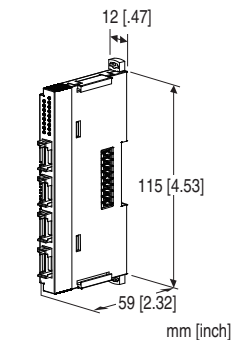## Remote I/O R8 Series

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

12 [.47]

115 [4.53]

59 [2.32]

mm [inch]

CE

c **UL** US

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^2 (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

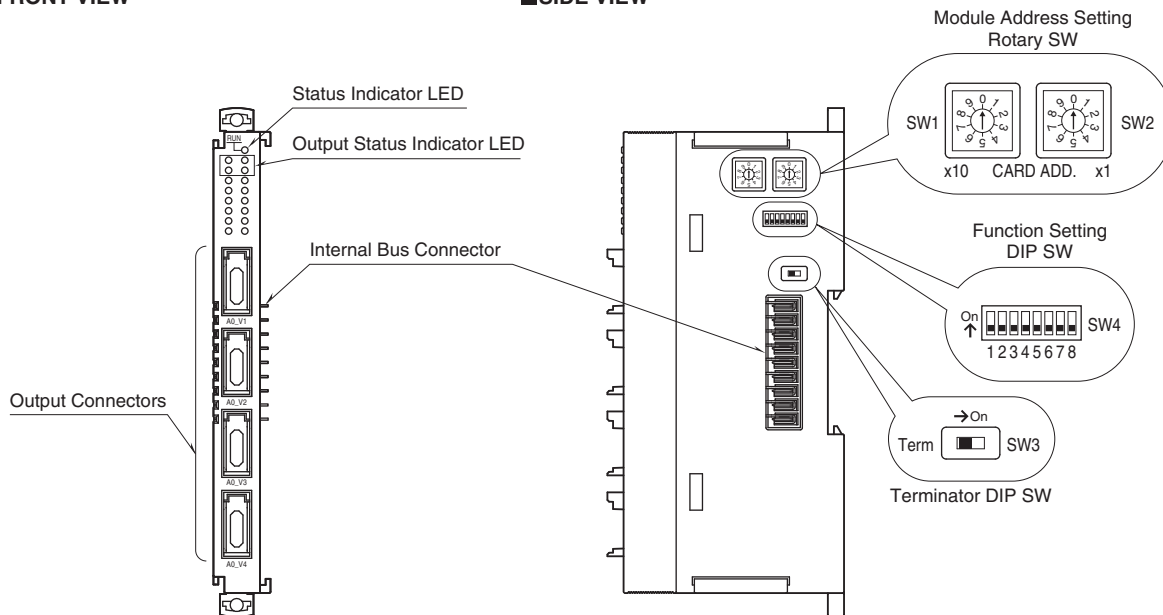**Approval**:

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)

EXTERNAL VIEW

■**FRONT VIEW**   ■**SIDE VIEW**

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www.mgco.jp
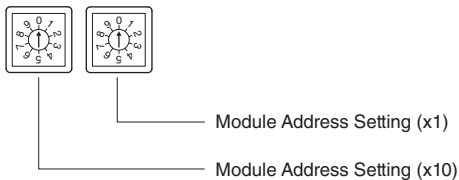
OPERATING MODE SETTING

(*) 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)

Module Address Setting (x1)

Module Address Setting (x10)

■ 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 rerceived 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.
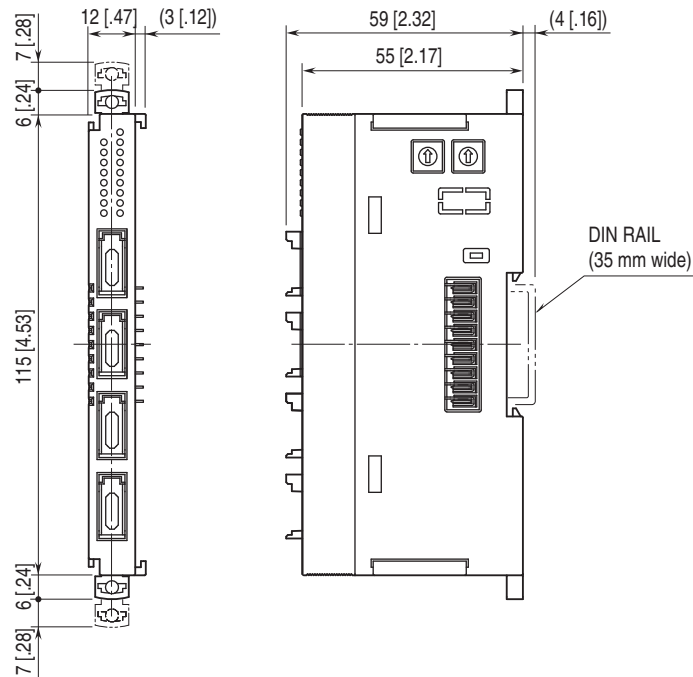
■ Configuration Mode

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

*1. Not used
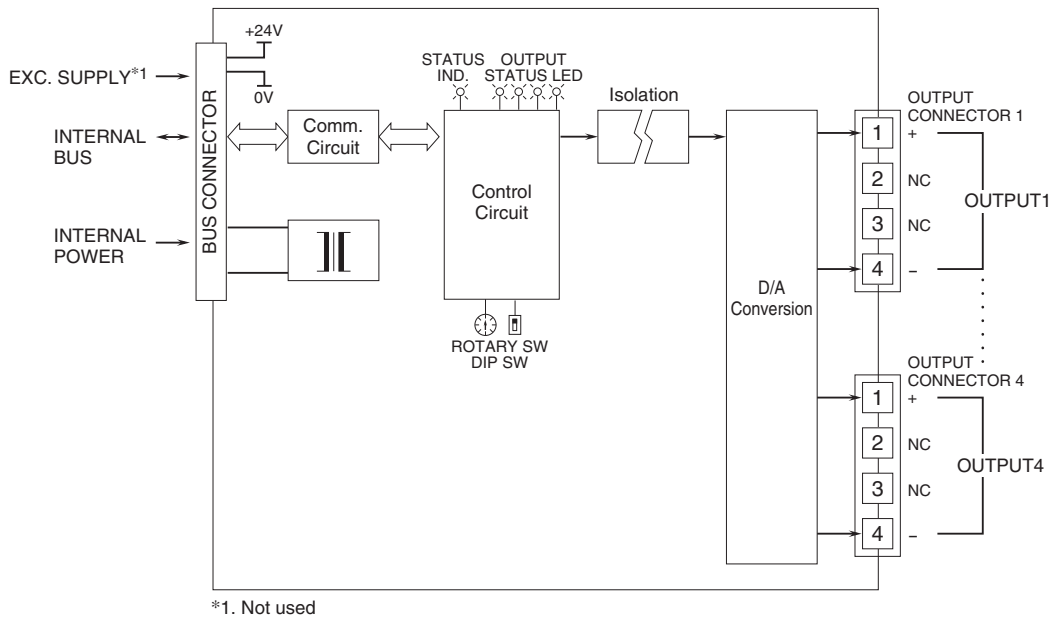
⚠ Specifications are subject to change without notice.

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