

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:

Multi power monitoring 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: < 1VA

DC: < 1W

■ 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.

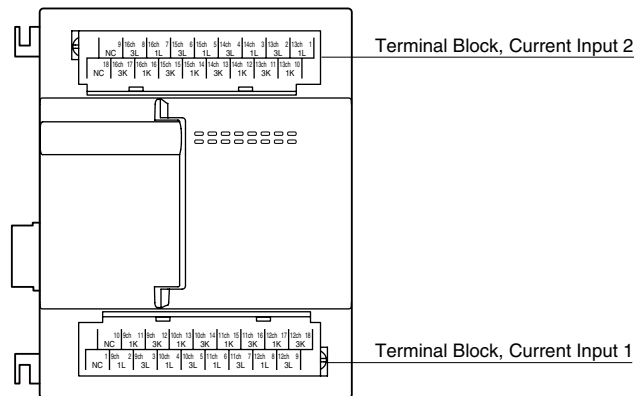
■ WIRING

- 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



TERMINAL ASSIGNMENTS

■ CURRENT INPUT 1

10	9ch	11	9ch	12	10ch	13	10ch	14	11ch	15	11ch	16	12ch	17	12ch	18
NC	1K	3K	1K	3K	1K	3K	1K	3K	1K	3K	1K	3K	1K	3K	1K	3K
1	9ch	2	9ch	3	10ch	4	10ch	5	11ch	6	11ch	7	12ch	8	12ch	9
NC	1L	3L	1L	3L	1L	3L	1L	3L	1L	3L	1L	3L	1L	3L	1L	3L

No.	ID	FUNCTION	ID	No.	FUNCTION
1	NC	Unused	10	NC	Unused
2	9ch 1L	9ch Current input 1L	11	9ch 1K	9ch Current input 1K
3	9ch 3L	9ch Current input 3L	12	9ch 3K	9ch Current input 3K
4	10ch 1L	10ch Current input 1L	13	10ch 1K	10ch Current input 1K
5	10ch 3L	10ch Current input 3L	14	10ch 3K	10ch Current input 3K
6	11ch 1L	11ch Current input 1L	15	11ch 1K	11ch Current input 1K
7	11ch 3L	11ch Current input 3L	16	11ch 3K	11ch Current input 3K
8	12ch 1L	12ch Current input 1L	17	12ch 1K	12ch Current input 1K
9	12ch 3L	12ch Current input 3L	18	12ch 3K	12ch Current input 3K

■ CURRENT INPUT 2

9	16ch	8	16ch	7	15ch	6	15ch	5	14ch	4	14ch	3	13ch	2	13ch	1
NC	3L	1L	3L	1L	3L	1L	3L	1L	3L	1L	3L	1L	3L	1L	3L	1L
18	16ch	17	16ch	16	15ch	15	15ch	14	14ch	13	14ch	12	13ch	11	13ch	10
NC	3K	1K	3K	1K	3K	1K	3K	1K	3K	1K	3K	1K	3K	1K	3K	1K

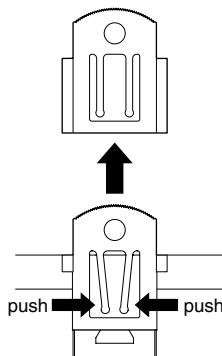
No.	ID	FUNCTION	No.	ID	FUNCTION
1	13ch 1L	13ch Current input 1L	10	13ch 1K	13ch Current input 1K
2	13ch 3L	13ch Current input 3L	11	13ch 3K	13ch Current input 3K
3	14ch 1L	14ch Current input 1L	12	14ch 1K	14ch Current input 1K
4	14ch 3L	14ch Current input 3L	13	14ch 3K	14ch Current input 3K
5	15ch 1L	15ch Current input 1L	14	15ch 1K	15ch Current input 1K
6	15ch 3L	15ch Current input 3L	15	15ch 3K	15ch Current input 3K
7	16ch 1L	16ch Current input 1L	16	16ch 1K	16ch Current input 1K
8	16ch 3L	16ch Current input 3L	17	16ch 3K	16ch Current input 3K
9	NC	Unused	18	NC	Unused

