

## Remote I/O R8 Series

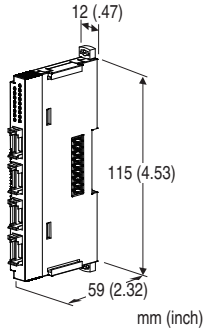
manual.

### 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]

#### ORDERING INFORMATION

- Code number: R8-PA4[1]
- Specify a code from below for [1].  
(e.g. R8-PA4A)

#### [1] INPUT

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

#### GENERAL SPECIFICATIONS

##### Connection

- **Input:** 4-pin e-CON connector  
PWB connector XN2D-1474-S002 (Omron)  
Recommended cable connector XN2A-1470 (Omron)  
Applicable wire size 0.08 mm<sup>2</sup> (AWG28) - 0.5 mm<sup>2</sup> (AWG20)  
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

#### 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:**  $\leq 4$  V (input terminal to COM) /  $\leq 900 \Omega$

**OFF voltage / OFF resistance:**  $\geq 16$  V (input terminal to COM) /  $\geq 10$  k $\Omega$

• **Voltage pulse input**

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

**ON voltage / ON current:**  $\geq 16$  V DC (input terminal to COM) /  $\geq 3.7$  mA

**OFF voltage / OFF current:**  $\leq 5$  V DC (input terminal to COM) /  $\leq 1$  mA

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

**Input resistance:** Approx. 4.4 k $\Omega$

**ON delay:**  $\leq 2.0$  msec.

**OFF delay:**  $\leq 2.0$  msec.

**Max. Frequency:** 100 Hz

**Minimum ON/OFF pulse requirements:** 5 ms

**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 terminal):** Rated current 0.1A DC per channel

(rated current 3 A for internal fuse (slow blow fuse i<sup>2</sup>t (A<sup>2</sup>sec) max. 0.31)

Total 0.4 A DC

**Insulation resistance:**  $\geq 100$  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

CE conformity:

EMC Directive (2004/108/EC)

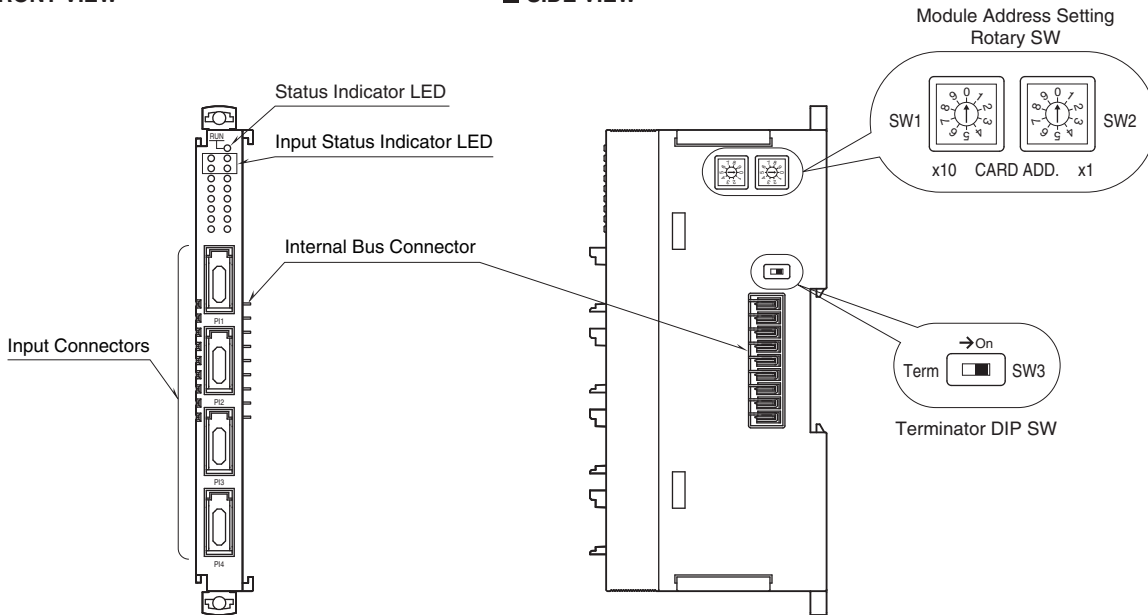
EMI EN 61000-6-4: 2007

EMS EN 61000-6-2: 2005

## EXTERNAL VIEW

■ FRONT VIEW

■ SIDE VIEW



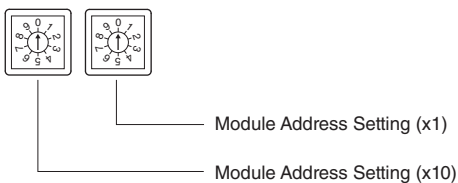
## OPERATING MODE SETTING

(\*) 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 31.

