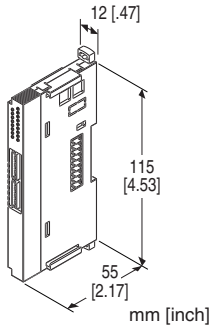
## Remote I/O R8 Series

## DC VOLTAGE/CURRENT INPUT MODULE

(built-in excitation, 8 points, non-isolated)

**Functions & Features**

• DC current input and DC voltage input compact size remote I/O module
• Switching between current input and voltage input with PC configurator (model: R8CFG)
• Accepts direct input from power output as sensor power and outputs from terminals
• 20 pins (10 pins × 2) ZH connector (J.S.T. Mfg. Co., Ltd.)




## MODEL: R8Y-FSZH8N[1]

## ORDERING INFORMATION

• Code number: R8Y-FSZH8N[1]
Specify a code from below for [1].
(e.g. R8Y-FSZH8N/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**
• **Input**: 10-pin ZH connector
**Unit side connector:** S10B-ZR (J.S.T. Mfg. Co., Ltd.)
**Recommended socket:** ZHR-10 (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**: Input or exc. supply to internal bus or internal power
**Module address**: With DIP switch
**Terminating resistor**: Built-in (DIP Switch, default: disable)
**Status indicator LED**: Bi-color (red/green) LED; Refer to the instruction manual.

## INPUT SPECIFICATIONS

■ **DC Voltage**:
**Input range**: -10 – +10 V DC
**Input setting value**: Available to set in the input range
**Operational range**: -5 - +105 % (% of input setting value)
**Input resistance:** ≥ 1 MΩ
■ **DC Current**:
**Input range**: -20 – +20 mA DC
**Input setting value**: Available to set in the input range
**Operational range**: -5 - +105 % (% of input setting value)
**Input resistance**: 31 Ω
Factory default (Input type and input setting value):
Voltage input, input range -10 - +10 V DC for all 8 points.

## INSTALLATION

**Max. current consumption**: 80 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 input range)**
**Voltage input**:±0.05 %
**Current input**:±0.1 %
Conversion accuracy is inversely proportional to input span.
**Conversion rate**: 24 msec.
**Input circuit time constant**: Approx. 1 msec.
**Data range**: 0 – 10000 of the input range
(Scaling of converted data is configurable with the configurator software)



MG CO., LTD.
www.mgco.jp

**Data allocation**: 2
**Module addresses in use**: 4
**Power output (input 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
(input or exc. supply to internal bus or internal power to ground)

**CALCULATION EXAMPLES OF CONVERSION ACCURACY**

■ **Voltage input:**
For input setting value 1 - 5 V DC
Conversion accuracy = Input range span (20 V) ÷ input setting value span (4 V) × 0.05 (%) = 0.25 (%)

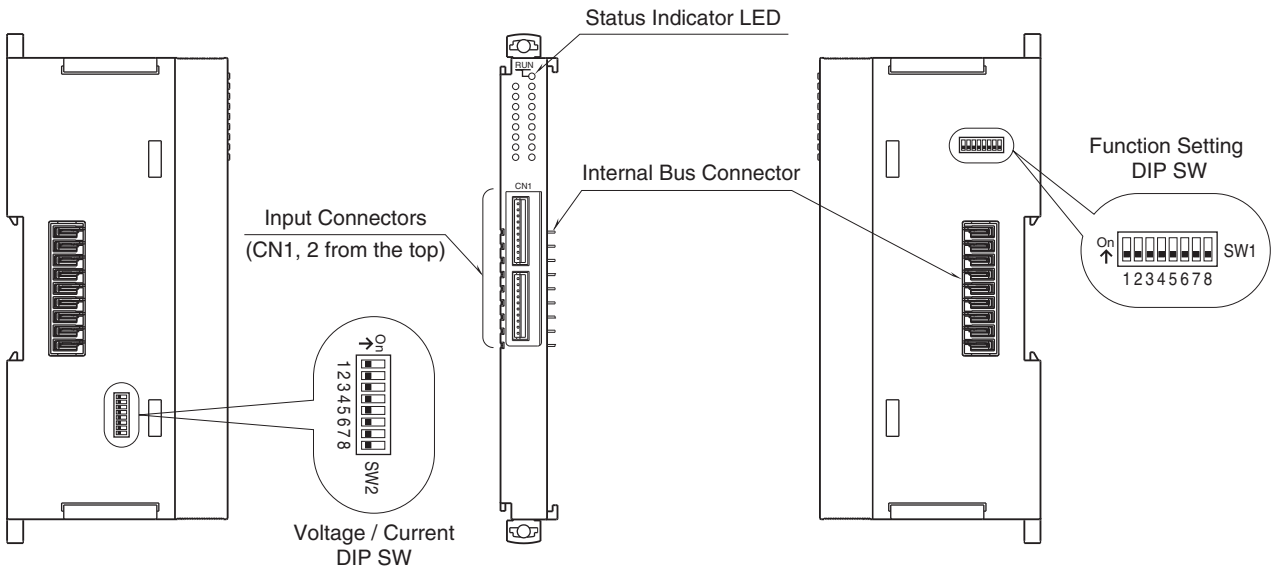
■ **Current input:**
For input setting value 4 - 20 mA DC
Conversion accuracy = Input range span (40 mA) ÷ input setting value span (16 mA) × 0.1 (%) = 0.25 (%)

