

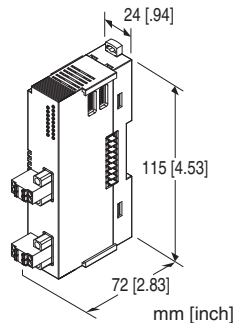
Remote I/O R8 Series

DC CURRENT OUTPUT MODULE

(2 points, isolated, separable tension clamp terminal)

Functions & Features

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



MODEL: R8-YST2[1]

ORDERING INFORMATION

- Code number: R8-YST2[1]
- Specify a code from below for [1].
(e.g. R8-YST2/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:** Separable tension clamp terminal
- **Excitation supply, internal bus:**
Connected to internal bus connector

- **Internal power:** Via bus connector

Isolation: Output 1 to output 2 to exc. supply to internal bus or internal power

Output range: Selectable with the side DIP SW

Module address: With DIP 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 0 – 20mA DC

Operational range: -5 – +105 % (in percentage of output range) ≤ 0 mA DC

Load resistance: ≤ 500Ω

INSTALLATION

Max. current consumption: 80 mA

Exc. supply current consumption: 60 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: 110 g (0.24 lb)

PERFORMANCE

Conversion accuracy (in percentage of output range)

±0.08 % (@ output range 0 - 20 mA)

Conversion accuracy is inversely proportional to output span.

Conversion accuracy computation example:

When output range is 4 - 20 mA: conversion accuracy =
output span standard value (20 mA) ÷ output span (16 mA)
× 0.08(%) = 0.1 (%).

output span standard value is the same as the span at
output range 0 - 20 mA DC.

Conversion rate: 2 msec.

Output circuit time constant: ≤ 0.5 msec. (0 → 90 %)

Data range: 0 – 10000 of the output range

Data allocation: 2

Module addresses in use: 1

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

Insulation resistance: ≥ 100 MΩ with 500 V DC

Dielectric strength:

1000 V AC @ 1 minute (output 1 to output 2 to exc. supply
to internal bus or internal power to ground)

STANDARDS & APPROVALS

EU conformity:

EMC Directive

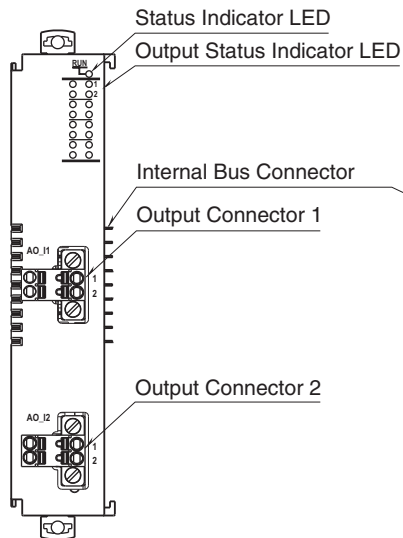
EMI EN 61000-6-4

EMS EN 61000-6-2

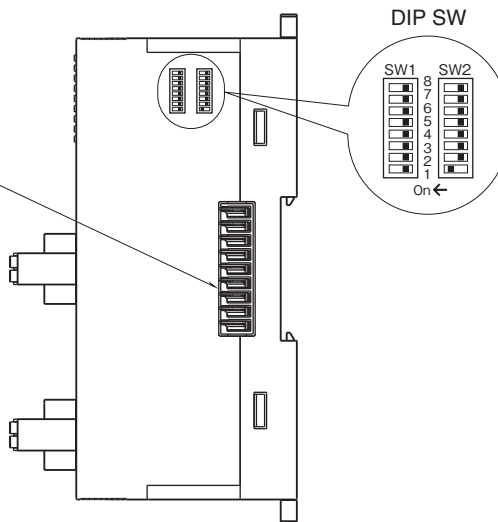
RoHS Directive

EXTERNAL VIEW

■ FRONT VIEW



■ RIGHT VIEW



WIRING

• Output connector

Unit side connector: MCV1,5/2-GF-3,5 (Phoenix Contact)

Cable side connector: TFC1,5/2-STF-3,5 (Phoenix Contact)
(included in the package)

Applicable wire size: 0.2 – 1.5 mm²; stripped length 10 mm

Recommended solderless terminal

- AI0,25–10YE 0.25 mm² (Phoenix Contact)
- AI0,34–10TQ 0.34 mm² (Phoenix Contact)
- AI0,5–10WH 0.5 mm² (Phoenix Contact)
- AI0,75–10GY 0.75 mm² (Phoenix Contact)
- A1–10 1.0 mm² (Phoenix Contact)
- A1,5–10 1.5 mm² (Phoenix Contact)

OPERATING MODE SETTING

(*) Factory setting

Caution ! - SW2-2, 2-3, 2-4, 2-7 are unused. Be sure to turn off unused ones.

■ Module Address

SW1-1 through 1-4 determine the tenth place digit, while SW1-5 through 1-8 do the ones place digit of the module address.

Address is selected between 0 to 31.

