

BEFORE USE

Thank you for choosing M-System. Before use, please check contents of the package you received as outlined below.

If you have any problems or questions with the product, please contact M-System's Sales Office or representatives.

■ PACKAGE INCLUDES:

- Discrete I/O module..... (1)
- Mounter slider..... (2)

■ MODEL NO.

Confirm that the model number described on the product is exactly what you ordered.

■ INSTRUCTION MANUAL

This manual describes necessary points of caution when you use this product, including installation, connection and basic maintenance procedures.

POINTS OF CAUTION**■ CONFORMITY WITH EC DIRECTIVES**

- The actual installation environments such as panel configurations, connected devices and connected wires may affect the protection level of this unit when it is integrated in a panel system. The user may have to review the CE requirements in regard to the whole system and employ additional protective measures to ensure CE conformity.

■ GENERAL PRECAUTIONS

- Before you remove the unit or mount it, turn off the power supply and input signal for safety.

■ ENVIRONMENT

- Indoor use
- When heavy dust or metal particles are present in the air, install the unit inside proper housing with sufficient ventilation.
- Do not install the unit where it is subjected to continuous vibration. Do not subject the unit to physical impact.
- Environmental temperature must be within 0 to 55°C (32 to 131°F) with relative humidity within 30 to 90% RH in order to ensure adequate life span and operation.

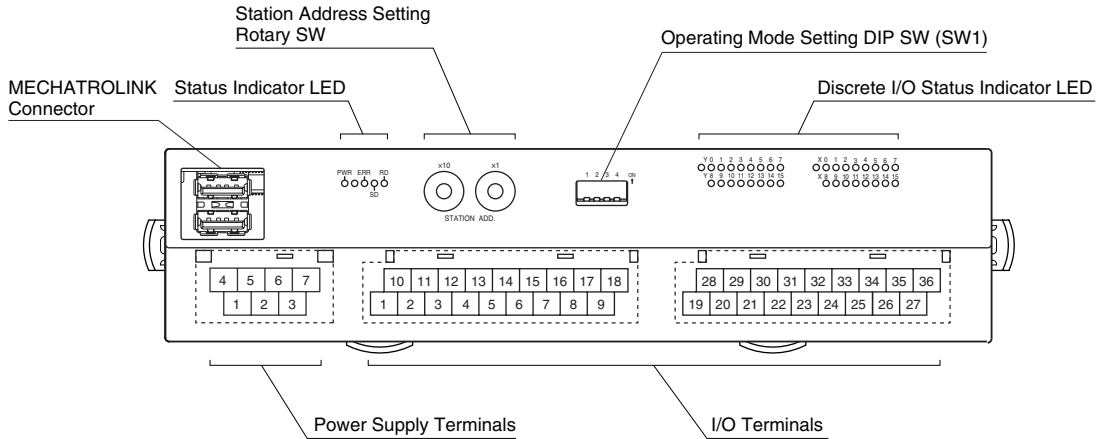
■ WIRING

- Do not install cables (power supply, input and output) close to noise sources (relay drive cable, high frequency line, etc.).
- Do not bind these cables together with those in which noises are present. Do not install them in the same duct.

■ AND

- The unit is designed to function as soon as power is supplied, however, a warm up for 10 minutes is required for satisfying complete performance described in the data sheet.

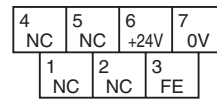
FRONT VIEW



■ STATUS INDICATOR LED

ID	COLOR	FUNCTION
PWR	Green	Turns on when the internal power is supplied normally.
ERR	Red	Turns on in station address setting error.
SD	Green	Turns on when the module is transmitting.
RD	Green	Turns on when the module is receiving.

■ POWER SUPPLY TERMINAL ASSIGNMENT



- 1. NC -
- 2. NC -
- 3. FE FE
- 4. NC -
- 5. NC -
- 6. +24V Power supply (24V DC)
- 7. 0V Power supply (0V)

■ STATION ADDRESS

Station Address is selected between 60H and 7FH in hexadecimal. (Because of simple I/O certain numbers may not be selectable depending on the master types. Refer to the instruction manual of the master unit.)

