

**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 extension unit.....(1)  
Upper mounting adaptor.....(2)

**■ MODEL NO.**

Confirm Model No. marking on the product to be 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.

For detailed information of operation and configuration, refer to the Instruction Manual of Multi Power Monitoring Unit (model: R9xWTU).

**POINTS OF CAUTION****■ POWER CONSUMPTION**

AC: < 2VA

DC: < 1.5W

**■ GENERAL PRECAUTIONS**

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

**■ ENVIRONMENT**

- Indoor use.
- Do not install the unit where it is directly exposed to rain, water droplets or sunlight.
- 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 -10 to +55°C (14 to 131°F) with relative humidity within 30 to 90% RH in order to ensure adequate life span and operation.

**■ WIRING**

- Wiring to the unit must be conducted by qualified service personnel.
- Do not install cables 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.

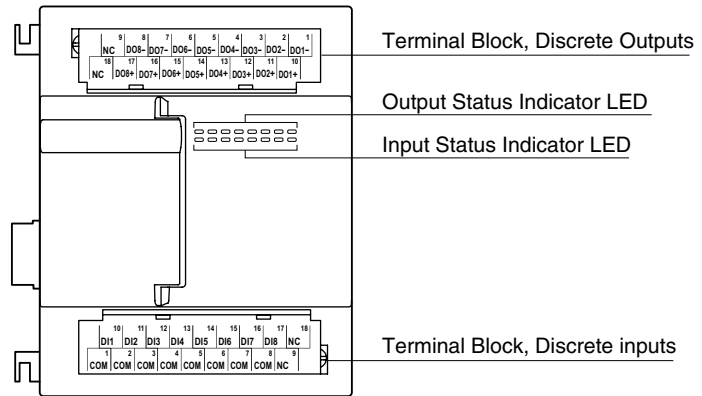
## COMPONENT IDENTIFICATION

### ■ I/O STATUS INDICATOR LED

Discrete I/O extension units have LED indicators showing I/O signal status.

Contact ON : LED ON

Contact OFF : LED OFF



## TERMINAL ASSIGNMENTS

### ■ DISCRETE INPUT

10	11	12	13	14	15	16	17	18
DI1	DI2	DI3	DI4	DI5	DI6	DI7	DI8	NC
1	2	3	4	5	6	7	8	9
COM	COM	COM	COM	COM	COM	COM	COM	NC

No.	ID	FUNCTION	No.	ID	FUNCTION
1	COM	Input comon	10	DI1	Input 1ch
2	COM	Input comon	11	DI2	Input 2ch
3	COM	Input comon	12	DI3	Input 3ch
4	COM	Input comon	13	DI4	Input 4ch
5	COM	Input comon	14	DI5	Input 5ch
6	COM	Input comon	15	DI6	Input 6ch
7	COM	Input comon	16	DI7	Input 7ch
8	COM	Input comon	17	DI8	Input 8ch
9	NC	Unused	18	NC	Unused

### ■ DISCRETE OUTPUT

9	8	7	6	5	4	3	2	1
NC	DO8-	DO7-	DO6-	DO5-	DO4-	DO3-	DO2-	DO1-
18	17	16	15	14	13	12	11	10
NC	DO8+	DO7+	DO6+	DO5+	DO4+	DO3+	DO2+	DO1+

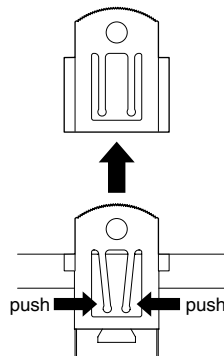
No.	ID	FUNCTION	No.	ID	FUNCTION
1	DO1-	Output 1ch-	10	DO1+	Output 1ch+
2	DO2-	Output 2ch-	11	DO2+	Output 2ch+
3	DO3-	Output 3ch-	12	DO3+	Output 3ch+
4	DO4-	Output 4ch-	13	DO4+	Output 4ch+
5	DO5-	Output 5ch-	14	DO5+	Output 5ch+
6	DO6-	Output 6ch-	15	DO6+	Output 6ch+
7	DO7-	Output 7ch-	16	DO7+	Output 7ch+
8	DO8-	Output 8ch-	17	DO8+	Output 8ch+
9	NC	Unused	18	NC	Unused

