

**EXTENSION POWER SUPPLY MODULE  
(non-isolated)**

MODEL **R8-PS1**

**BEFORE USE ....**

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

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

**■ PACKAGE INCLUDES:**

Extension power supply module..... (1)

**■ 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 EU DIRECTIVES**

- The equipment must be mounted inside a panel.
- 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.

**■ POWER INPUT RATING & OPERATIONAL RANGE**

- Locate the power input rating marked on the product and confirm its operational range as indicated below:

DC Power supply: Rated voltage 24V DC  
24V DC ± 10%, approx. 11W  
(@ internal power max. current 1.6 A)

Excitation supply (excitation for I/O module):  
24V DC ± 10%, operational current 8 A

(From power supply (excitation supply) connector, via connector for internal bus, supplied to each I/O module. Power output current consumption must be under operational current.)

**■ GENERAL PRECAUTIONS**

- Before you remove or mount the unit, turn off the power supply and output 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 apply physical impact to the unit.
- 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**

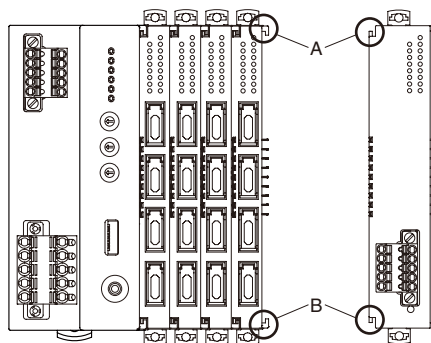
- Do not install cables close to noise sources (relay drive cable, high frequency line, etc.).
- Do not bind these cables together with those in which noises are present. Do not install them in the same duct.

**■ POWER UP**

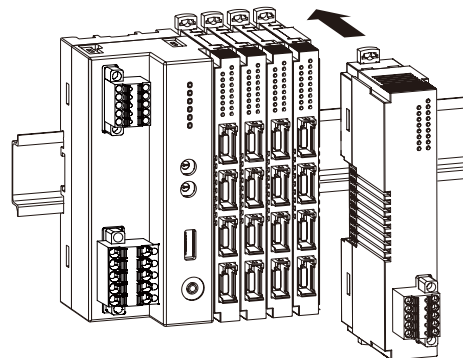
- Turn the power on at the same time as the power/network module or turn the R8-PS1 on before the power/network module turned on. If the R8-PS1 is not turned on within 3 seconds after the power/network module is turned on, I/O modules are not correctly recognized.

**INSTALLATION**

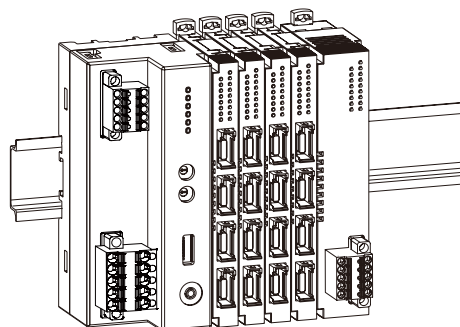
**■ HOW TO MOUNT THE MODULE ON DIN RAIL**



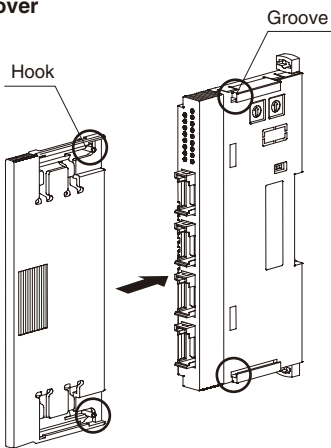
Confirm that the locking clamps of the extension power supply module are set. Insert the module in parallel to the next one while aligning the grooves of both modules (A & B in the above figure). Maintain it perpendicularly to the rail.



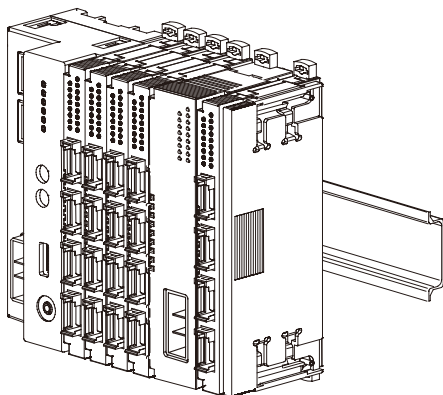
More I/O modules can be added in the same manner.