The left switch determines the MSD, while the right switch does the LSD of the address.

(Factory setting: 61H)



Station Address Setting (LSD)

Station Address Setting (MSD)

■ MECHATROLINK MODE

Choose MECHATROLINK-I or -II, and the data size. SW1-1 and SW1-2 are used.

SW1-1	SW1-2	MECHATROLINK
OFF	OFF	MECHATROLINK-II (32 byte mode) (*)
ON	OFF	MECHATROLINK-II (17 byte mode)
OFF	ON	Unused
ON	ON	MECHATROLINK-I (17 byte mode)

(*) Factory setting

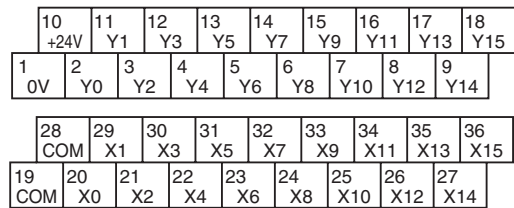
Caution ! - SW1-3 and SW1-4 are unused. Be sure to turn off unused channels.

■ DISCRETE I/O STATUS INDICATOR LED

LED green indicators showing I/O signal status.

- ON: LED ON
- OFF: LED OFF

■ I/O TERMINAL ASSIGNMENT



NO.	ID	FUNCTION	NO.	ID	FUNCTION
1	0V	0V (Out Common)	10	+24V	24V DC
2	Y0	Output 0	11	Y1	Output 1
3	Y2	Output 2	12	Y3	Output 3
4	Y4	Output 4	13	Y5	Output 5
5	Y6	Output 6	14	Y7	Output 7
6	Y8	Output 8	15	Y9	Output 9
7	Y10	Output 10	16	Y11	Output 11
8	Y12	Output 12	17	Y13	Output 13
9	Y14	Output 14	18	Y15	Output 15

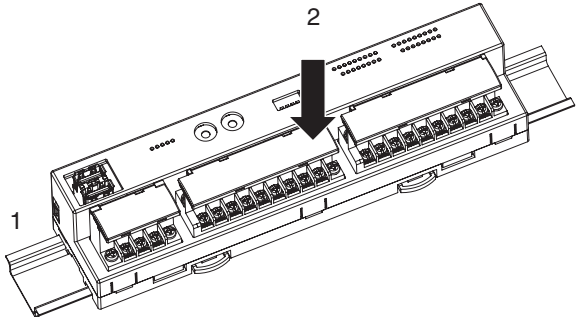
NO.	ID	FUNCTION	NO.	ID	FUNCTION
19	COM	Common	28	COM	Common
20	X16	Input 16	29	X17	Input 17
21	X18	Input 18	30	X19	Input 19
22	X20	Input 20	31	X21	Input 21
23	X22	Input 22	32	X23	Input 23
24	X24	Input 24	33	X25	Input 25
25	X26	Input 26	34	X27	Input 27
26	X28	Input 28	35	X29	Input 29
27	X30	Input 30	36	X31	Input 31

MOUNTING INSTRUCTIONS

■ DIN RAIL MOUNTING

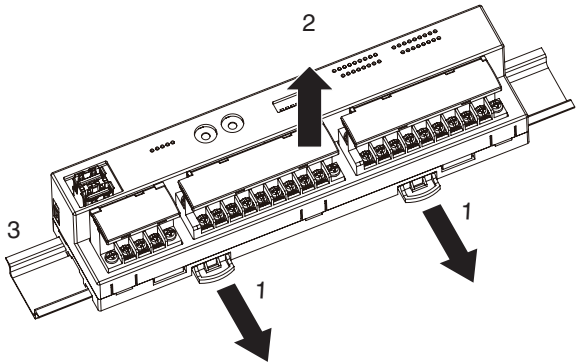
• Mounting

- 1) Set the upper hook at the rear side of the unit on the DIN rail.
- 2) Push in the lower.