INSTALLATION

■ WALL MOUNTING

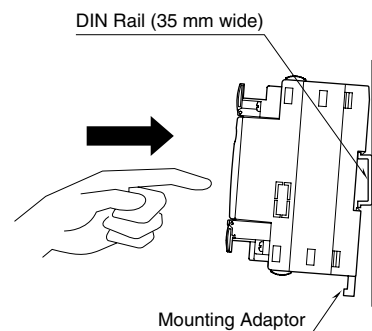
Attach the upper mounting adaptors to the upper side of the unit, and pull out the lower mounting adaptors from the lower side. Fasten a M4 screw through the mounting hole (4.5 mm dia.) of each adaptor. (torque 1.4 N·m)

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

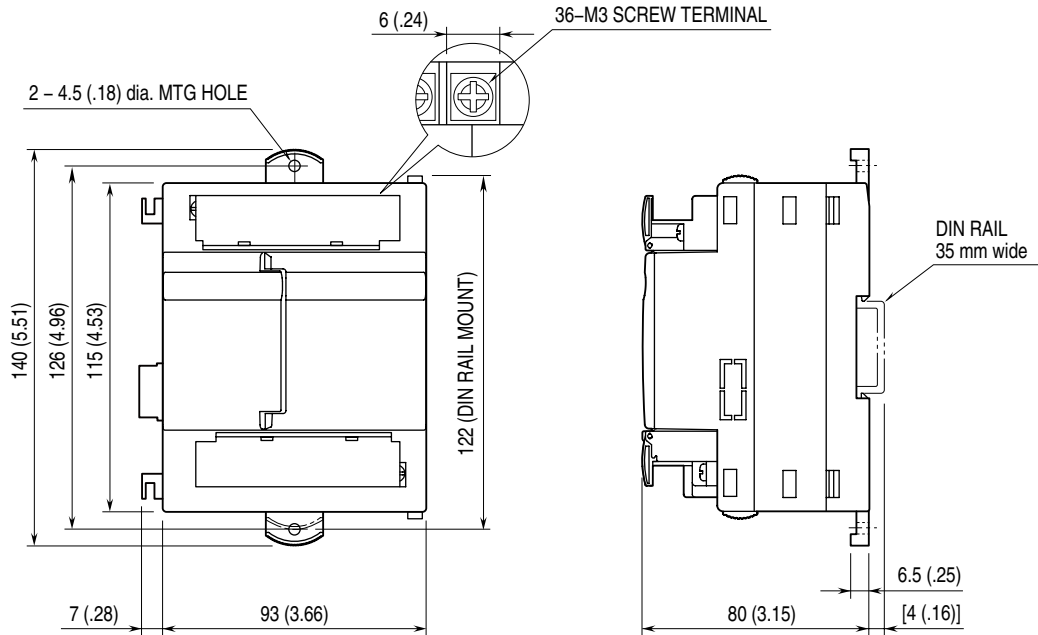
Set the unit so that the lower mounting adaptors are at the bottom. Hook the upper hook at the rear side of the unit onto the DIN rail and push in the lower part of the unit. When removing the unit, pull out the unit while pushing down the adaptors using a minus screwdriver.



