

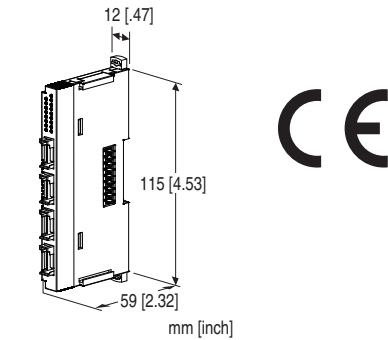
Remote I/O R8 Series

TOTALIZED PULSE INPUT MODULE, 4 points

(NPN / PNP / voltage pulse input)

Functions & Features

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



MODEL: R8-PA4[1][2]

ORDERING INFORMATION

- Code number: R8-PA4-[1][2]

Specify a code from below for each of [1] and [2].

- (e.g. R8-PA4A/Q)
- Specify the specification for option code /Q (e.g. /C01)

[1] INPUT

- A: NPN input
- B: PNP input
- C: Voltage pulse input

[2] 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.

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 mm² (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 or negative common (NPN/PNP) per 4 points

Number of inputs: 4

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

• **NPN/PNP 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 resistance: ≤ 4 V (input terminal to COM) / $\leq 900 \Omega$

OFF voltage / OFF resistance: ≥ 16 V (input terminal to COM) / $\geq 10 \text{ k}\Omega$

• **Voltage pulse input**

Max. input voltage amplitude: 24 V DC + $\leq 10\%$

ON voltage / ON current: ≥ 16 V DC (input terminal to COM) / $\geq 3.7 \text{ mA}$

OFF voltage / OFF current: ≤ 5 V DC (input terminal to COM) / $\leq 1 \text{ mA}$

Input current: $\leq 5.5 \text{ mA}$ / point (@24 V DC)

Input resistance: Approx. 4.4 k Ω

ON delay: $\leq 2.0 \text{ msec.}$

OFF delay: $\leq 2.0 \text{ msec.}$

Max. Frequency: 100 Hz

Minimum ON/OFF pulse requirements: 5 msec.

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: 80 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 (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

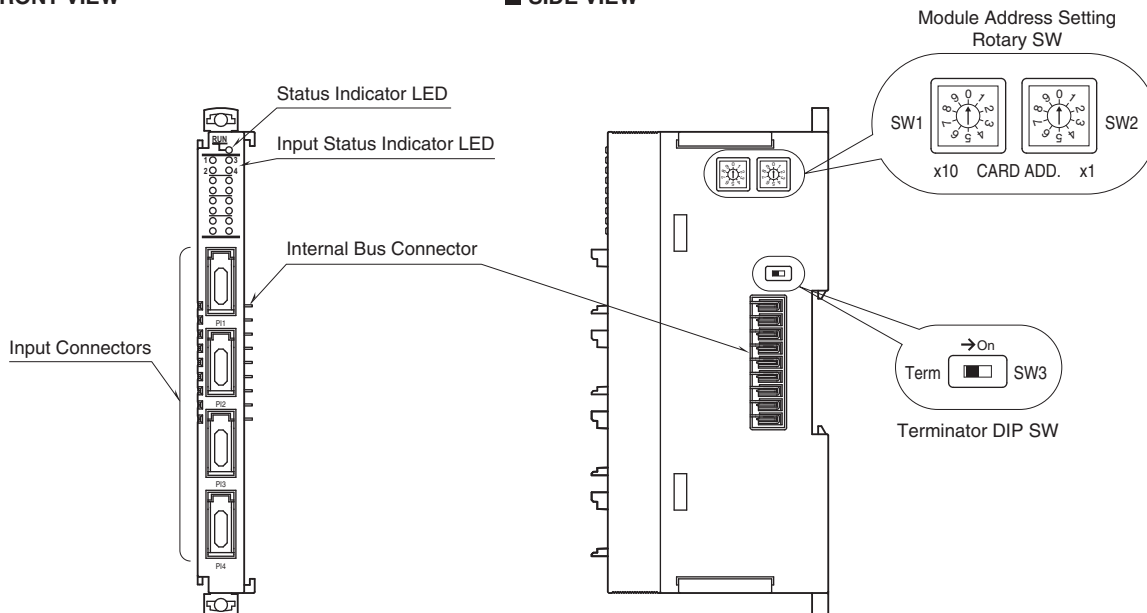
EMS EN 61000-6-2

RoHS Directive

EXTERNAL VIEW

■ FRONT VIEW

■ SIDE VIEW



OPERATING MODE SETTING

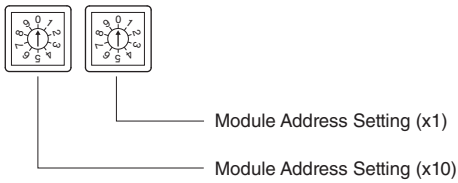
(*) Factory setting

■ **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.

