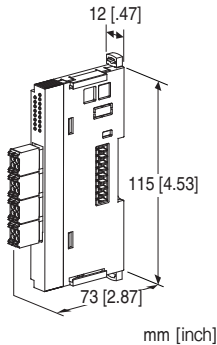


Remote I/O R8 Series

HIGH-SPEED TOTALIZED PULSE INPUT MODULE, 4 points (NPN input)

Functions & Features

- Space-saving remote I/O module of 4 points input pulse counter
- Each channel is attachable/detachable independently with separable tension clamp terminal



MODEL: R8-PAT4FA[1]

ORDERING INFORMATION

- Code number: R8-PAT4FA[1]
Specify a code from below for [1].
(e.g. R8-PAT4FA/Q)
- Specify the specification for option code /Q
(e.g. /C01)

INPUT

A: NPN input

[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

RELATED PRODUCTS

- PC Configurator cable (model: MCN-CON or COP-US)
 - PC configurator software (model: R8CFG)
- Downloadable at our web site.
Note: When using with Power/Network module (model: R8-NECT1), firmware version Ver1.50 or later is supported.

GENERAL SPECIFICATIONS

Connection

- **Input:** Separable tension clamp terminal
- **Excitation supply, internal bus:**
Connected to internal bus connector
- **Internal power:** Via bus connector

Isolation: Input or exc. supply to internal bus or internal power

Module address: With rotary switch

Terminating resistor: Built-in (DIP Switch, default: disable)

Status indicator: Bi-color (red/green) LED; Refer to the instruction manual.

Input status indicator: Green LED; Refer to the instruction manual.

INPUT SPECIFICATIONS

Common: Positive common (NPN) per 4 points

Number of inputs: 4

I/O status indicator: LED turns on with closed contact.

• **NPN input** (internal supply with excitation supply input from network power module)

Rated load voltage: 24 V DC $\pm 10\%$; ripple 5 %p-p max.

ON voltage / ON current: ≥ 16 V DC (input terminal to COM) / ≥ 7.2 mA

OFF voltage / OFF current: ≤ 6 V DC (input terminal to COM) / ≤ 2.5 mA

Input current: 11.2 mA / point (@24 V DC)

Input resistance: Approx. 2 k Ω

Max. Frequency: 10 kHz

Min. pulse width requirement: 20 μ sec. for both ON and OFF

Accumulated pulse count: 0 - 4 294 967 295

Max. accumable pulse: 1 - 4,294,967,295 (factory setting: 4,294,967,295)

Overflow reset value: 0 or 1 (factory setting: 0)

INSTALLATION

Max. current consumption: 90 mA

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: 80 g (2.8 oz)

PERFORMANCE

Data allocation: 2

Module addresses in use: 4

Power output (input connector): Rated current 0.1 A DC per channel (rated current 3 A for internal fuse (slow blow fuse i^2t (A²sec.) max. 0.31); Total: 0.4 A DC

Input data update period: 10 msec.

Insulation resistance: ≥ 100 M Ω with 500 V DC

Dielectric strength: 1500 V AC @ 1 minute
(input or exc. supply to internal bus or internal power to ground)

STANDARDS & APPROVALS

EU conformity:

