

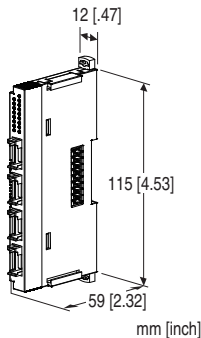
Remote I/O R8 Series

DC CURRENT INPUT MODULE

(built-in excitation, 4 points, non-isolated)

Functions & Features

- Accepts direct input from DC signal, compact size remote I/O module
- Accepts direct input from power output as sensor power and outputs from terminals



MODEL: R8-SS4NJ[1]

ORDERING INFORMATION

- Code number: R8-SS4NJ[1]
- Specify a code from below for [1].
(e.g. R8-SS4NJ/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 M-System's web site.)

/C01: Silicone coating

/C02: Polyurethane coating

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

- **Input:** 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 mm² (AWG28 - 20)
Outer sheath diameter: max. 1.5 dia
(The cable side 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: Input to exc. supply to internal bus or internal power

Input range: Selectable with the side DIP SW

Module address: With rotary switch

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.

Input status indicators: Red LED; Refer to the instruction manual.

INPUT

Input range: -20 - +20 mA DC configurable

Input range: -5 - +105 % (in percentage of input range)

Input resistance: 50 Ω

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)

±0.1 % (@ input range -20 - +20 mA)

Conversion accuracy is inversely proportional to input span.

Conversion accuracy computation example:

When input range is 4 - 20 mA: conversion accuracy =
nominal input span (40 mA) ÷ input span (16 mA) × 0.1(%)
= 0.25 (%).

Nominal input span is the same as the span at input range
-20 - +20 mA DC.

Conversion rate: 4 msec. @ 4 input

Input circuit time constant: Approx. 1 msec.

Data range: 0 - 10000 of the input range

Data allocation: 2

Module addresses in use: 2

Power output (input connector): Rated current 0.5 A DC per channel (rated current 3 A for internal fuse (slow blow fuse i^2t (A²sec.) max. 5.04); Total: 1 A DC

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

Insulation resistance: ≥ 100 M Ω with 250 V DC

Dielectric strength: 300 V AC @1 minute

(input to exc. supply)

