

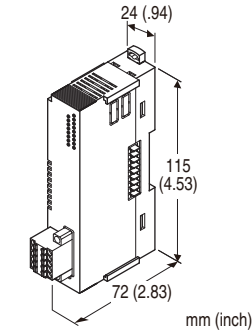
Remote I/O R8 Series

EXTENSION POWER SUPPLY MODULE

(non-isolated)

Functions & Features

- Inserted between I/O modules and supply the power
- Up to two R8-PS1 use is available



MODEL: R8-PS1-R[1]

ORDERING INFORMATION

- Code number: R8-PS1-R[1]

Specify a code from below for [1].

(e.g. R8-PS1-R/Q)

- Specify the specification for option code /Q
(e.g. /C01)

POWER INPUT

DC power

R: 24 V DC

(Operational voltage range: $\pm 10\%$; ripple 10 %p-p max.)

[1] OPTIONS

blank: none

/Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q

COATING (For the detail, refer to M-System's web site.)

/C01: Silicone coating

/C02: Polyurethane coating

CAUTION

OUTPUT CURRENT & NUMBER OF CONNECTABLE UNIT

It is NOT available to connect 16 of R8-YV4N to power/network module because of limitation of output current of internal supply. The max. output current for internal supply of power/network module is 1.6 A. The max. consumption current for internal supply of R8-

YV4N is 160 mA.

$$1.6 \text{ (A)} < 160 \text{ (mA)} \times 16 = 2.56 \text{ (A)}$$

Inserting the R8-PS1 between 10th and 11th R8-YV4N enables to connect 16 of R8-YV4N.

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

GENERAL SPECIFICATIONS

Connection

• **Power input, excitation supply:** Tension clamp (Front Twin connection)

• **Applicable wire size:** 0.2 - 1.5 mm²

• **Stripped length:** 10 mm

• **Internal bus or internal power:** Via connector

• **Max. number of I/O modules:** 16

(Max. consumption current of I/O modules: 1.6 A)

• **Isolation:** Internal bus or internal power or power input to exc. supply to FE1

• **Power LED:** Green light turns on when the power is supplied.

INSTALLATION

Power consumption

• **DC:** Approx. 11 W 24 V DC (@ internal power max. current 1.6 A)

• **Internal power supply (power supply for I/O module):**

• DC power supply: 5 V DC

• Current capacity: 1.6 A

• **Excitation supply output (excitation for I/O module)**

• **DC:** 24 V DC $\pm 10\%$

• **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.)

• **Operating temperature:** -10 to +55°C (14 to 131°F)

• **Operating humidity:** 30 to 90 %RH (non-condensing)

• **Atmosphere:** No corrosive gas or heavy dust

• **Mounting:** DIN rail

• **Weight:** 100 g (3.53 oz)

PERFORMANCE

• **Insulation resistance:** $\geq 100 \text{ M}\Omega$ with 500 V DC

• **Dielectric strength:** 1500 V AC @ 1 minute

(internal bus or internal power or power input to exc. supply to FE1)

STANDARDS & APPROVALS

EU conformity:

EMC Directive

EMI EN 61000-6-4

EMS EN 61000-6-2

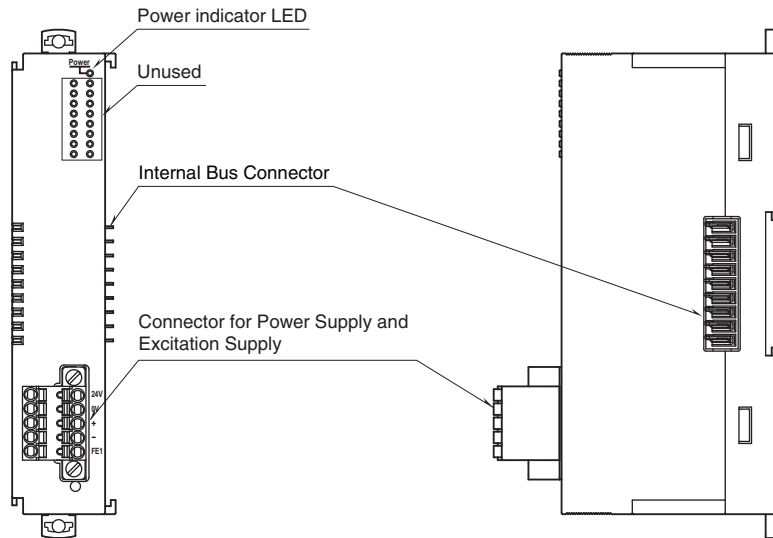
RoHS Directive

EN 50581

EXTERNAL VIEW

FRONT VIEW

SIDE VIEW



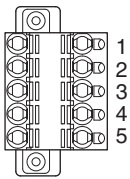
CONNECTION DIAGRAMS

POWER SUPPLY, EXCITATION SUPPLY CONNECTOR ASSIGNMENT

Printed-circuit board connector (Phoenix Contact)

