

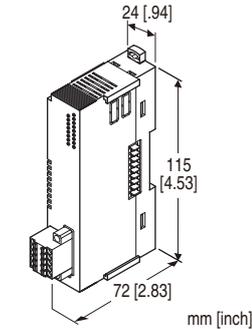
## Remote I/O R80 Series

### EXTENSION POWER SUPPLY MODULE

(non-isolated)

#### Functions & Features

- Inserted between I/O modules and supply the power
- Up to two R80PS1 use is available



### MODEL: R80PS1-R[1]

#### ORDERING INFORMATION

- Code number: R80PS1-R[1]

Specify a code from below for [1].

(e.g. R80PS1-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 our web site.)

/C01: Silicone coating

/C02: Polyurethane coating

#### CAUTION

##### OUTPUT CURRENT & NUMBER OF CONNECTABLE UNIT

It is NOT available to connect 16 of R80UST4 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

R80UST4 is 170 mA.

$$1.6 \text{ (A)} < 170 \text{ (mA)} \times 16 = 2.72 \text{ (A)}$$

Inserting the R8-PS1 between 9th and 10th R80PS1 enables to connect 16 of R80UST4.

#### POWER UP

Turn the power on at the same time as the power/network module or turn the R80PS1 on before the power/network module turned on. If the R80PS1 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 mm<sup>2</sup>

• **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 indicator LED:** Green LED 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:** 10 to 90 %RH (non-condensing)

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

• **Mounting:** DIN rail

• **Weight:** 100 g (0.22 lb)

#### 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

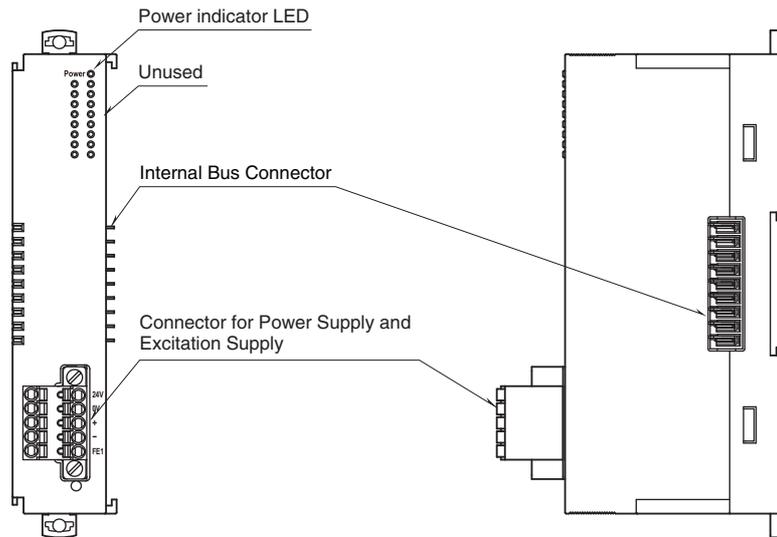
EMS EN 61000-6-2

RoHS Directive

## EXTERNAL VIEW

■ FRONT VIEW

■ SIDE VIEW



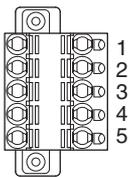
## CONNECTION DIAGRAMS

### ■ POWER SUPPLY, EXCITATION SUPPLY CONNECTOR ASSIGNMENT

Printed-circuit board connector (Phoenix Contact)

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

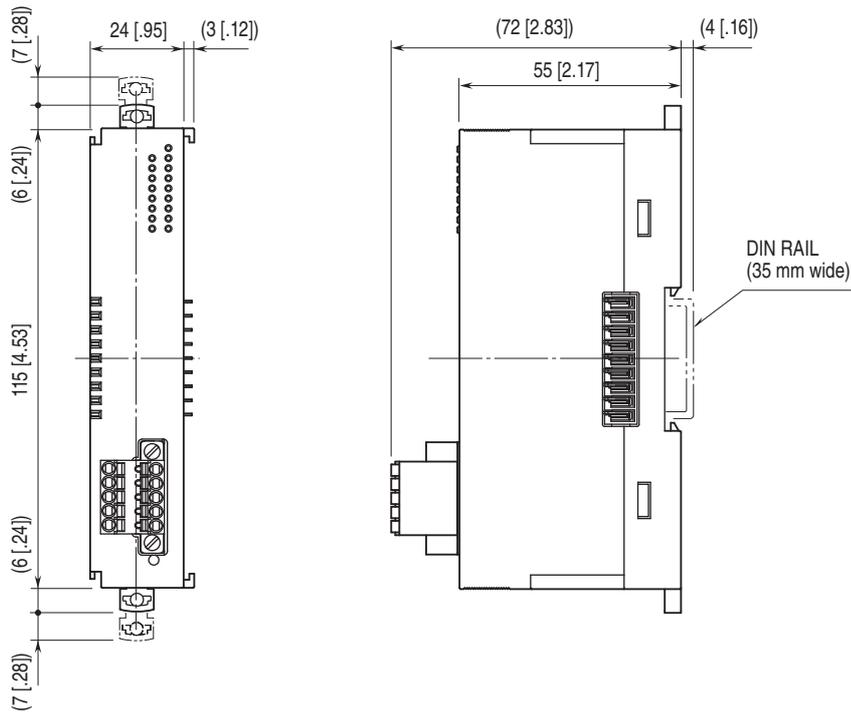
Cable side connector: TFMC1,5/5-STF-3,5



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.

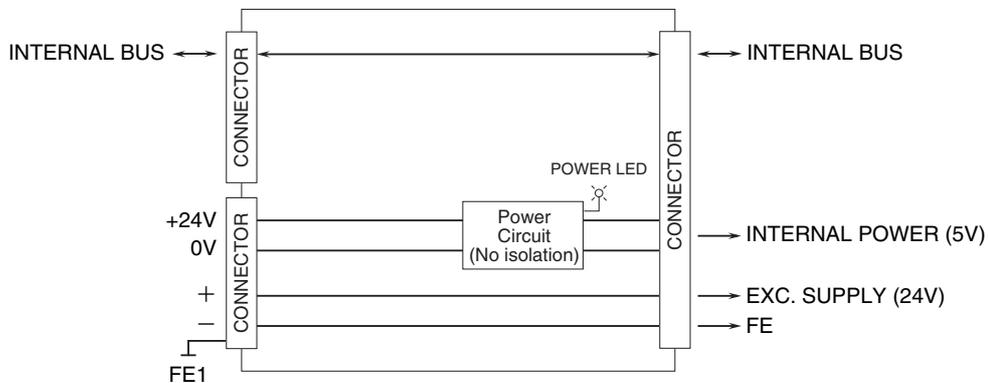
## DIMENSIONS unit: mm (inch)



## 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 R80PS1. 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.