1500V AC @1 minute

(input 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

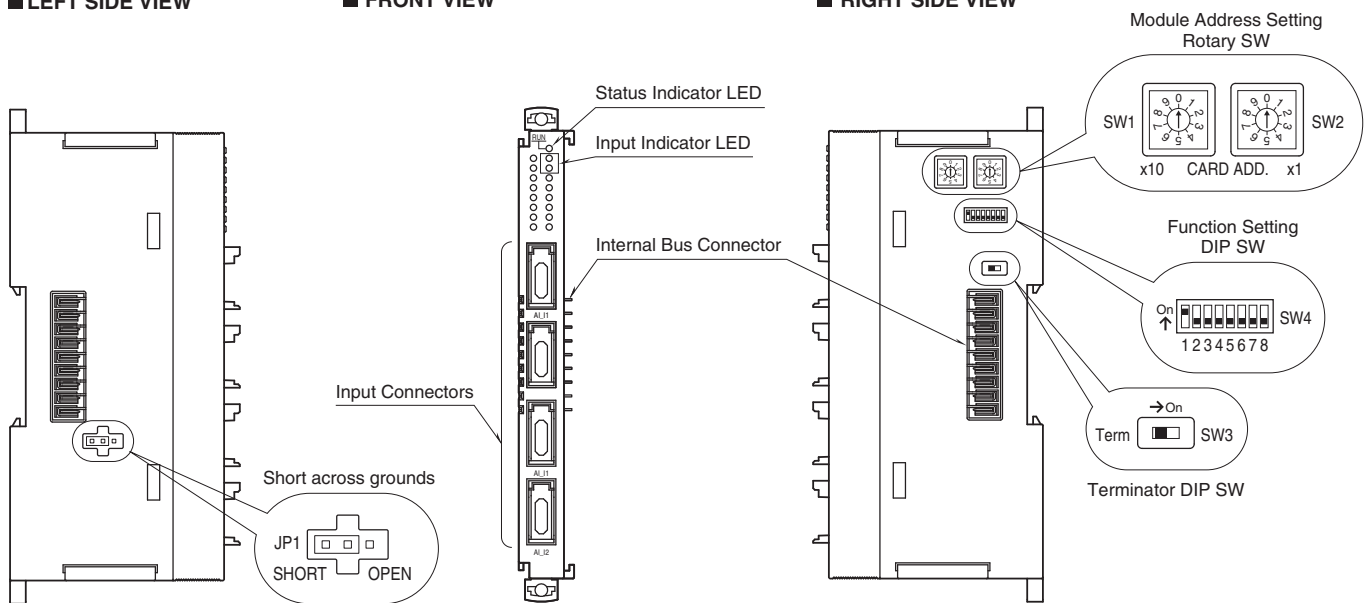
RoHS Directive

EXTERNAL VIEW

■ LEFT SIDE VIEW

■ FRONT VIEW

■ RIGHT SIDE VIEW



SHORT ACROSS GROUNDS

Choose to open or short across grounds of excitation supply and input.

In case of shorting across, insert short-plug in the center pin of JP1 and SHORT side.

In case of opening, insert short-plug in the center pin of JP1 and OPEN side.

Factory default is on SHORT side.

OPERATING MODE SETTING

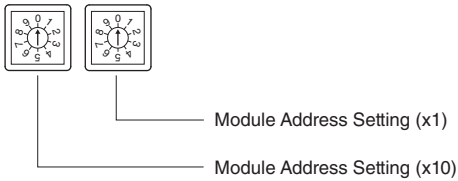
(*) Factory setting

Caution ! - SW4-3 through 4-7 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)