## STANDARDS & APPROVALS

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

## EXTERNAL VIEW

■ **LEFT VIEW** ■ **FRONT VIEW** ■ **RIGHT VIEW**






MG CO., LTD.
www.mgco.jp

## 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 28.

(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 |

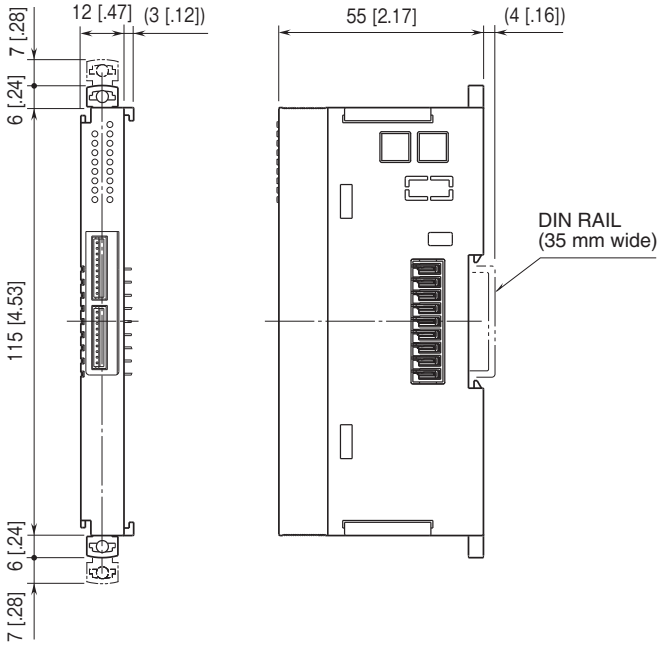
**■ Voltage / Current DIP SW**

For voltage input, set the switch OFF.

For current input set the switch ON.

Note: To configure the input, setting from configurator software and the setting of this switch are required.

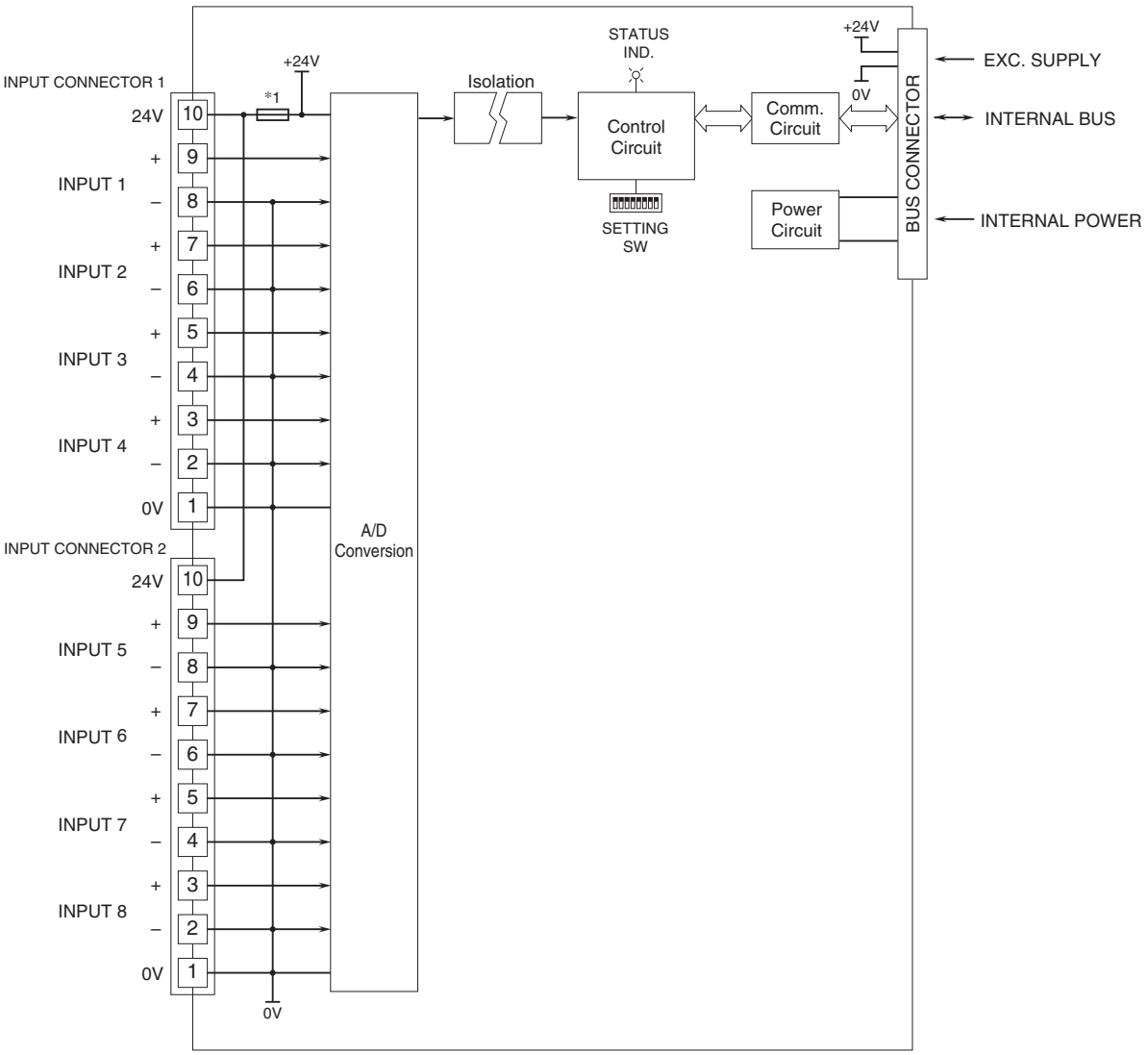
## EXTERNAL DIMENSIONS unit: mm [inch]






MG CO., LTD.
www.mgco.jp

## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM




*1. Fuse is not replaceable.

⚠ Specifications are subject to change without notice.



MG CO., LTD.
www.mgco.jp