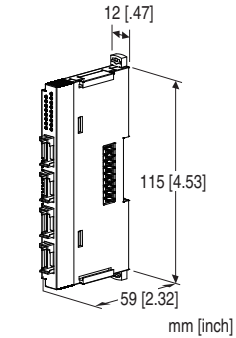


## Remote I/O R8 Series

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

#### Functions & Features

- Space-saving remote I/O module of 4 points input pulse counter



### MODEL: R8-PA4FA[1]

#### ORDERING INFORMATION

- Code number: R8-PA4FA[1]  
Specify a code from below for [1].  
(e.g. R8-PA4FA/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:** 4-pin e-CON connector  
Unit side connector XN2D-1474-S002 (Omron)  
Recommended cable side connector XN2A-1470 (Omron)  
Applicable wire size: 0.08 - 0.5 mm<sup>2</sup> (AWG28 - 20)  
Outer sheath diameter: max. 1.5 dia  
(The cable connector is not included in the package.  
Refer to the specifications of the product.)

##### •Excitation supply, internal bus:

Connected to internal bus connector

##### •Internal power:

Supplied from internal 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:**  $\geq 16$  V DC (input terminal to COM) /  $\geq 7.2$  mA

**OFF voltage / OFF current:**  $\leq 6$  V DC (input terminal to COM) /  $\leq 2.5$  mA

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

**Input resistance:** Approx. 2 k $\Omega$

**Max. Frequency:** 10 kHz

**Min. pulse width requirement:** 20  $\mu$ sec. for both ON and OFF

**Accumulated pulse count:** 0 - 4 294 967 295

**Max. accumulable 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:** 60 g (2.12 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  $i^2t$  ( $A^2\text{sec.}$ ) max. 0.31); Total: 0.4 A DC

**Input data update period:** 10 msec.

**Insulation resistance:**  $\geq 100 \text{ M}\Omega$  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

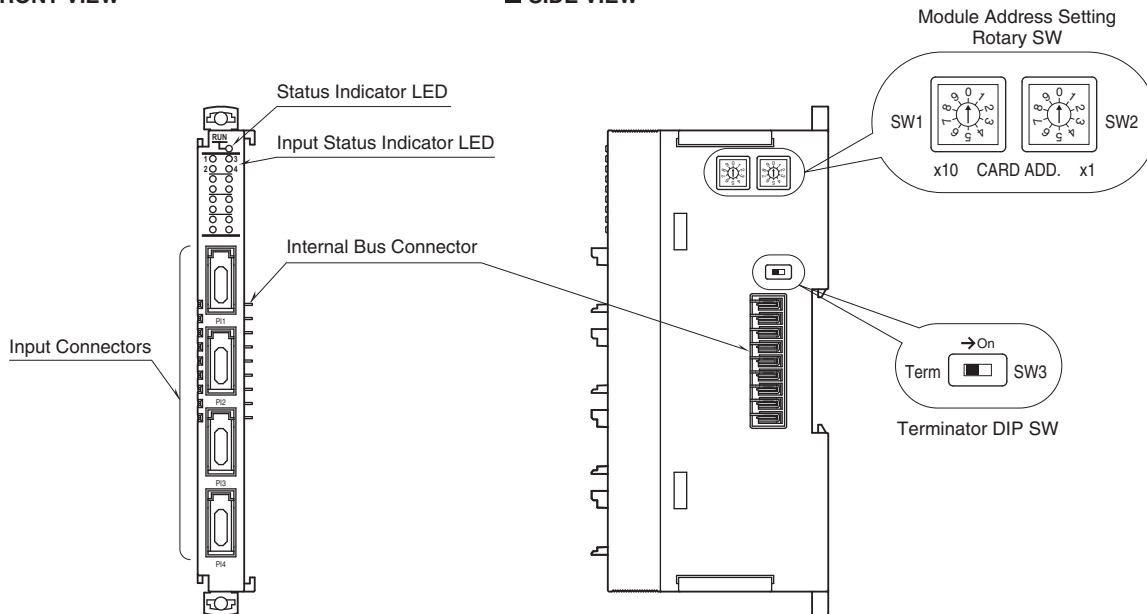
EMS EN 61000-6-2

RoHS Directive

## EXTERNAL VIEW

■ FRONT VIEW

■ SIDE VIEW



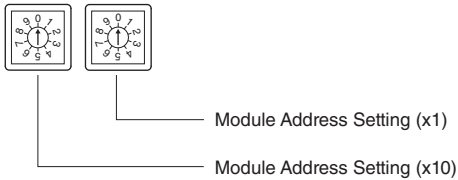
## OPERATING MODE SETTING

(\*) 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.

