

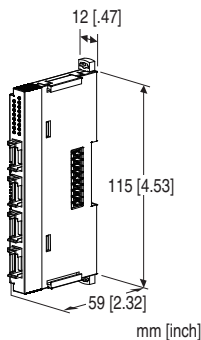
## Remote I/O R8 Series

### DC VOLTAGE OUTPUT MODULE

(4 points, non-isolated)

#### Functions & Features

- 4 channels for DC voltage output, compact size remote I/O module
- Output range adjustment with DIP switch or PC configurator



### MODEL: R8-YV4N[1]

#### ORDERING INFORMATION

- Code number: R8-YV4N[1]
- Specify a code from below for [1].  
(e.g. R8-YV4N/UL/Q)
- Specify the specification for option code /Q  
(e.g. /C01)

#### [1] OPTIONS (multiple selections)

Standards & Approvals

**blank:** CE marking

/UL: UL approval, CE marking

Other Options

**blank:** none

/Q: Option other than the above (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

- **Output:** 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:** Output to exc. supply to internal bus or internal power

**Output range:** Selectable with the side DIP SW

**Module address:** With rotary switch

**Output at the loss of communication:** Selectable with the side DIP SW

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

**Configuration mode:** With DIP switches on the side panel

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

**Output status indicators:** Red LED; Refer to the instruction manual.

#### OUTPUT

**Output range:** Selectable between -10 - +10 V DC

**Operational range:** -5 - +105 % (in percentage of output range)

**Load resistance:** ≥ 5 kΩ

#### INSTALLATION

**Max. current consumption:** 160 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

**Conversion accuracy (in percentage of output range)**

±0.05 % (@ output range -10 - +10 V)

Conversion accuracy is inversely proportional to output span.

Conversion accuracy computation example:

When output range is 1 - 5 V: conversion accuracy =  
output span standard value (20 V) ÷ output span (4 V) ×  
0.05(%) = 0.25 (%).

Output span standard value is the same as the span at  
output range -10 - +10 V DC.

**Conversion rate:** 4 msec.

**Output circuit time constant:** ≤ 5 msec. (0 → 90 %)

**Data range:** 0 - 10000 of the output range

**Data allocation:** 2

**Module addresses in use:** 2

**Temp. coefficient:** ±0.015 %/°C (±0.008 %/°F)

**Insulation resistance:** ≥ 100 MΩ with 500 V DC

**Dielectric strength:**

1500 V AC @ 1 minute (output to 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

**Approval:**

UL/C-UL general safety requirements

(UL 61010-1, CAN/CSA-C22.2 No.61010-1-12)

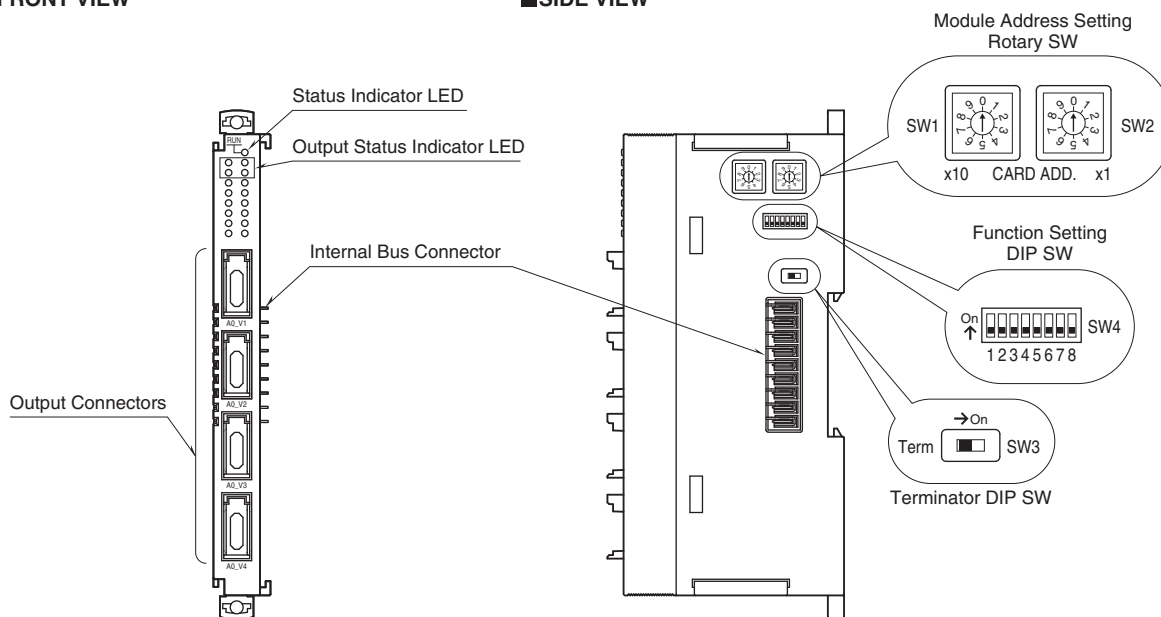
(UL 61010-2-201, CAN/CSA-C22.2 No.61010-2-201)

Note: Use the Power/Network module for UL approval when using as conformity with UL/C-UL.

## EXTERNAL VIEW

■ FRONT VIEW

■ SIDE VIEW



## OPERATING MODE SETTING

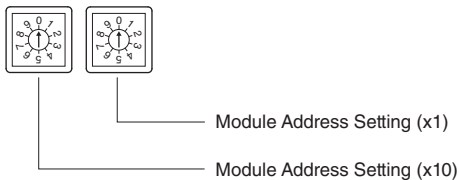
(\*) Factory setting

Caution ! - SW4-3 through 4-6 are unused. Be sure to turn off unused ones.

