

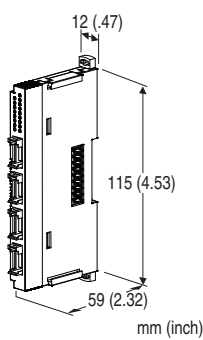
Remote I/O R8 Series

DC VOLTAGE INPUT MODULE

(4 points, non-isolated)

Functions & Features

- 4 channels for DC voltage input, compact size remote I/O module
- Input range adjustment with DIP switch or PC configurator



MODEL: R8-SV4N

ORDERING INFORMATION

- Code number: R8-SV4N

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
PWB connector XN2D-1474-S002 (Omron)
Recommended cable connector XN2A-1470 (Omron)
Applicable wire size 0.08 mm² (AWG28) - 0.5 mm² (AWG20)
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: Input to exc. supply to internal bus or internal power

Module address: With rotary switch

Terminating resistor: Built-in (DIP Switch, default: disable)

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: -10 - +10 V DC configurable

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

Input resistance: ≥ 1 MΩ

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)

±0.05 % (@ input range -10 - +10 V)

Conversion accuracy is inversely proportional to input span.

Conversion accuracy computation example:

When input range is 1 - 5 V: conversion accuracy =
nominal input span (20 V) ÷ input span (4 V) × 0.05(%) =
0.25 (%).

Nominal input span is the same as the span at input range
-10 - +10 V DC.

Conversion rate: 4 msec.

Input circuit time constant: Approx. 1 msec.

Data range: 0 - 10000 of the input range

Data allocation: 2

Module addresses in use: 2

Max. consumption current: 80 mA

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

Insulation resistance: ≥ 100 MΩ with 500 V DC

Dielectric strength:

1500 V AC @ 1 minute (input to exc. supply to internal bus
or internal power to ground)

STANDARDS & APPROVALS

CE conformity:

EMC Directive (2004/108/EC)

EMI EN 61000-6-4: 2007

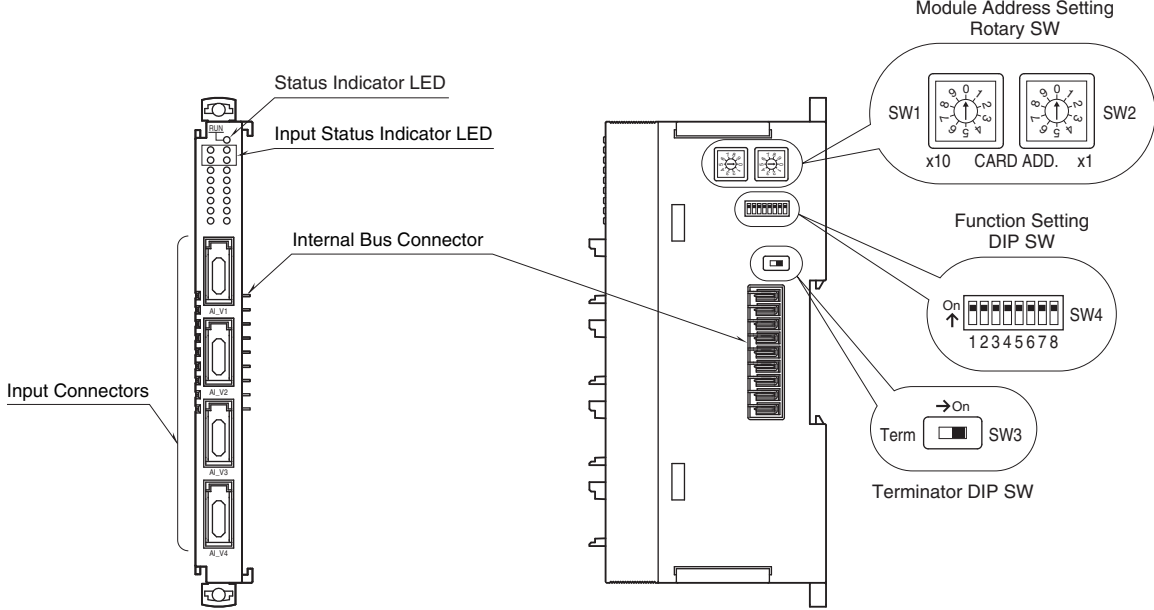
EMS EN 61000-6-2: 2005



EXTERNAL VIEW

FRONT VIEW

SIDE VIEW



OPERATING MODE SETTING

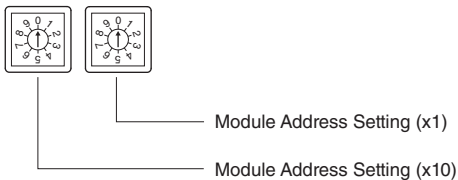
(*) Factory setting

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 switch does the ones place digit of the address. Address is selected between 0 to 31.