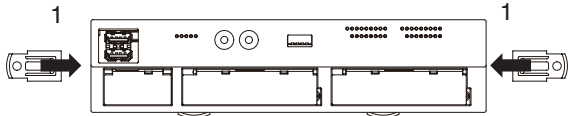
• Dismounting

- 1) Push down the DIN rail mounter slider with tip of a minus screwdriver.
- 2) Pull the lower of the unit.
- 3) Remove the upper hook of the unit from the DIN rail.

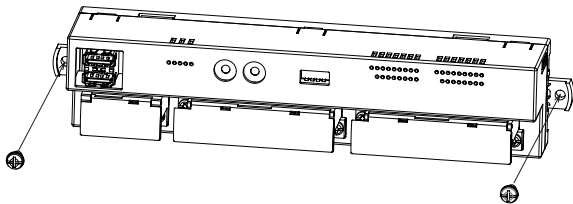


■ SURFACE MOUNTING

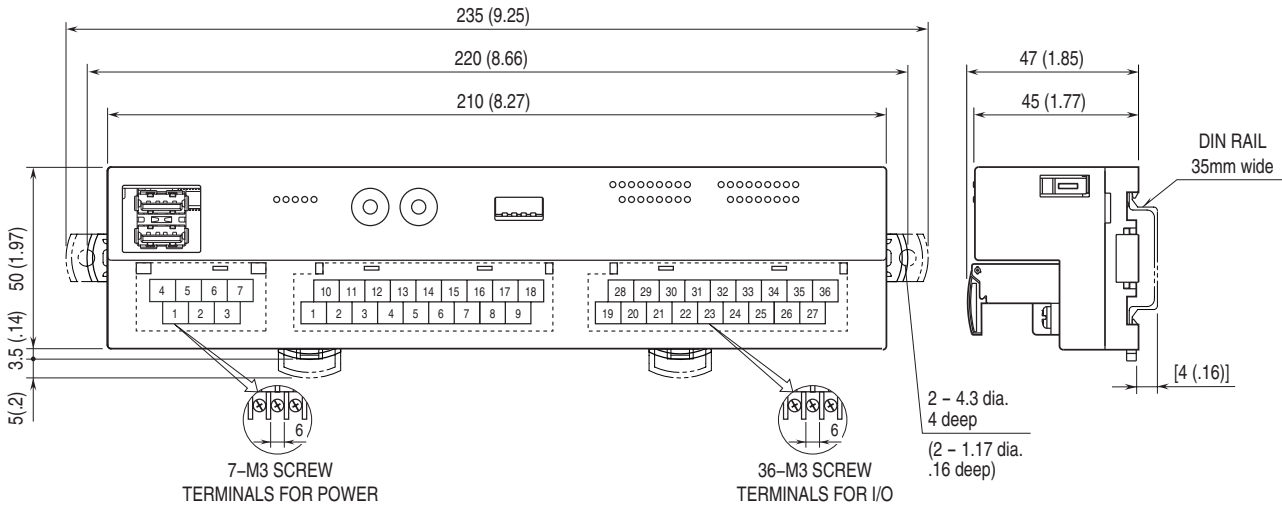
- 1) Insert the two DIN rail mounter sliders until it clicks once, as shown below.



- 2) Mount the unit with M4 screws referring the Mounting Requirements.