EMC Directive

EMI EN 61000-6-4

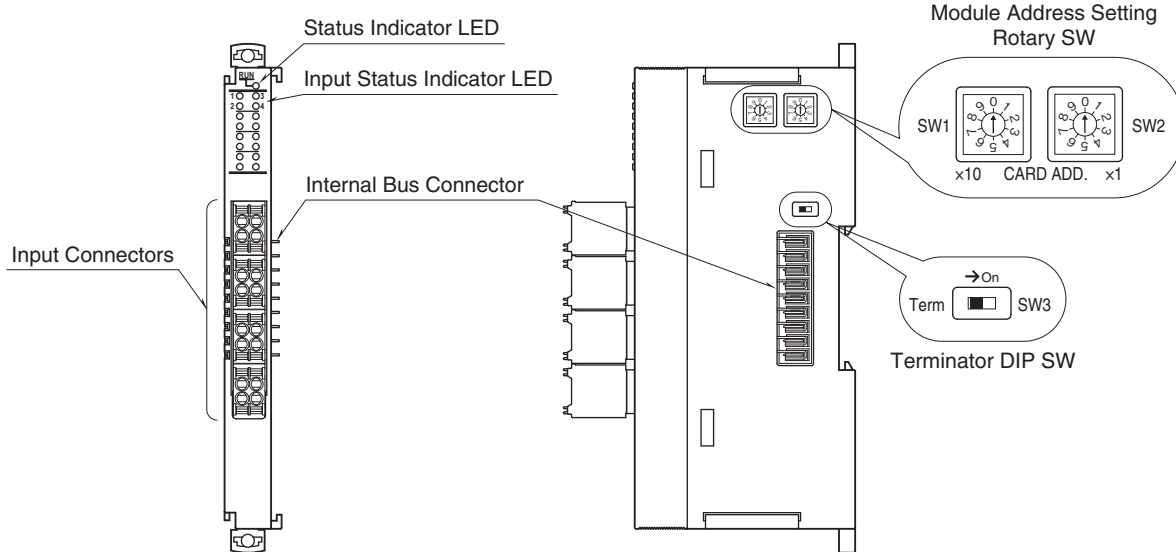
EMS EN 61000-6-2

RoHS Directive

EXTERNAL VIEW

■ FRONT VIEW

■ SIDE VIEW



WIRING**■ SEPARABLE TENSION CLAMP TERMINAL**

Unit side connector: MG's product

Cable side connector: DPMC1,5/2-ST-3,5 (Phoenix Contact)
(included in the package)

Applicable wire size: 0.2 - 1.5 mm²

Stripped length: 10 mm

Recommended solderless terminal

- AI0,25-10YE 0.25 mm² (Phoenix Contact)
- AI0,34-10TQ 0.34 mm² (Phoenix Contact)
- AI0,5-10WH 0.5 mm² (Phoenix Contact)
- AI0,75-10GY 0.75 mm² (Phoenix Contact)
- A1-10 1.0 mm² (Phoenix Contact)
- A1,5-10 1.5 mm² (Phoenix Contact)

1 Pi 1	2 NC
3 24V	4 0V

5 Pi 2	6 NC
7 24V	8 0V

9 Pi 3	10 NC
11 24V	12 0V

13 Pi 4	14 NC
15 24V	16 0V

PIN No.	ID	FUNCTION
1	Pi 1	Input 1
2	NC	No connection
3	24V	Excitation supply (+)
4	0V	Excitation supply (-)
5	Pi 2	Input 2
6	NC	No connection
7	24V	Excitation supply (+)
8	0V	Excitation supply (-)
9	Pi 3	Input 3
10	NC	No connection
11	24V	Excitation supply (+)
12	0V	Excitation supply (-)
13	Pi 4	Input 4
14	NC	No connection
15	24V	Excitation supply (+)
16	0V	Excitation supply (-)

OPERATING MODE SETTING

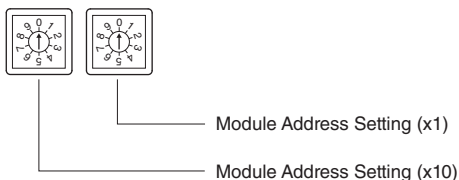
(*) Factory setting

■ Module Address

The left switch determines the tenth place digit, while the right switch does the ones place digit of the address.