(Factory setting: 0)

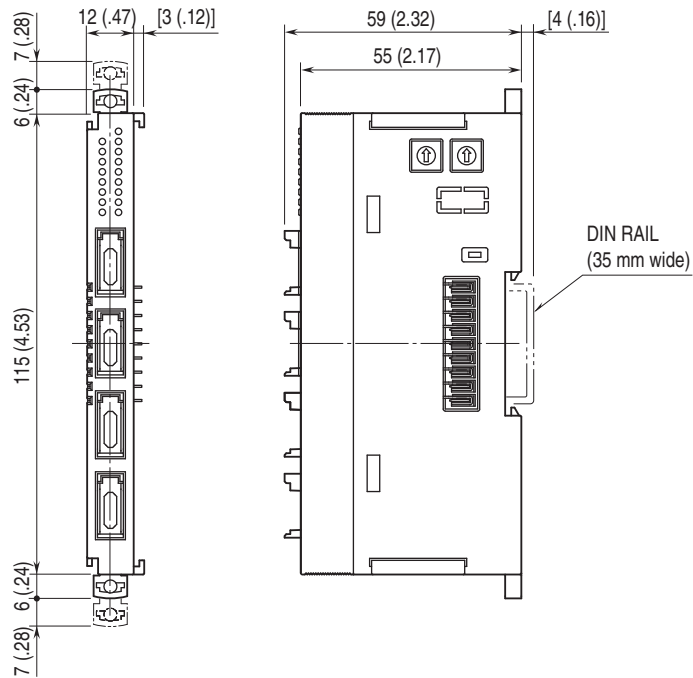


### ■ Terminator DIP SW

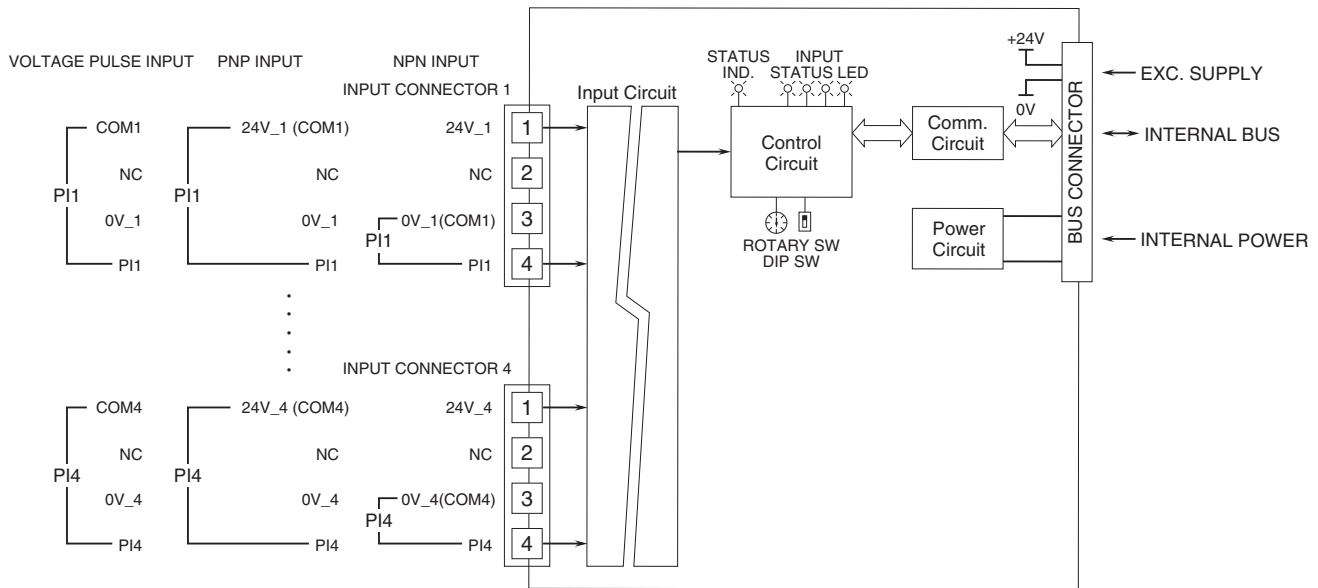
Terminator switch	SW3
Without (*)	OFF
With	ON



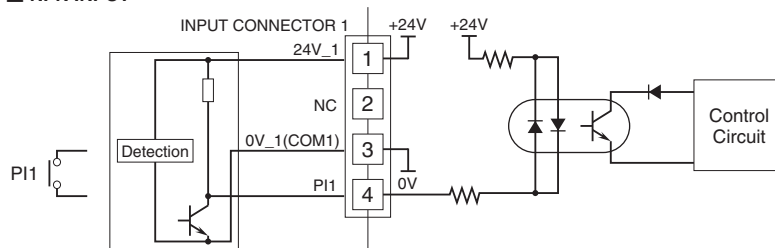
**DIMENSIONS unit: mm (inch)**



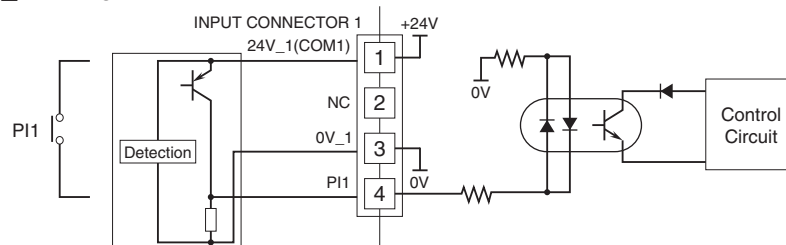
## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



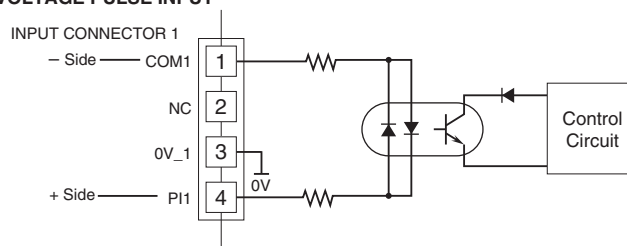
### ■ NPN INPUT



### ■ PNP INPUT



### ■ VOLTAGE PULSE INPUT



Specifications are subject to change without notice.