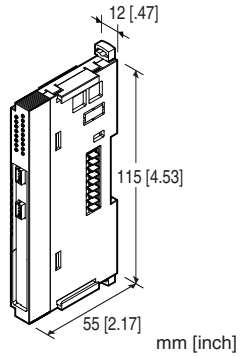
Remote I/O R8 Series

DC CURRENT OUTPUT MODULE

(built-in excitation, 2 points, non-isolated)

Functions & Features

• 2 channels for DC current output, compact size remote I/O module
• Output range adjustment with PC configurator
• Excitation supply for sensor available from output connector



MODEL: R8Y–YSZH2NJ[1]

ORDERING INFORMATION

• Code number: R8Y-YSZH2NJ[1]
Specify a code from below for [1].
(e.g. R8Y-YSZH2NJ/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)
• ZH connector cable (model: ZHCL)
The use of this cable is not mandatory.
• PC configurator software (model: R8CFG)
Downloadable at our web site.

GENERAL SPECIFICATIONS

Connection
• **Output**: 4-pin ZH connector
Unit side connector: S4B-ZR (J.S.T. Mfg. Co., Ltd.)
Recommended socket: ZHR-4 (J.S.T. Mfg. Co., Ltd.)
Recommended contact: SZH-002T-P0.5 (J.S.T. Mfg. Co., Ltd.)
Applicable wire size: AWG28 - 26
(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 or exc. supply to internal bus or internal power
Output range: Selectable with PC configurator software
Module address: With DIP switch
Output at the loss of communication: Selectable with PC configurator software
Terminating resistor: Built-in (DIP Switch, default: disable)
Status indicator LED: Bi-color (red/green) LED; Refer to the instruction manual.

OUTPUT SPECIFICATIONS

Output range: Selectable between 0 – 20 mA DC
Factory default: 4 - 20 mA DC
Operational range: -5 – +105 % (in percentage of output range) ≥ 0 mA DC
Load resistance: ≤ 500 Ω

INSTALLATION

Max. current consumption: 35 mA
Exc. supply: 24 V DC ±10%
Exc. supply current consumption: 50 mA
(Power supply for output circuit is generated from exc. supply)
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)
±0.08 % (@ 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

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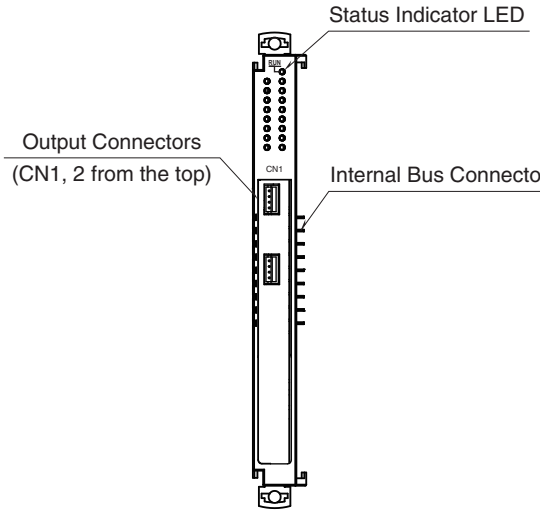
output range 0 - 20 mA DC.
Conversion rate: 2 msec.
Output circuit time constant: ≤ 200 msec. (0 → 90 %)
Data range: 0 – 10000 of the output range
Data allocation: 2
Module addresses in use: 1
Power output (between 1 to 4 pin of output connector):
Rated current 0.75 A DC per channel (rated current 3 A for internal fuse (slow blow fuse)); Total: 1.5 A DC
Temp. coefficient: ±0.015 %/°C (±0.008 %/°F)
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength:
1500 V AC @ 1 minute (output or exc. supply to internal bus or internal power to ground)

STANDARDS & APPROVALS

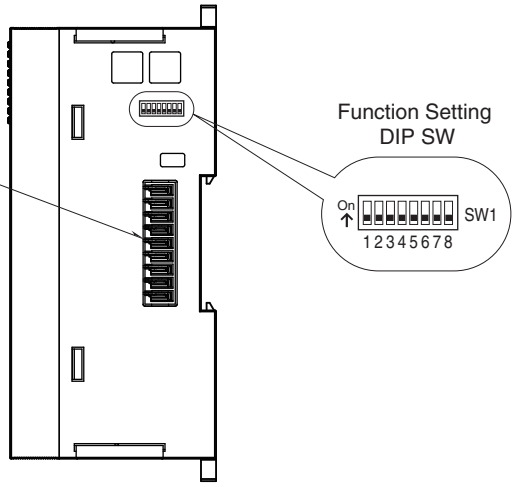
EU conformity:
EMC Directive
EMI EN 61000-6-4
EMS EN 61000-6-2
RoHS Directive

EXTERNAL VIEW

■ **FRONT VIEW**



■ **SIDE VIEW**



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OPERATING MODE SETTING

(*) Factory default setting

Note: Be sure to set unused SW1-7 to OFF.

