EMD-8204/08
Ethernet Digital I/O module

User's Manual (V1.0)

健昇科技股份有限公司

JS AUTOMATION CORP.

新北市汐止區中興路 100 號 6 樓

6F., No.100, Zhongxing Rd.,

Xizhi Dist., New Taipei City, Taiwan

TEL：+886-2-2647-6936

FAX：+886-2-2647-6940

http://www.automation.com.tw

http://www.automation-js.com/

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

Correction record

Version	Record
1.0	firmware version 1.0 up

Contents

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 8204/08 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. EMD8204/08 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:
  EMD-8216   16 I/O Ethernet DIO module

Any comment is welcome,
please visit our website
http://www.automation.com.tw/
http://www.automation-js.com/   for the up to date information.

2. Features

- Over-voltage and over-current protection on digital input

- Various IO combinations

  4 photo isolated input and 4 relay output (EMD-8204)

  8 photo isolated input and 8 relay output (EMD-8208)

- Digital I/P as counter input

- Direct web page control

- IP re-assignment

- 10/100M auto detection

- Software key function

3. Specifications

3.1 Digital input

    3.1.1   Photo isolated input : 4 (EMD-8204)

                                            8 (EMD-8208)

    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)

    3.1.6   Counter input : any digital input

    3.1.7   Counter speed : 200Hz (max) square wave

3.2 Digital output

    3.2.1   Relay output points: 4 (EMD-8204)

                                            8 (EMD-8208)

    3.2.2   Relay capacity: 3A@250Vac, 3A @30Vdc

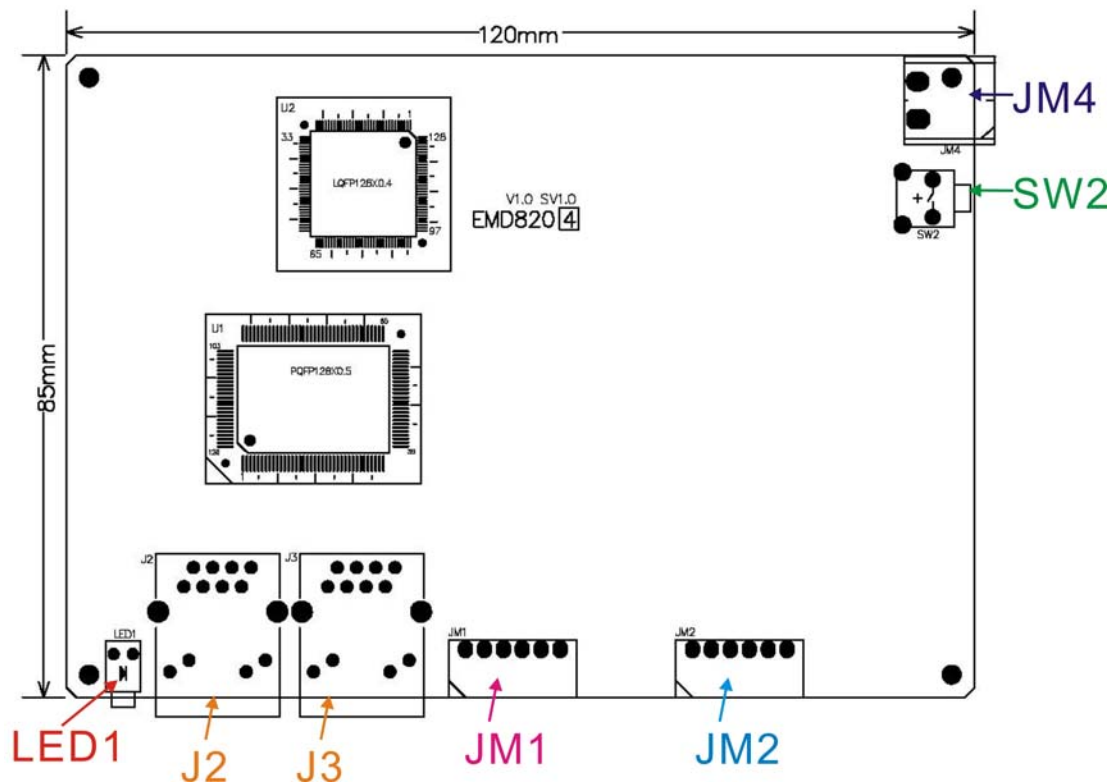   3.2.3   Transistor capacity: 500mA(peak), 45Vdc(max)