## INSTALLATION

### ■ WALL MOUNTING

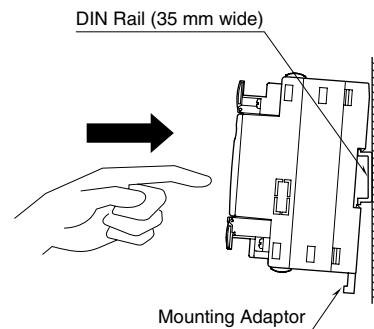
Attach the upper mounting adaptors to the upper side of the unit, and pull out the lower mounting adaptors from the lower side. Fasten a M4 screw through the mounting hole (4.5 mm dia.) of each adaptor. (torque 1.4 N·m)

To remove the upper mounting adaptor from the unit, pull it out while squeezing the latches as shown in the figure below.



### ■ DIN RAIL MOUNTING

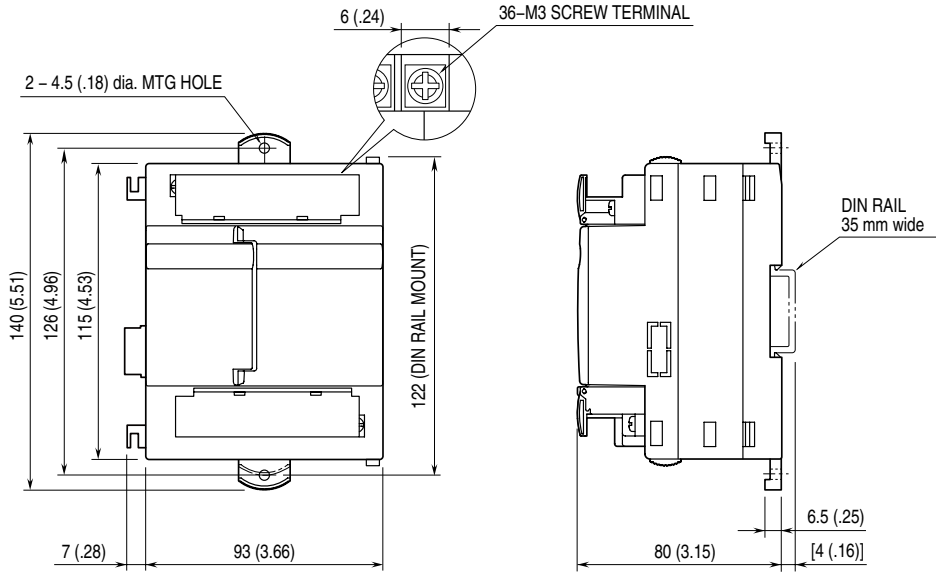
Set the unit so that the lower mounting adaptors are at the bottom. Hook the upper hook at the rear side of the unit onto the DIN rail and push in the lower part of the unit. When removing the unit, pull out the unit while pushing down the adaptors using a minus screwdriver.