(Factory setting: 0)



Terminator DIP SW

| | |
|-------------------|-----|
| Terminator switch | SW3 |
| Without (*) | OFF |
| With | ON |

Range

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

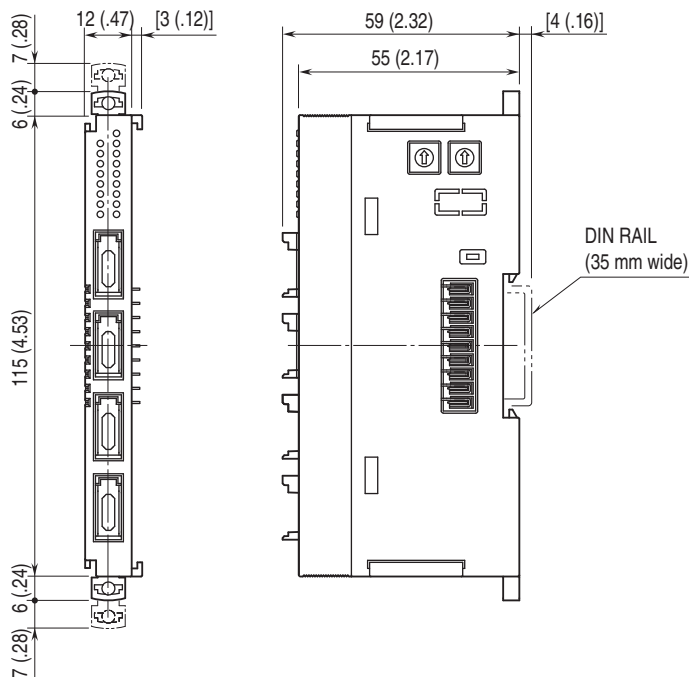
| INPUT RANGE | SW4 | |
|------------------|-----|-----|
| | 1 | 2 |
| -10 - 10V DC (*) | OFF | OFF |
| 0 - 10V DC | ON | OFF |
| 0 - 5V DC | OFF | ON |
| 1 - 5V DC | ON | ON |

Configuration Mode

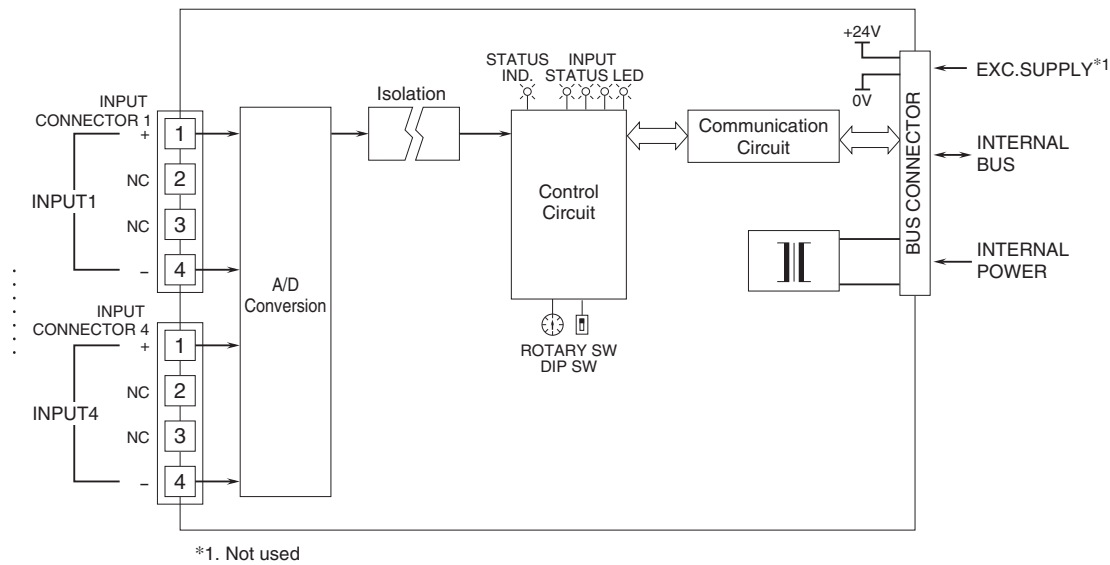
| | |
|-----------------------------------|-----|
| CONFIGURATION MODE | SW4 |
| | 8 |
| DIP switch setting (*) | OFF |
| PC Configurator and communication | ON |




DIMENSIONS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



 Specifications are subject to change without notice.