(Factory setting: 0)

MODULE ADDRESS	SW1				
	×10	1	2	3	4
	×1	5	6	7	8
0		OFF	OFF	OFF	OFF
1		OFF	OFF	OFF	ON
2		OFF	OFF	ON	OFF
3		OFF	OFF	ON	ON
4		OFF	ON	OFF	OFF
5		OFF	ON	OFF	ON
6		OFF	ON	ON	OFF
7		OFF	ON	ON	ON
8		ON	OFF	OFF	OFF
9		ON	OFF	OFF	ON

■ Range

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

OUTPUT RANGE	SW2
	1
0 – 20 mA DC	OFF
4 – 20 mA DC (*)	ON

■ Output at the Loss of Communication

Same output for all channels.

OUTPUT AT THE LOSS OF COMMUNICATION	SW2
	5
Output Hold (*) (last data correctly received is hold)	OFF
Stop output	ON

NOTE: For Stop output, output fixed at -5%, 0 mA min. when configuration mode is DIP switch setting.

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

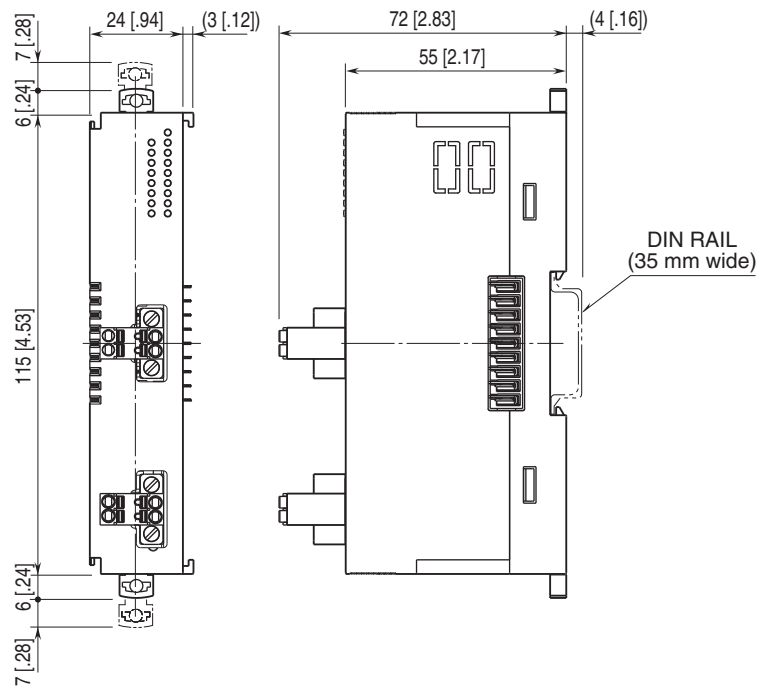
■ Terminator DIP SW

TERMINATOR DIP SW	SW2
	6
Without (*)	OFF
With	ON

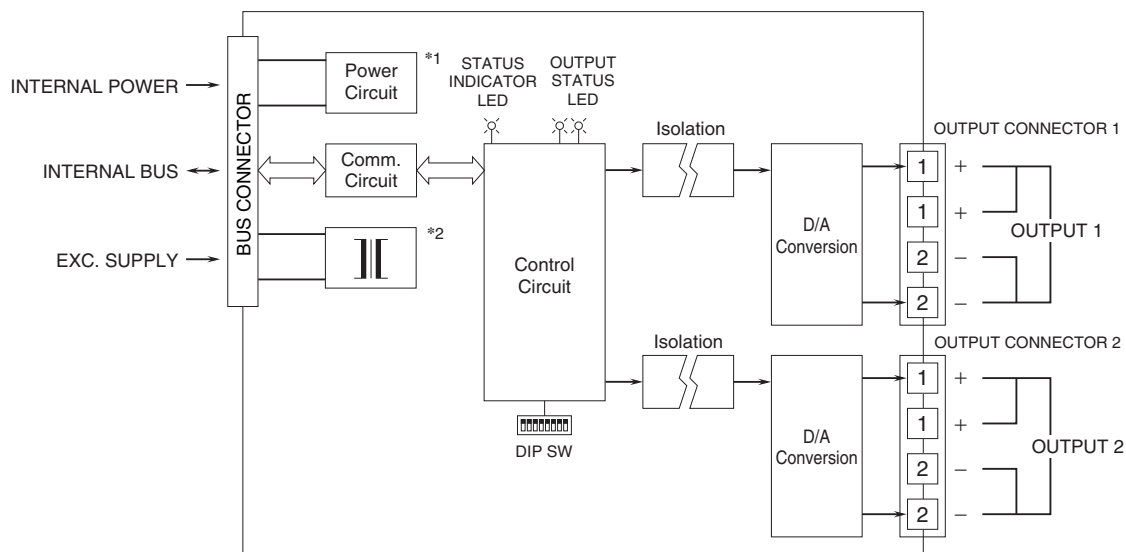
■ Configuration Mode

CONFIGURATION MODE	SW2
	8
DIP switch setting (*)	OFF
PC Configurator and communication	ON

EXTERNAL DIMENSIONS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*1. The power supply for control circuit, which is non-isolated from internal power.

*2. The power supply for output 1 and output 2, which is isolated from the Exc. supply and the internal power.



Specifications are subject to change without notice.