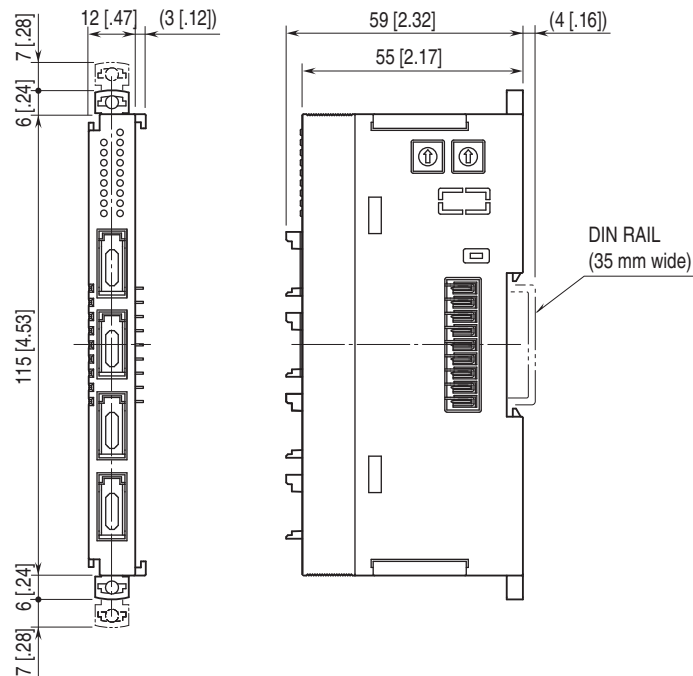
(Factory setting: 0)



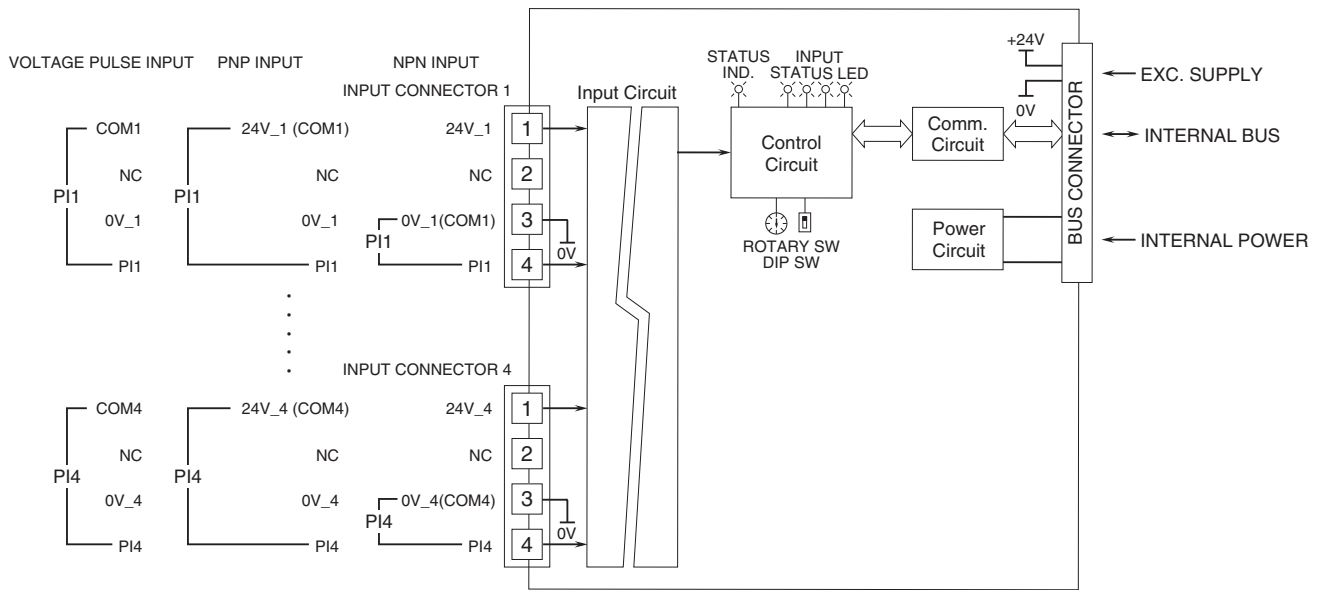
■ **Terminator DIP SW**

TERMINATOR DIP SW	SW3
Without (*)	OFF
With	ON

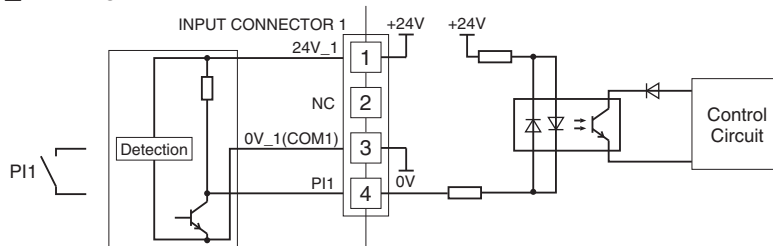
EXTERNAL DIMENSIONS unit: mm [inch]



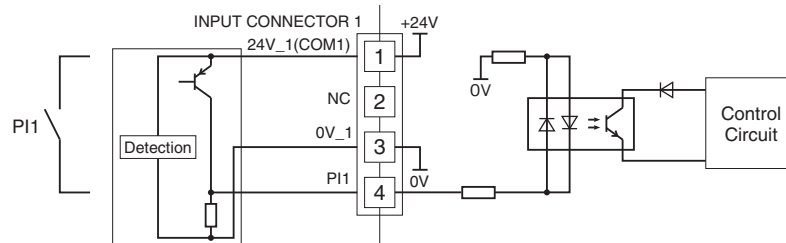
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



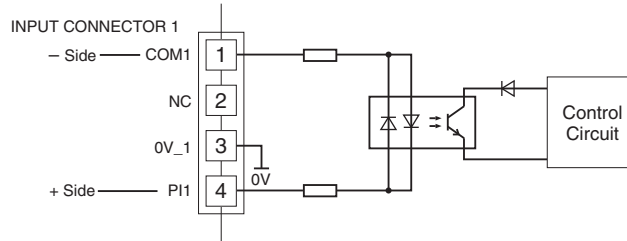
■ NPN INPUT



■ PNP INPUT



■ VOLTAGE PULSE INPUT



Specifications are subject to change without notice.