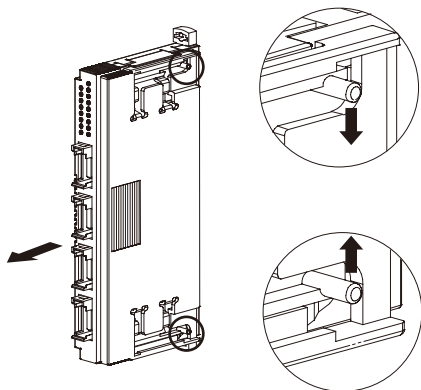
• Protective Cover



The protective cover is to be attached over the connected I/O module at the right end.  
Align the hooks on the cover with the grooves of the module and slide it straight until the hooks are latched.

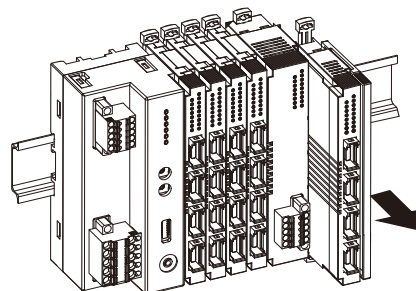
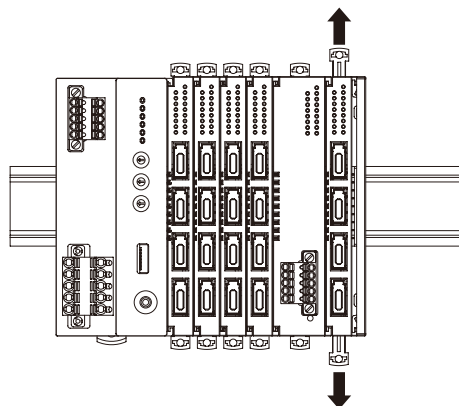


When removing the cover, pull it out while squeezing the hooks inward.

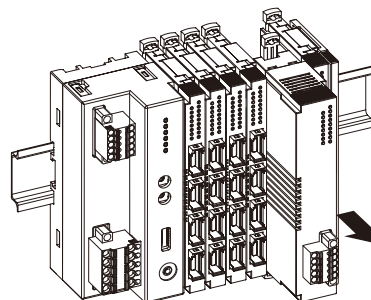
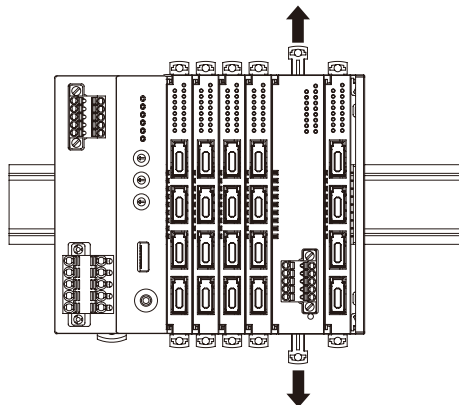


■ HOW TO UNMOUNT THE MODULE FROM DIN RAIL

Release the locking clamps and pull out straight the module.



• Removing an intermediate module



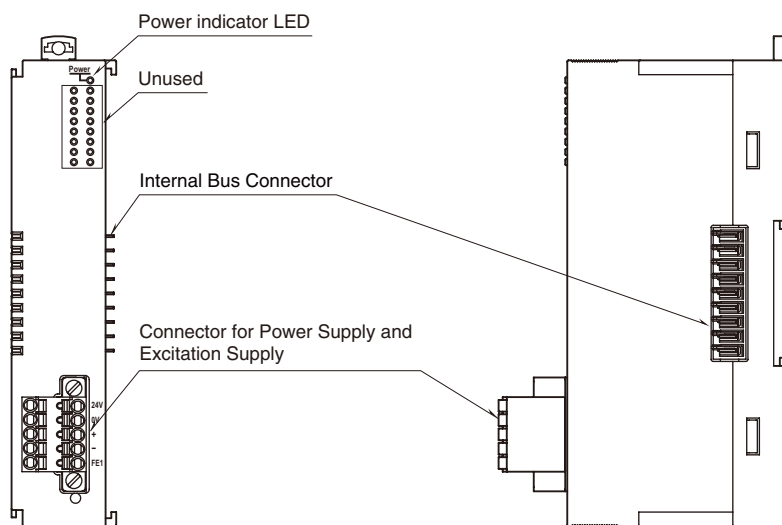
**Caution !**

- 1) Be careful not to hurt your hand by pointed edges of the internal communication bus connector.
- 2) I/O modules cannot hold tightly on the DIN rail by themselves without power/network module. Secure them to the position if necessary by using DIN rail end plates.

