

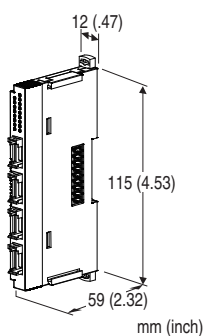
Remote I/O R8 Series

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



MODEL: R8-YV4N

ORDERING INFORMATION

- Code number: R8-YV4N

RELATED PRODUCTS

- PC configurator software (model: R8CFG)
Downloadable at M-System's web site.
A dedicated cable is required to connect the module to the PC. Please refer to the internet software download site or the users manual for the PC configurator for applicable cable types.

GENERAL SPECIFICATIONS

Connection

- **Output:** 4-pin e-CON connector
PWB connector XN2D-1474-S002 (Omron)
Recommended cable connector XN2A-1470 (Omron)
Applicable wire size 0.08 mm² (AWG28) - 0.5 mm² (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:** Output to 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.

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: 60 g (2.12 oz)

PERFORMANCE

Conversion accuracy (in percentage of output range)

$\pm 0.05 \%$ (@ 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) $\div$ output span (4 V) $\times$
 $0.05(\%) = 0.25(\%)$.

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

Data range: 0 - 10000 of the output range

Data allocation: 2

Module addresses in use: 2

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

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

CE conformity:

EMC Directive (2004/108/EC)

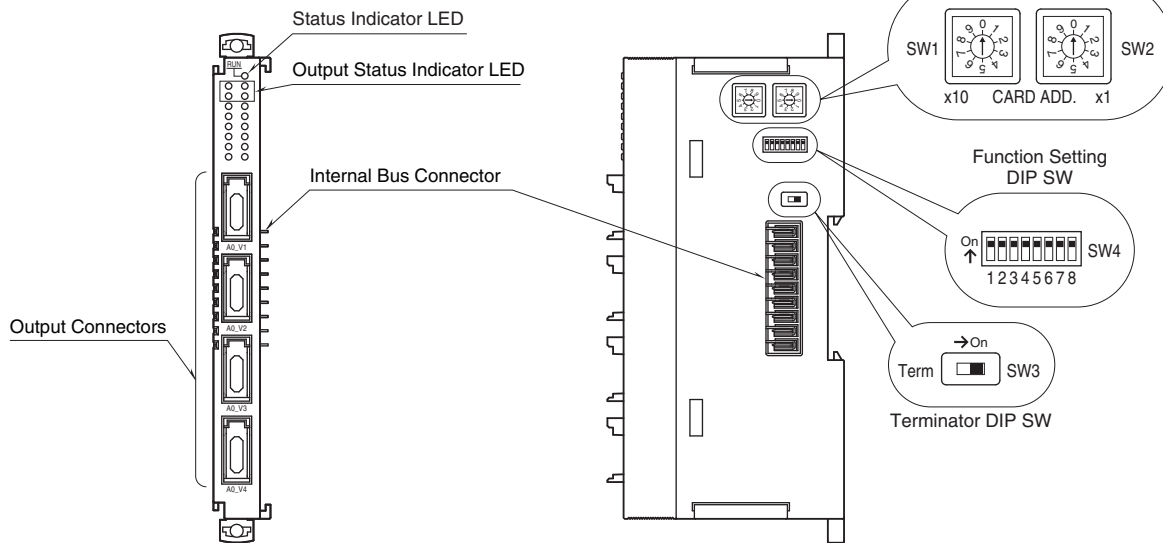
EMI EN 61000-6-4: 2007

EMS EN 61000-6-2: 2005

EXTERNAL VIEW

■ FRONT VIEW

■ SIDE VIEW



OPERATING MODE SETTING

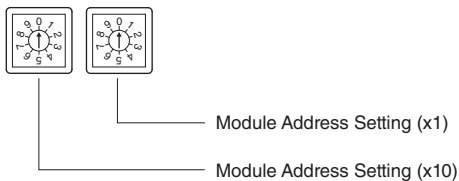
(*) Factory setting

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 switch does the ones place digit of the address. Address is selected between 0 to 31.