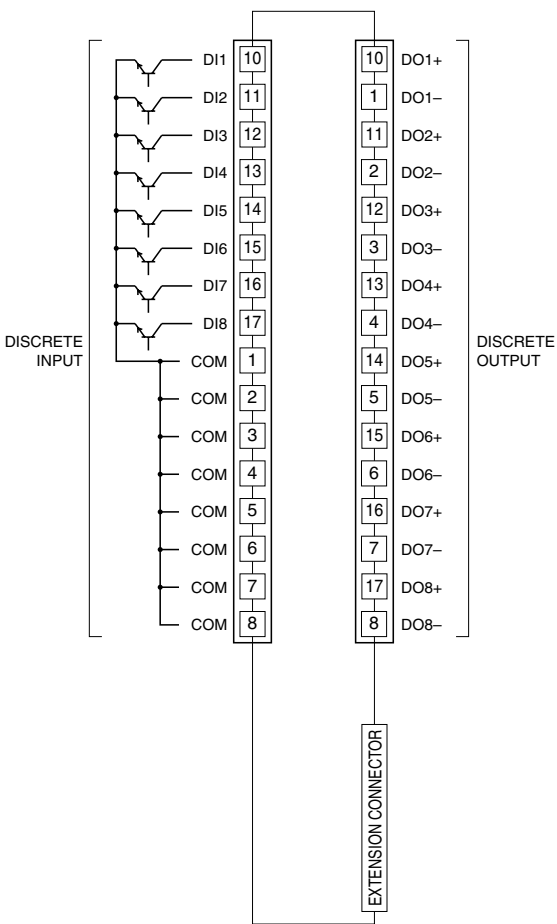
# TERMINAL CONNECTIONS

Connect the unit as in the diagram below.

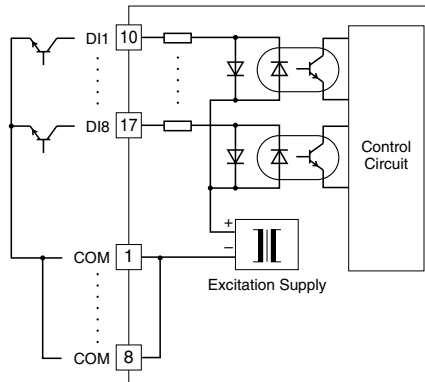
■ EXTERNAL DIMENSIONS unit: mm (inch)



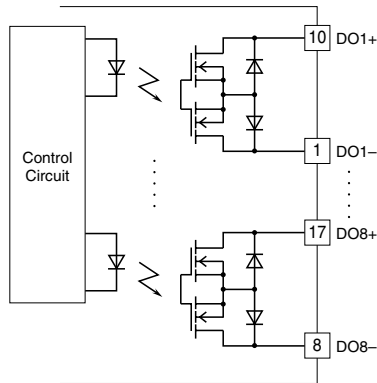
■ CONNECTION DIAGRAM



■ INPUT

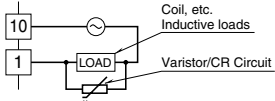


■ OUTPUT

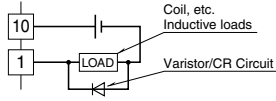


■ Refer to the figure below for Photo MOS Relay discrete protection and noise removal.

• AC Powered



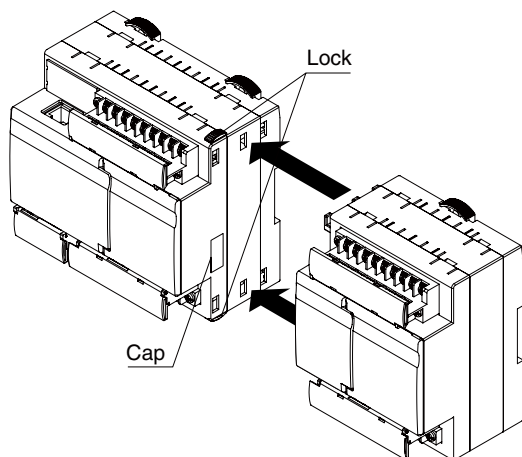
• DC Powered



## CONNECTING THE EXTENSION UNIT

- 1) Remove the cap.
- 2) Slide the two locks of the multi power monitoring unit to the back position.
- 3) Connect the extension unit to the multi power monitoring Unit.
- 4) Restore the two locks of the multi power monitoring unit to the front position.
- 5) Mount the combined unit on a DIN rail.

Note: When you remove or mount the unit, turn off the power supply and input signal for safety.



## WIRING INSTRUCTIONS

### ■ SCREW TERMINAL

Torque: 0.5 N·m

### ■ SOLDERLESS TERMINAL

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

Applicable wire size: 0.25 to 1.65 mm<sup>2</sup> (AWG 22 to 16)

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

