

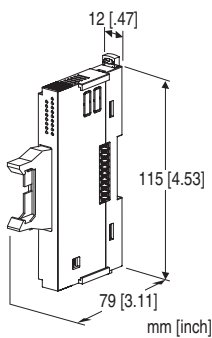
Remote I/O R8 Series

DC VOLTAGE OUTPUT MODULE

(4 points, non-isolated)

Functions & Features

- 4 channels for DC voltage input, compact size remote I/O module
- Output range adjustment with DIP switch or PC configurator
- 20 pin MIL connector



MODEL: R8-YVM4N[1]

ORDERING INFORMATION

- Code number: R8-YVM4N[1]
- Specify a code from below for [1].
(e.g. R8-YVM4N/Q)
- Specify the specification for option code /Q
(e.g. /C01)

[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.

GENERAL SPECIFICATIONS

Connection

- **Output:** 20-pin MIL connector

Unit side connector (mounted)

Recommended socket XG5N-201 (Omron)

Recommended contact XG5W-0231 (Omron)

Applicable wire size AWG22, number of conductor

17, diameter of conductor 0.16 mm (The socket and

contact are 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: $\geq 5 \text{ k}\Omega$

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: 70 g (2.5 oz)

PERFORMANCE

Conversion accuracy (in percentage of output range)

$\pm 0.1 \%$ (@ 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) \div output span (4 V) \times
0.1(%) = 0.5 (%).

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: $\leq 5 \text{ msec.}$ (0 \rightarrow 90 %)

Data range: 0 - 10000 of the output range

Data allocation: 2

Module addresses in use: 2

Temp. coefficient: $\pm 0.015 \text{ } \%/^{\circ}\text{C}$ ($\pm 0.008 \text{ } \%/^{\circ}\text{F}$)

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

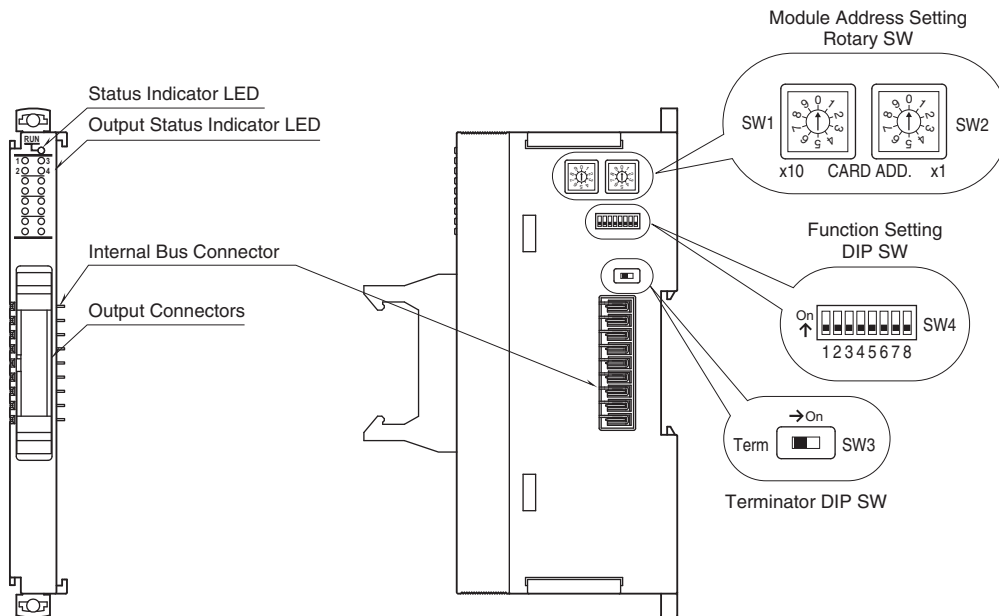
EMS EN 61000-6-2

RoHS Directive

EXTERNAL VIEW

■ FRONT VIEW

■ SIDE VIEW



OPERATING MODE SETTING

(*) Factory setting

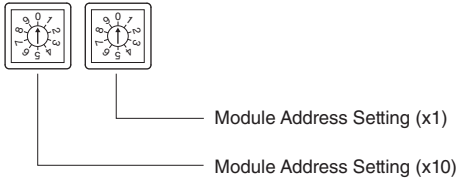
Note: Be sure to set unused SW4-3 through 4-6 to OFF.

■ 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
Output Hold (*) (last data correctly received is hold)	7
Stop output	OFF
	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.