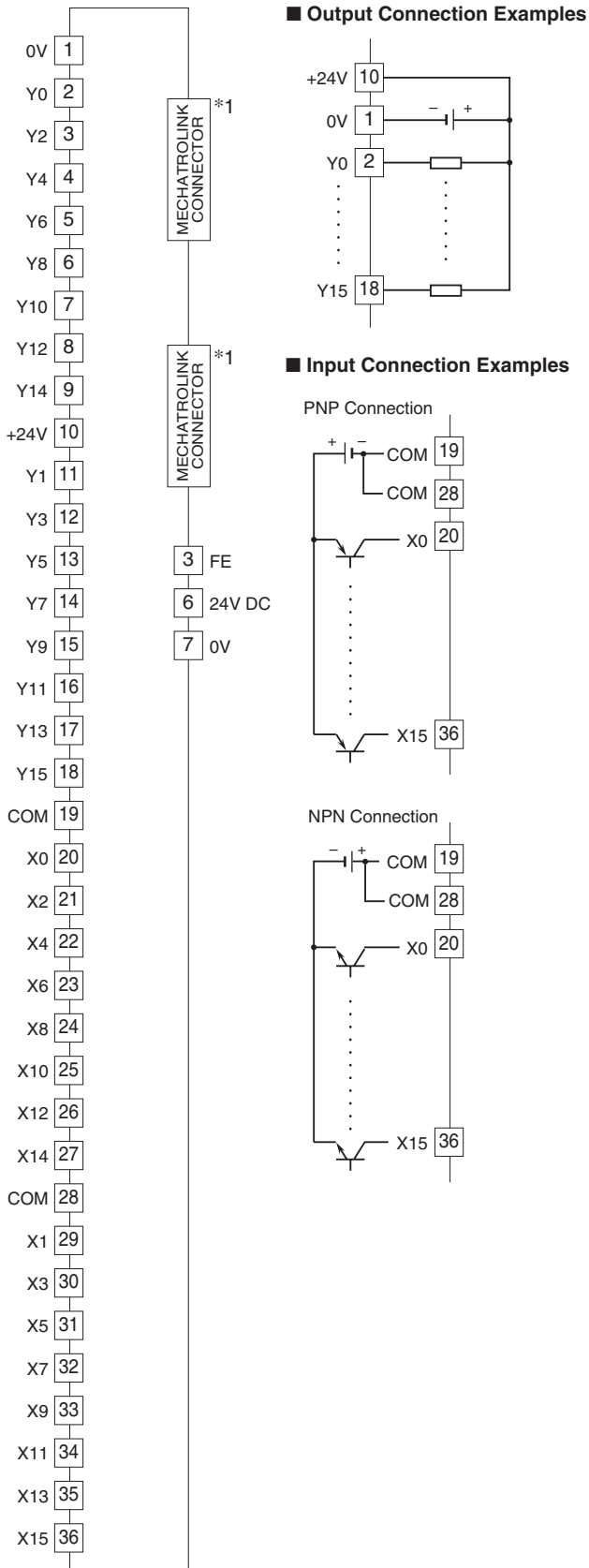


EXTERNAL DIMENSIONS unit: mm (inch)



CONNECTION DIAGRAM

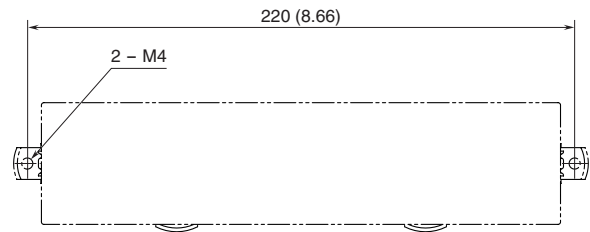
Connect the unit as in the diagram below.



*MECHATROLINK connectors are internally connected. The network cable can be connected to either one.

Note: In order to improve EMC performance, bond the FE terminal to ground.
Caution: FE terminal is NOT a protective conductor terminal.

MOUNTING REQUIREMENTS unit: mm (inch)



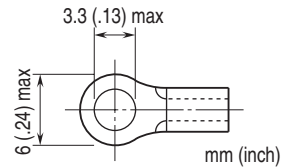
WIRING INSTRUCTIONS

■ SOLDERLESS TERMINAL mm (inch)

Refer to the drawing below for recommended ring tongue terminal size. Spade tongue type is also applicable. Solderless terminal:

Applicable wire size: 0.25 to 1.65 mm² (AWG 22 to 16)

Recommended manufacturer: Japan Solderless Terminal MFG.Co.Ltd, Nichifu Co.,Ltd



■ TORQUE

0.5 N·m