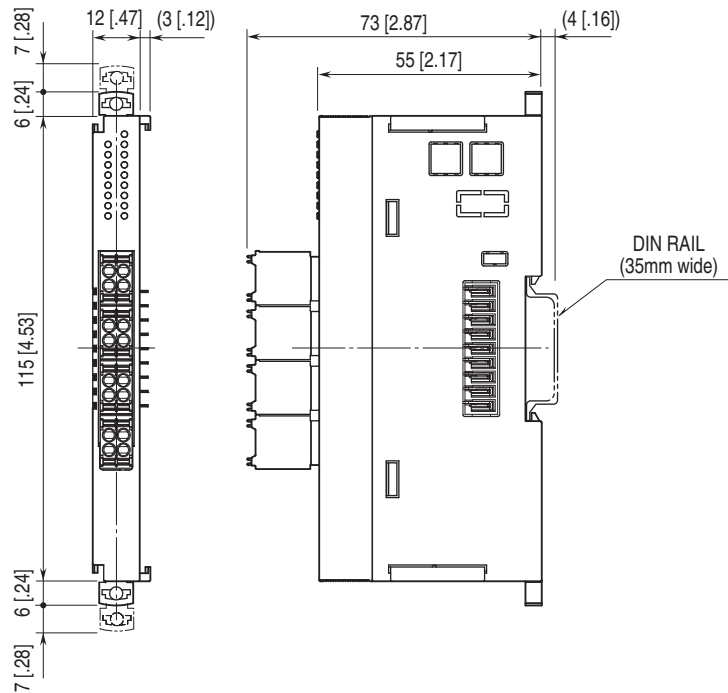
Address is selected between 0 to 28.

(Factory setting: 0)

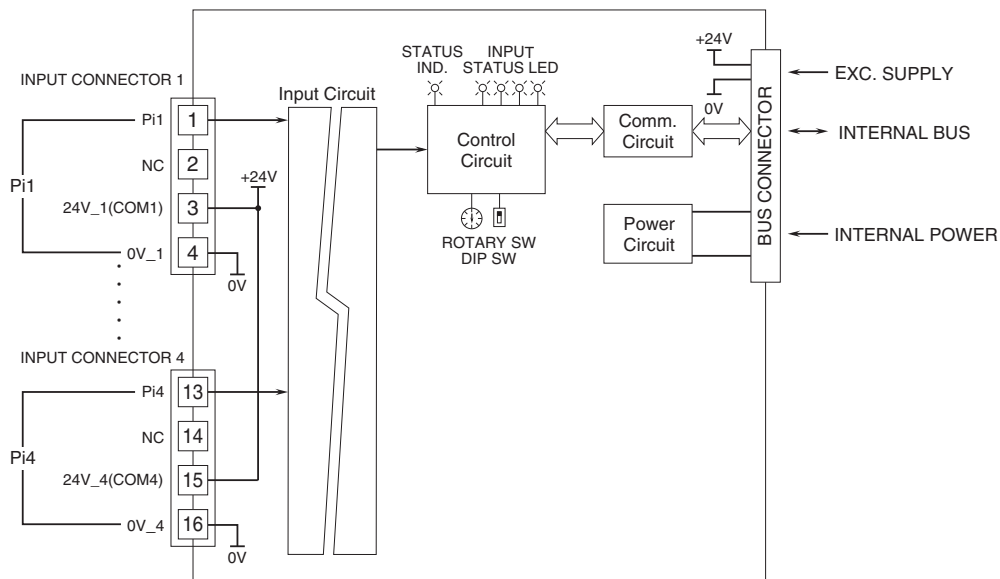
**■ Terminator DIP SW**

TERMINATOR DIP SW	SW3
Without (*)	OFF
With	ON

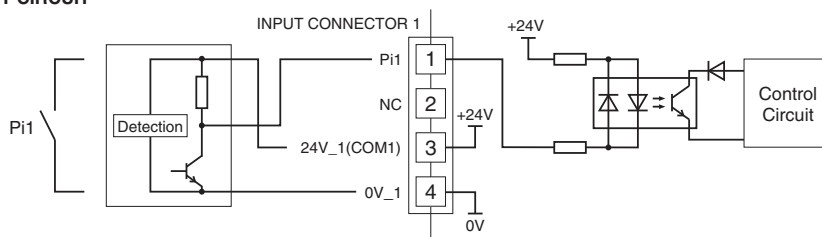
EXTERNAL DIMENSIONS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



■ INPUT CIRCUIT





Specifications are subject to change without notice.