3.3 Ethernet

    3.3.1   10/100M auto switch x 2 port

3.4 General

    3.4.1   Power requirement: 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: 107.6(D)*135.8(W)*34(H) mm

                                     4.3(D)*5.4(W)*1.4(H) in

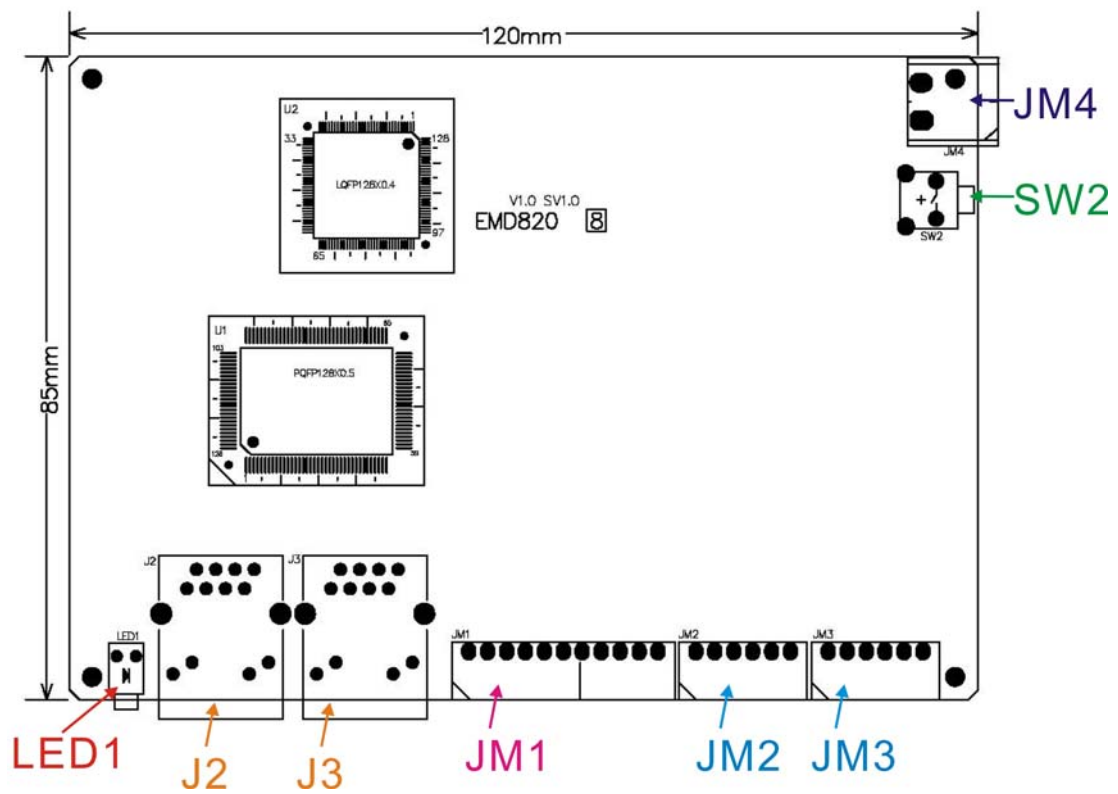# 4. Layout and dimensions

4.1 EMD-8204

LED1: system active LED

J2,J3: Ethernet RJ45 socket

JM1, JM2   I/O connector

JM4: external power 24V connector

SW2: system reset switch

4.2 EMD-8208
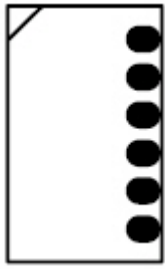

LED1: system active LED

J2,J3: Ethernet RJ45 socket

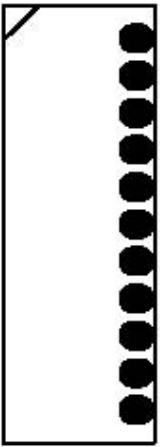JM1, JM2, JM3 I/O connector

JM4: external power 24V connector
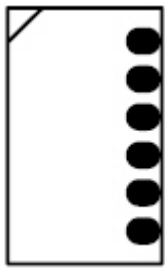
SW2: system reset switch

5. Pin definitions

5.1 JM1 pin definitions (EMD-8204)

+Ve*	1
IN 0	2
IN 1	3
IN 2	4
IN 3	5
EXTG	6
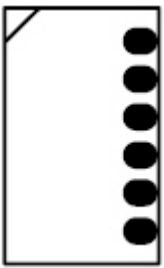
5.2 JM1 pin definitions (EMD-8208)

+Ve*	1
IN 0	2
IN 1	3
IN 2	4
IN 3	5
EXTG	6
IN 4	7
IN 5	8
IN 6	9
IN 7	10
EXTG	11

5.3 JM2 pin definitions

OUT 0	1
OUT 1	2
COM 0	3
OUT 2	4
OUT 3	5
COM 1	6

5.4 JM3 pin definitions(EMD-8208 Only)

OUT 4	1
OUT 5	2
COM 2	3
OUT 6	4
OUT 7	5
COM 3	6

* +Ve (+24V)

9

6. I/O Interface diagram

6.1 Input diagram

I/P WIRING   Input interface

6.2 Output diagram

RELAY output
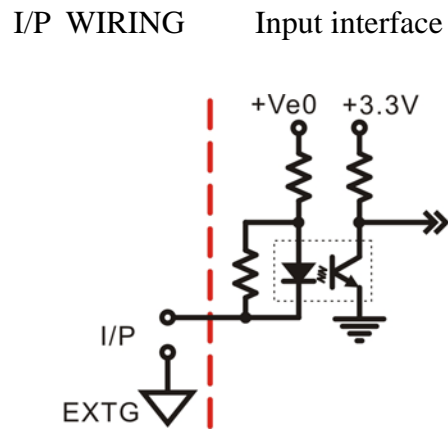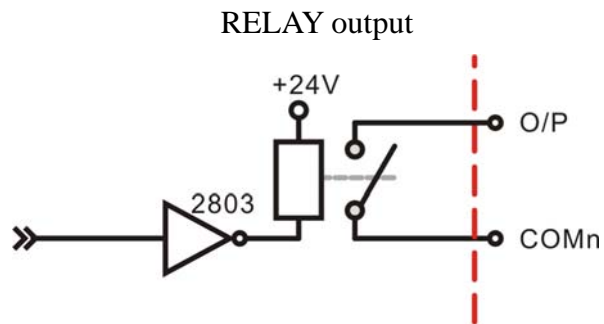
7. <u>**Applications**</u>

- For remote contact sensing
    - -- window or door open/close signal sensing
    - -- alram 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
EMD-8204	Ethernet module, 4 photo isolated input and 4 relay output
EMD-8208	Ethernet module, 8 photo isolated input and 8 relay output
JD52000	110/220Vac to 24Vdc @1.5A power supply
JS52026	110/220Vac to 24Vdc @0.75A power adapter