(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 (*) (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.

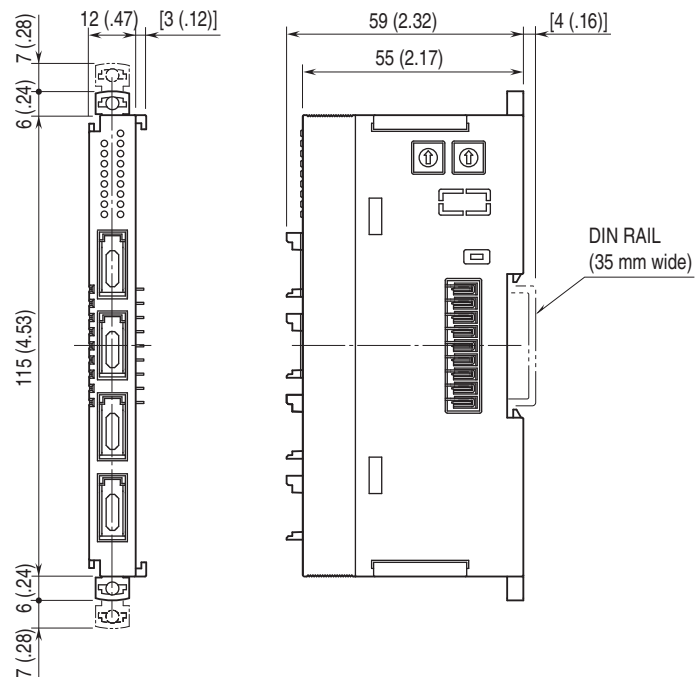
■ Configuration Mode

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

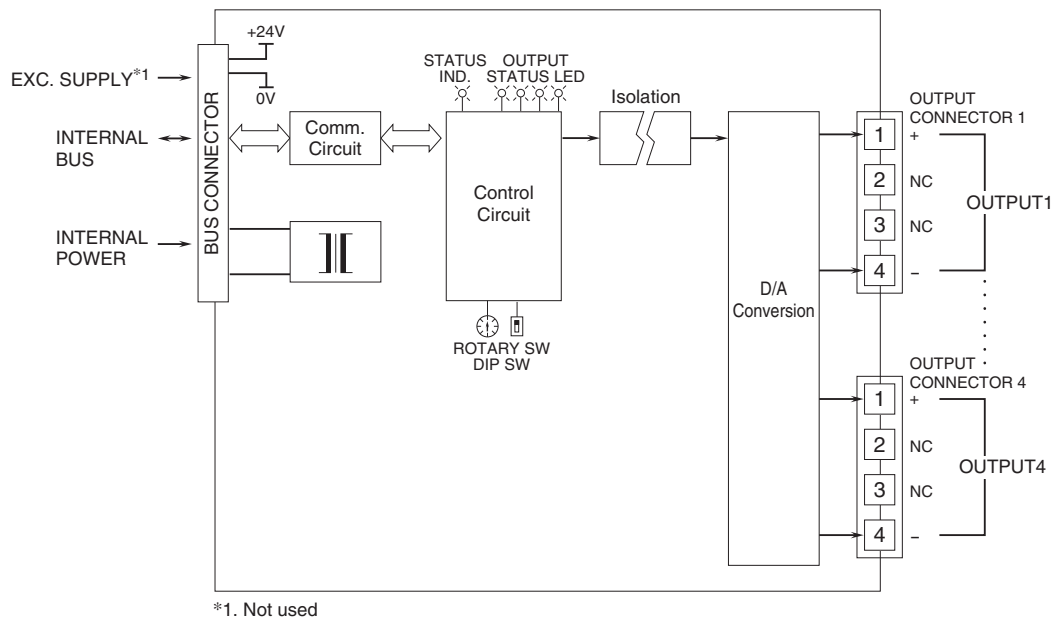
■ Terminator DIP SW

Terminator switch	SW3
	OFF
Without (*)	OFF
With	ON

DIMENSIONS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.