■ MODULE ADDRESS (SW1)

SW1-1 and SW1-2 determine the tenth place digit, while SW1-3 through 1-6 do the ones place digit of the module address.

Address is selected between 0 to 31.

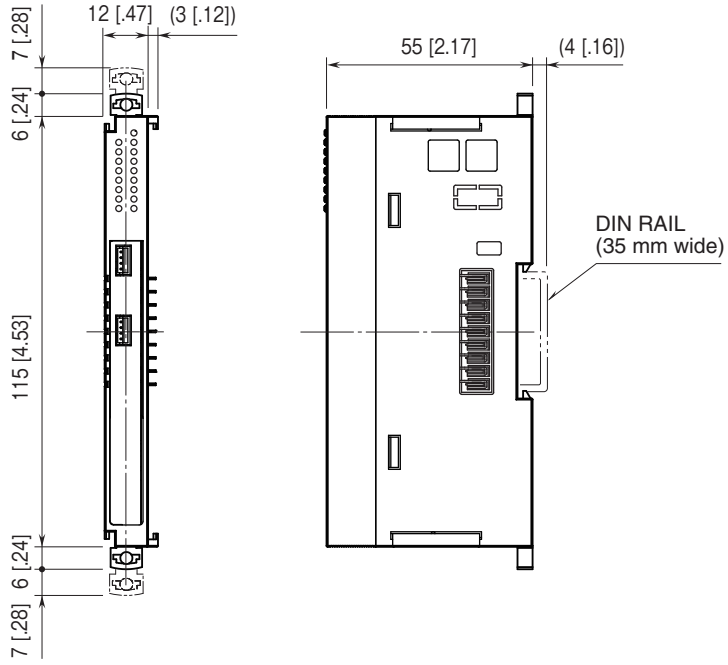
(Factory setting: 0)

MODULE ADDRESS	SW1				
	×10			1	2
	×1	3	4	5	6
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

■ TERMINATOR (SW1)

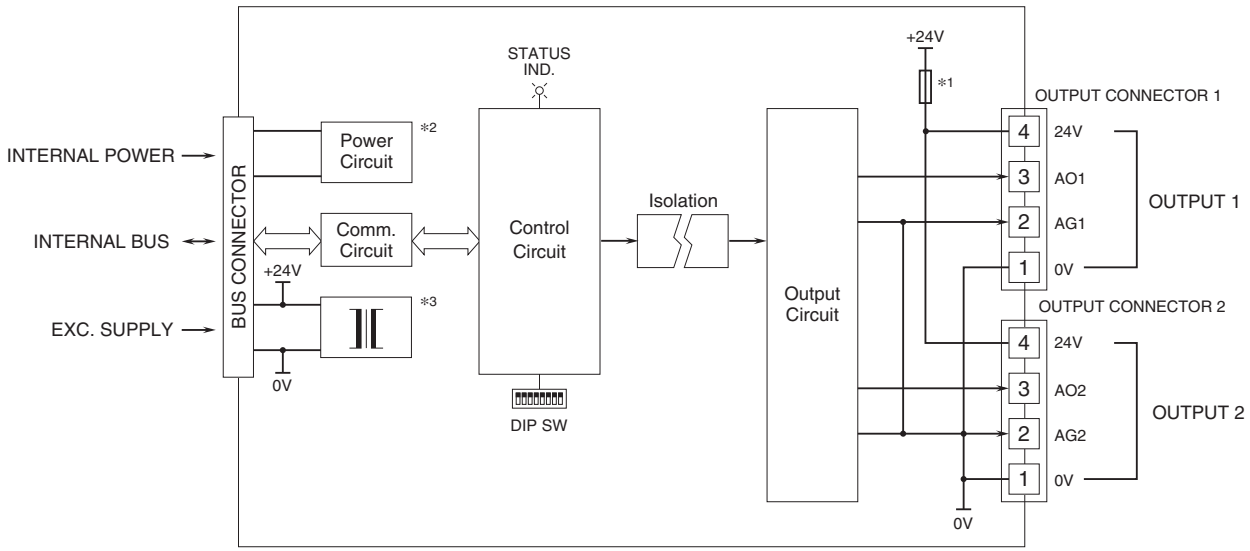
TERMINATOR	SW1-8
WIthout (*)	OFF
With	ON

EXTERNAL DIMENSIONS unit: mm [inch]



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SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*1. Fuse is not replaceable.
*2. The power supply for control circuit, which is non-isolated from internal power.
*3. The power supply for output, which is non-isolated from the exc. supply.

⚠ Specifications are subject to change without notice.

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