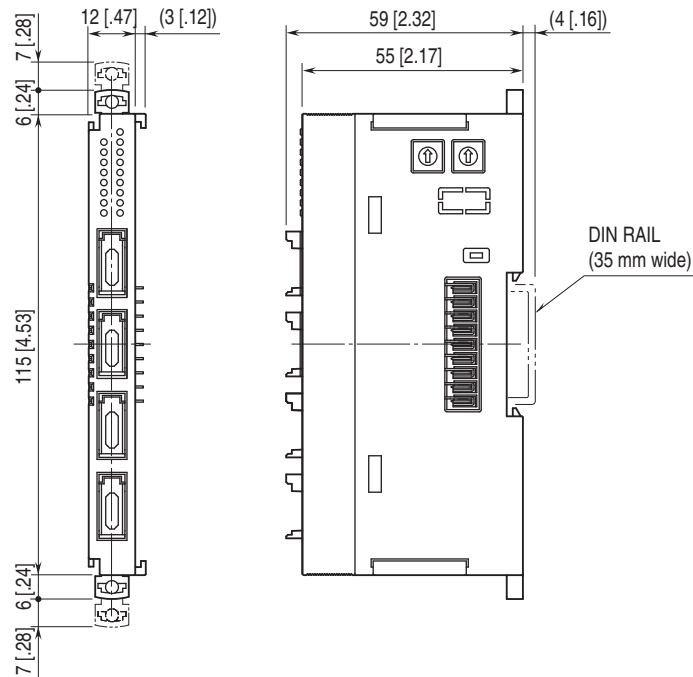
(Factory setting: 0)



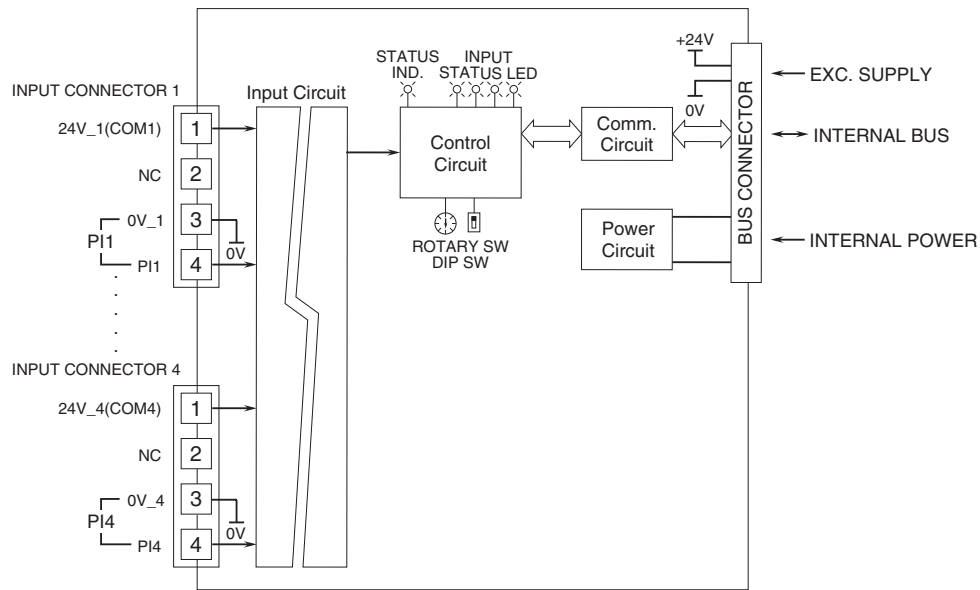
### ■ Terminator DIP SW

TERMINATOR DIP SW	SW3
Without (*)	OFF
With	ON

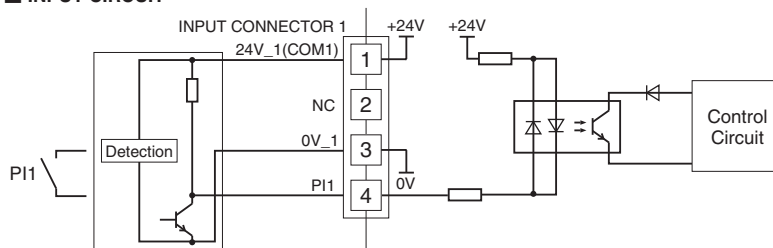
## EXTERNAL DIMENSIONS unit: mm [inch]



## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



### ■ INPUT CIRCUIT



Specifications are subject to change without notice.