## COMPONENT IDENTIFICATION

### ■ FRONT VIEW

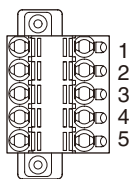
### ■ SIDE VIEW



### ■ POWER INDICATOR LED

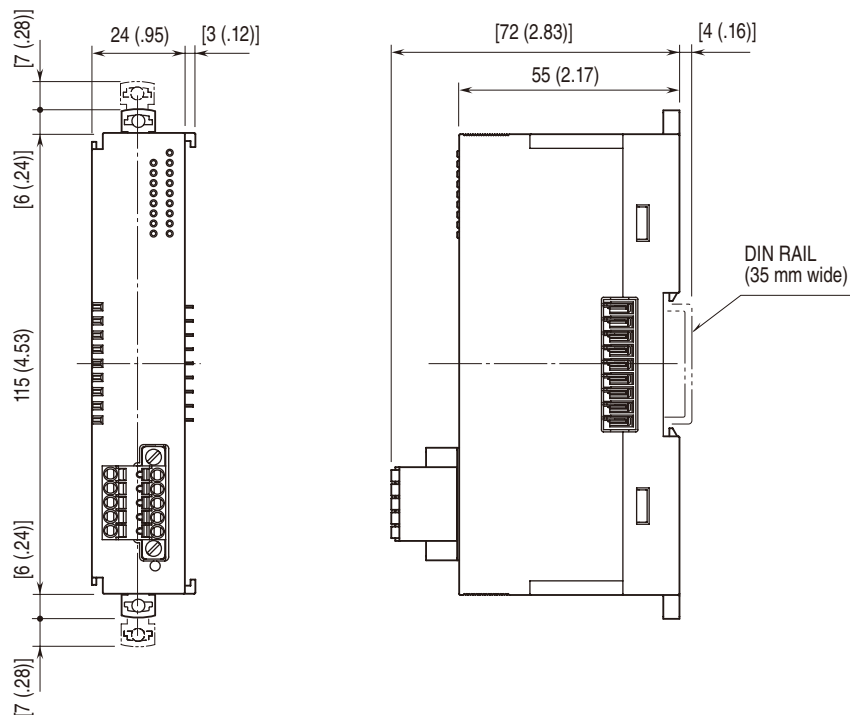
Green, ON during module power on

### ■ POWER SUPPLY, EXCITATION SUPPLY CONNECTOR ASSIGNMENT



PIN No.	ID	FUNCTION
1	24V	Power supply 24V DC
2	0V	Power supply 0V DC
3	+	Excitation supply 24V DC
4	-	Excitation supply 0V DC
5	FE1	Grounding

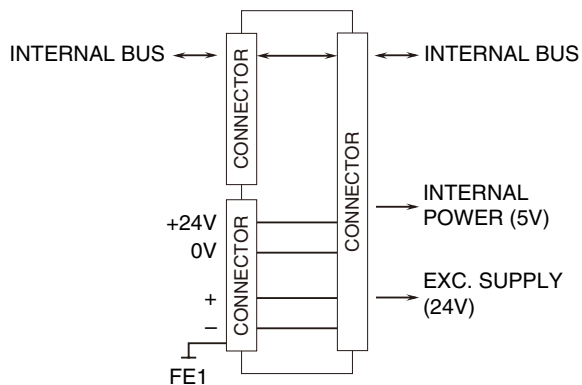
## EXTERNAL DIMENSIONS unit: mm (inch)



## CONNECTION DIAGRAM

Note: In order to improve EMC performance, bond the FE1 terminal to ground.

Caution: FE1 terminal is NOT a protective conductor terminal.



Internal bus is connected for the modules near to the power / network module out of the modules connected to the R8-PS1. Internal power and Exc. supply are not connected. All modules far from the power / network module are connected.

## WIRING INSTRUCTIONS

### ■ POWER SUPPLY, EXCITATION SUPPLY CONNECTOR

Printed-circuit board connector (Phoenix Contact)

Header: MC1,5/5-GF-3,5

Plug component: TFMC1,5/5-STF-3,5

Applicable wire size: 0.2 - 1.5 mm<sup>2</sup>,  
stripped length 10 mm