■ Input Range

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

INPUT RANGE	SW4	
	1	2
0 – 20 mA DC	OFF	OFF
4 – 20 mA DC (*)	ON	OFF

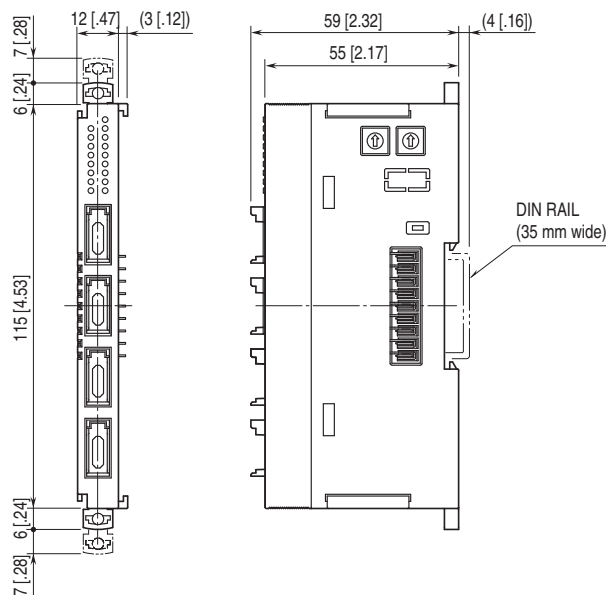
■ Configuration Mode

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

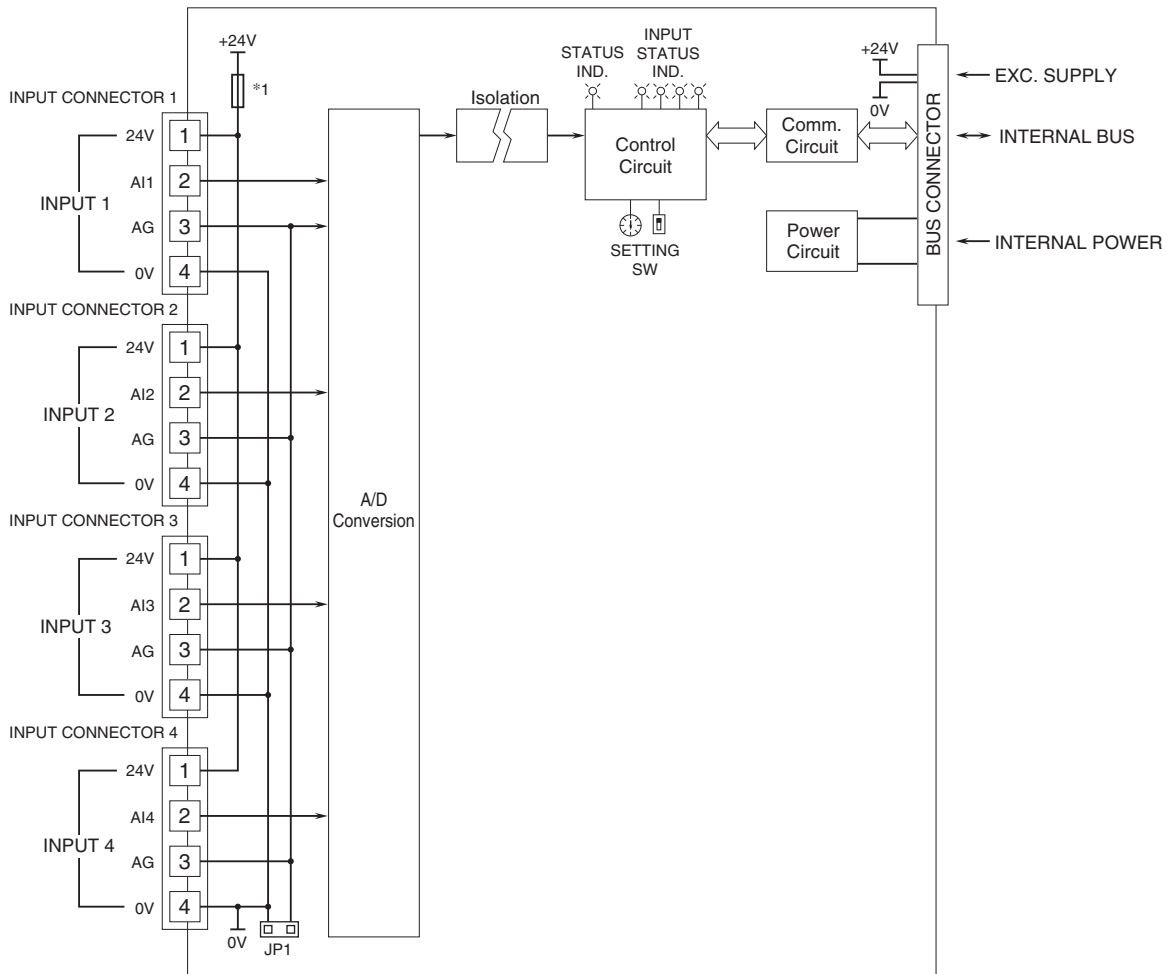
■ Terminator DIP SW

TERMINATOR SW	SW3
Without (*)	OFF
With	ON

EXTERNAL DIMENSIONS unit: mm [inch]



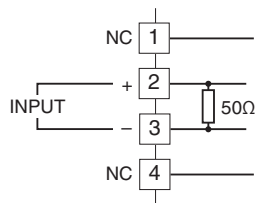
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



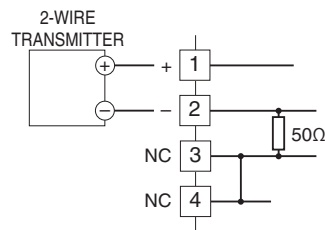
*1. Fuse is not replaceable.

■ INPUT CONNECTION

• When Used as DC Current Input
JP1 can be open or short.



• When Used as DC Supply
Short the JP1.



Specifications are subject to change without notice.