output
- Various IO combinations
 - 16 bit configurable I/O's, any bit can be input or output
- IP re-assignment
- Wide power range

3. Specifications

3.1 Digital input

- 3.1.1 Input points: max 16
- 3.1.2 Logic high level: 3.15V(min)
- 3.1.3 Logic low level: 1.35V(max)
- 3.1.4 Over-voltage protection: 60Vdc(max)
- 3.1.5 Over-current protection: 50mA(max)

3.2 Digital output

- 3.2.1 Transistor output: max 16
- 3.2.2 Transistor capacity: 500mA(peak), 45Vdc(max)

3.3 Ethernet

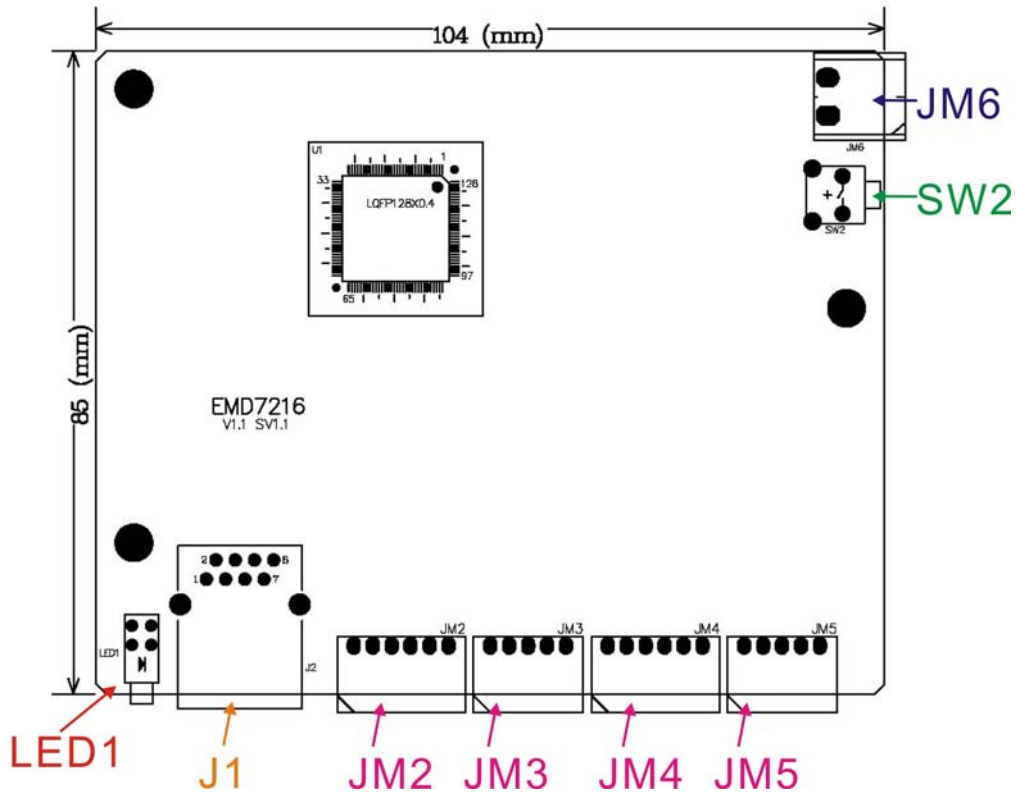
- 3.3.1 10/100M auto switch

3.4 General

- 3.4.1 Power requirement: 12Vdc ~24Vdc
- 3.4.2 Operation Temperature: 0 ~ +70 degree C
- 3.4.3 Storage Temperature: -20 ~ +80 degree C
- 3.4.4 Operation Humidity: 5~95% RH, non-condensing
- 3.4.5 Dimension: 89(D)*110(W)*34(H) mm
3.5(D)*4.33(W)*1.39(H) in

4. Layout and dimensions

4.1 EMD7216



LED1: system active LED

J1: Ethernet RJ45 socket

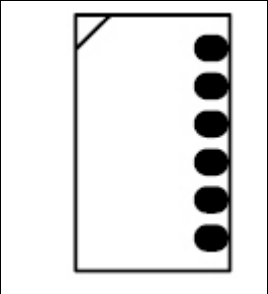
JM2, JM3, JM4, JM5: I/O connector

JM6: external power 24V connector

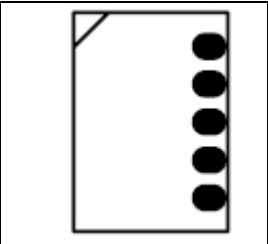
SW2: system reset switch

5. Pin definitions

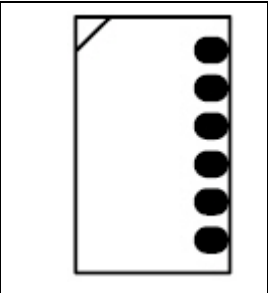
5.1 JM2 pin definitions

+Ve0*	1	
IO_00	2	
IO_01	3	
IO_02	4	
IO_03	5	
GND	6	

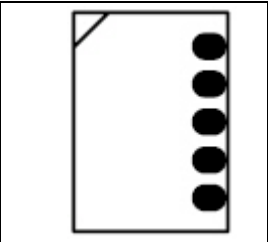
5.2 JM3 pin definitions

IO_04	1	
IO_05	2	
IO_06	3	
IO_07	4	
GND	5	

5.3 JM4 pin definitions

+Ve1*	1	
IO_10	2	
IO_11	3	
IO_12	4	
IO_13	5	
GND	6	

5.4 JM5 pin definitions

IO_14	1	
IO_15	2	
IO_16	3	
IO_17	4	
GND	5	

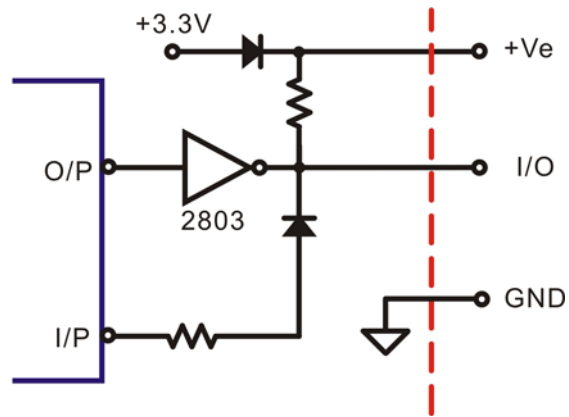
* +Ve0 and +Ve1 can floating or voltage input (voltage range +3.3V ~ +24V)

* +Ve0 is used for IO_00~IO_07, +Ve1 is used for IO_10~IO_17.

* +Ve0 and +Ve1 can apply different voltage as you need.

6. I/O Interface diagram

6.1 I/O diagram



Note: If +Ve0 is externally applied +24V then the IO_00 ~ IO07 will be also applied.
Same to +Ve1 for IO_10~IO_17

7. Applications

- For remote contact sensing
 - window or door open/close signal sensing
 - alarm signal sensing
 - fire detector signal sensing
- For remote contact make or break control
 - window or door open close control
 - light control
 - power on/off control

8. **Ordering information**

PRODUCT	DESCRIPTIONS
EMD7216	Ethernet module, 16 I/O
JD52000	110/220Vac to 24Vdc @1.5A power supply
JS52026	110/220Vac to 24Vdc @0.75A power adapter