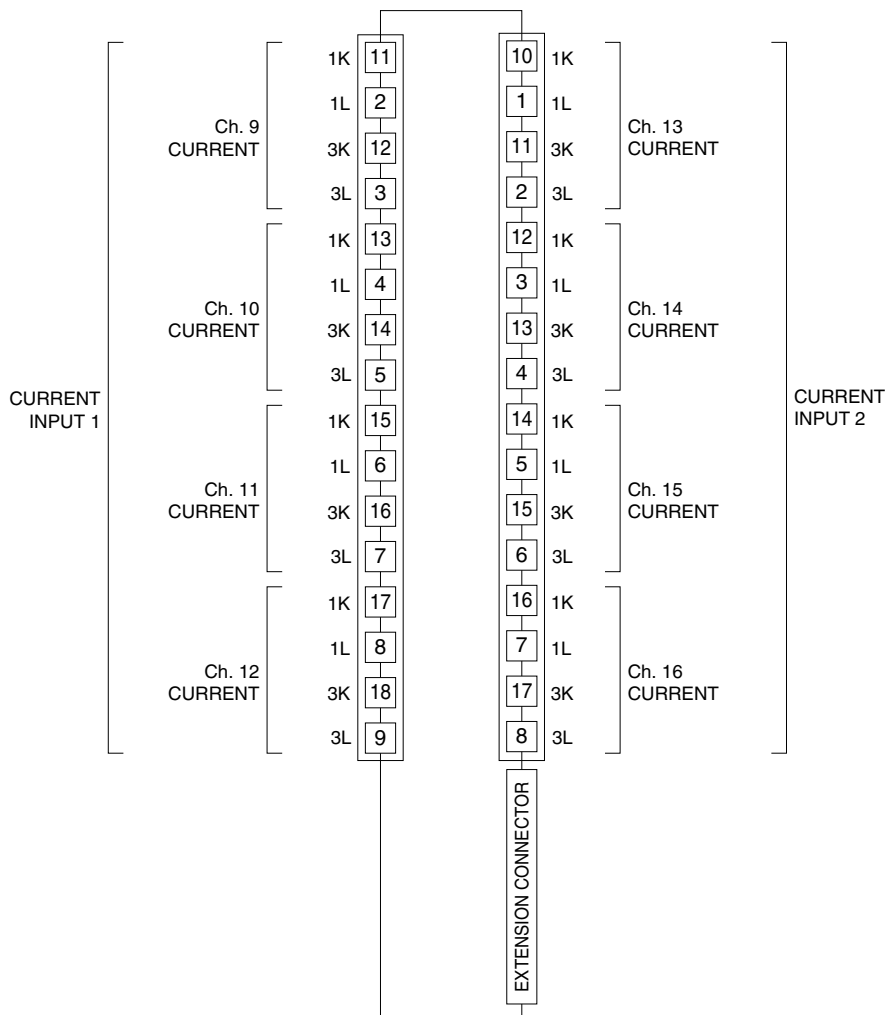
TERMINAL CONNECTIONS

Connect the unit as in the diagram below.

EXTERNAL DIMENSIONS unit: mm (inch)



CONNECTION DIAGRAM



INPUT WIRING

Use the model CLSE clamp sensor for current inputs.
The figure below shows only one circuit.

A maximum of eight (8) current sensor inputs can be connected (Ch. 9 through Ch. 16).

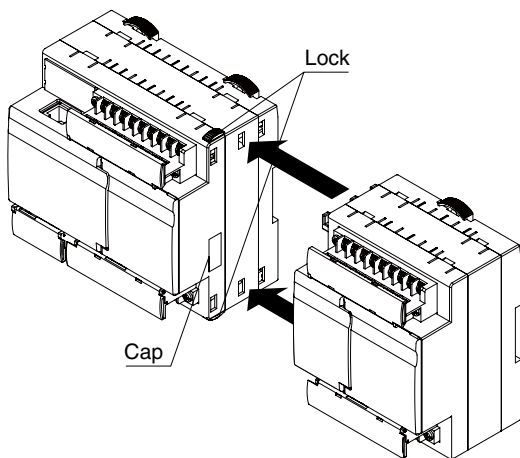
Grounding is not required for low voltage circuits.

System / Application	Terminal	System / Application	Terminal
Single-phase / 2-wire		Three-phase / 3-wire balanced load	
Single-phase / 3-wire		Three-phase / 3-wire unbalanced load	

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 mm² (AWG 22 to 16)
Recommended manufacturer: Japan Solderless Terminal MFG. Co., Ltd, Nichifu Co., Ltd