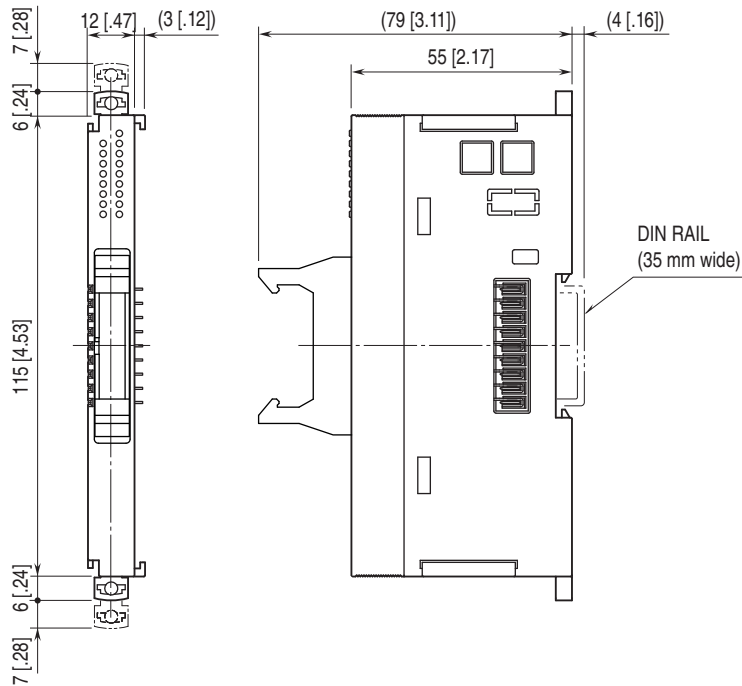
■ Configuration Mode

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

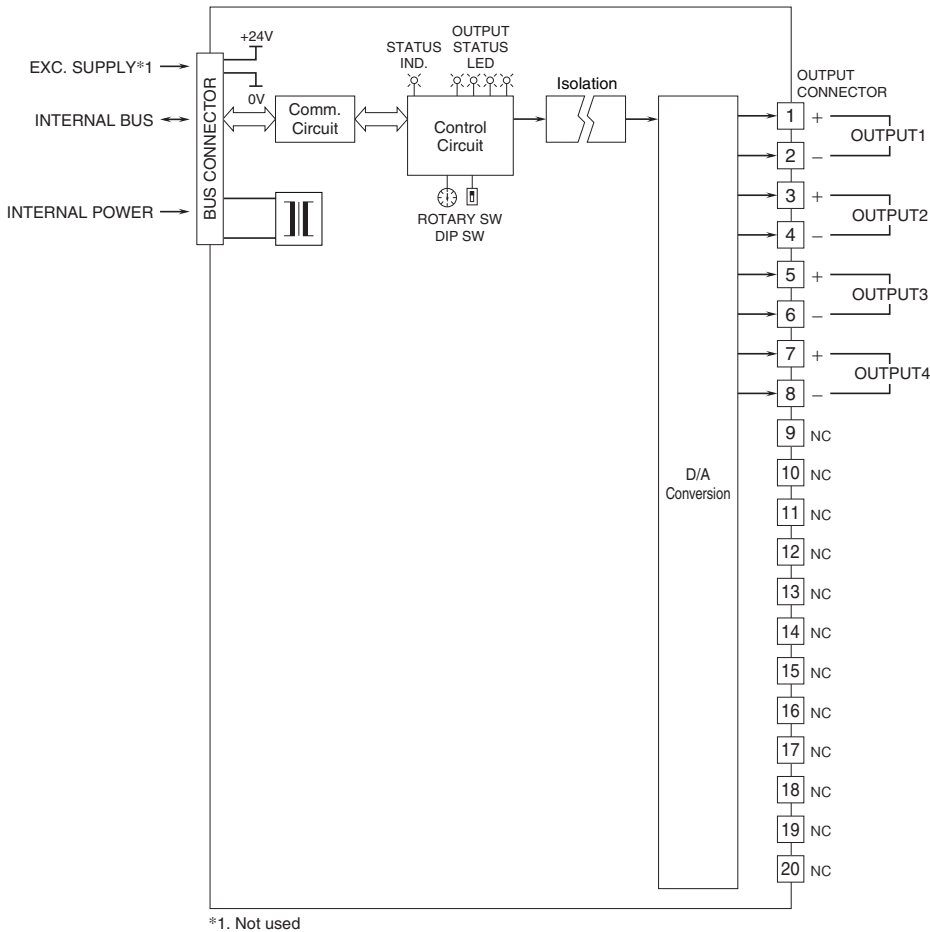
■ Terminator DIP SW

TERMINATOR DIP SW	SW3
Without (*)	OFF
With	ON

EXTERNAL DIMENSIONS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*1. Not used



Specifications are subject to change without notice.