### ■ Module Address

The left switch determines the tenth place digit, while the right one does the ones place digit of the module address. Address is selected between 0 to 30.

(Factory setting: 0)



### ■ Range

Same range for all channels. Use PC Configurator to set independent ranges per channel.

| OUTPUT RANGE       | SW4 |     |
|--------------------|-----|-----|
|                    | 1   | 2   |
| -10 – +10 V DC (*) | OFF | OFF |
| 0 – 10 V DC        | ON  | OFF |
| 0 – 5 V DC         | OFF | ON  |
| 1 – 5 V DC         | ON  | ON  |

### ■ Output at The Loss of Communication

| OUTPUT AT THE LOSS OF COMMUNICATION                       | SW4 |
|-----------------------------------------------------------|-----|
|                                                           | 7   |
| Output Hold (*)<br>(last data correctly received is hold) | OFF |
| Stop output                                               | ON  |

NOTE: For Stop output, output fixed at -5% when configuration mode is DIP switch setting.

Output fixed at scaling value at the loss of communication when configuration mode is PC.

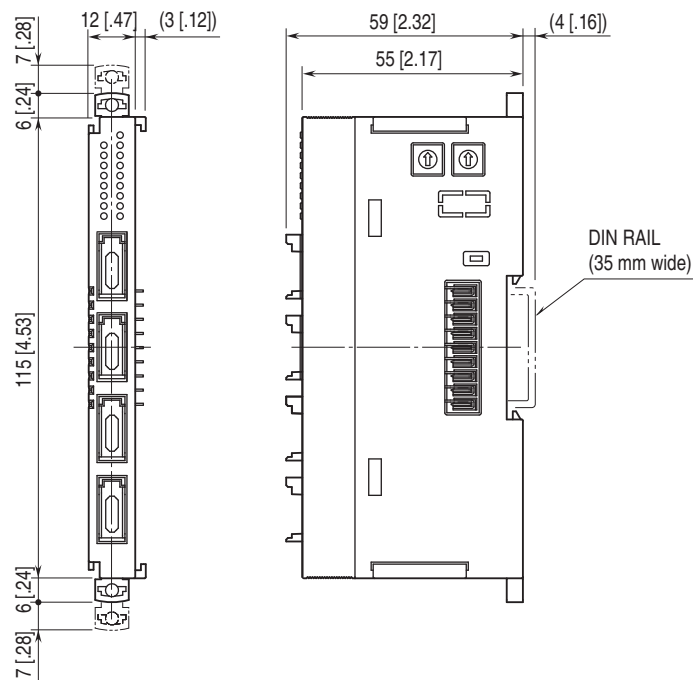
### ■ Configuration Mode

| CONFIGURATION MODE                | SW4 |
|-----------------------------------|-----|
|                                   | 8   |
| DIP switch setting (*)            | OFF |
| PC Configurator and communication | ON  |

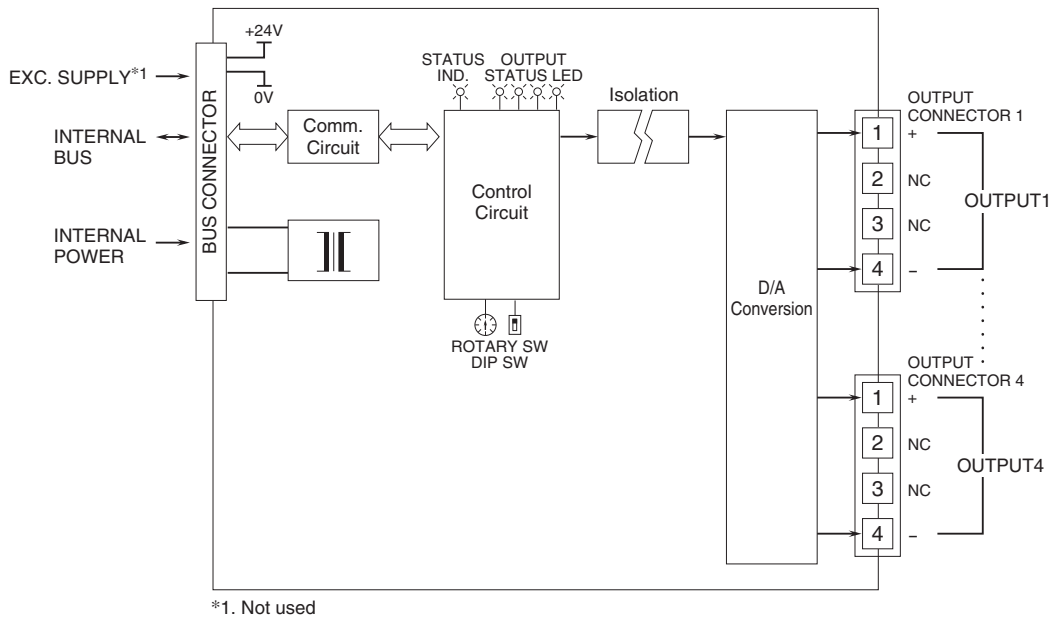
### ■ Terminator DIP SW

| TERMINATOR DIP SW | SW3 |
|-------------------|-----|
| Without (*)       | OFF |
| With              | ON  |

## EXTERNAL DIMENSIONS unit: mm [inch]



## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.