Unit side connector: MC1,5/5-GF-3,5

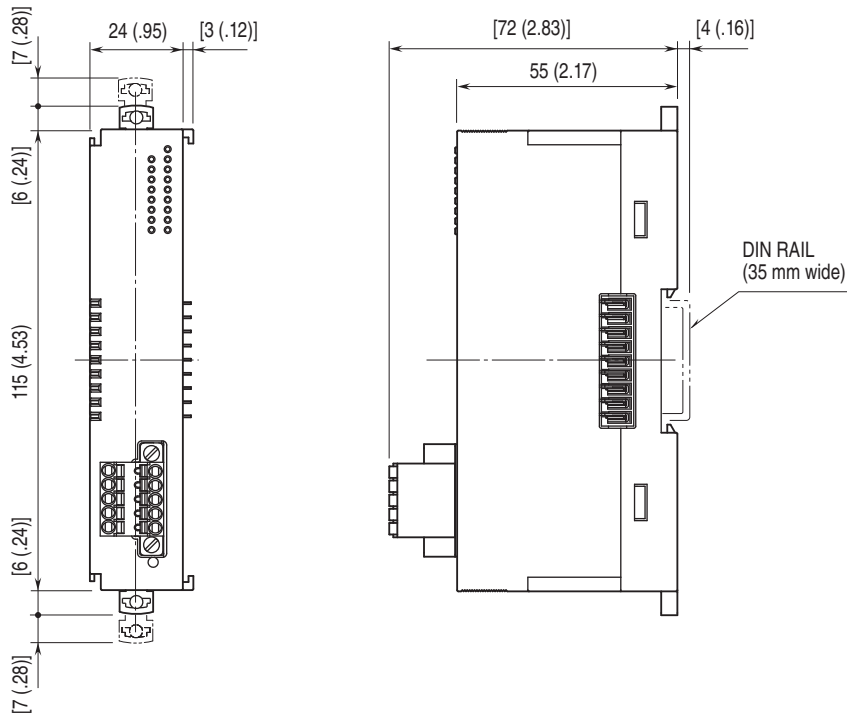
Cable side connector: TFMC1,5/5-STF-3,5



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

Note: The numbers marked on the connector have no relationship to the pin number of the unit.
Wire according to the instruction manual of the unit.

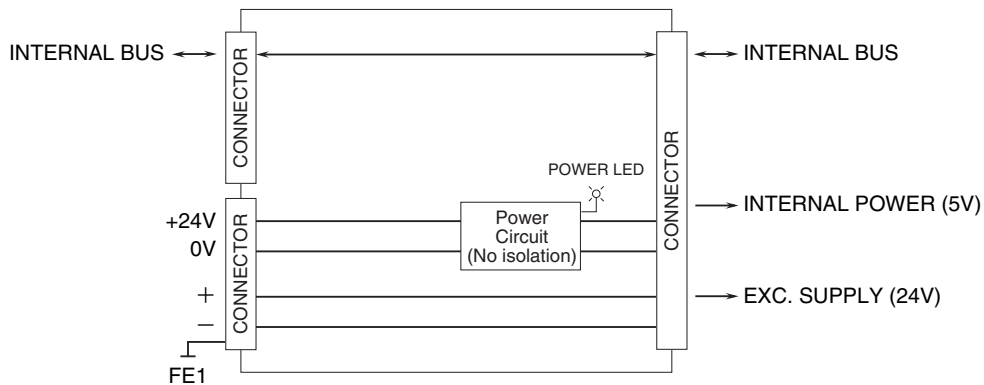
DIMENSIONS unit: mm (inch)



SCHEMATIC CIRCUITRY

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.



Specifications are subject to change without notice.