

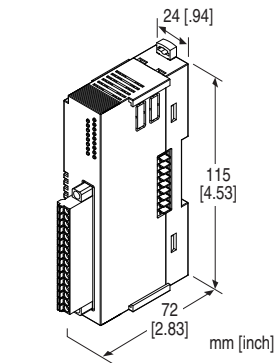
Remote I/O R8 Series

DC VOLTAGE INPUT MODULE

(8 points, isolated, Tension clamp terminal block)

Functions & Features

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



MODEL: R8-SVT8[1]

ORDERING INFORMATION

- Code number: R8-SVT8[1]
- Specify a code from below for [1].
(e.g. R8-SVT8/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 cable (model: COP-US)
 - PC configurator software (model: R8CFG)
- Downloadable at M-System's web site.

GENERAL SPECIFICATIONS

Connection

- **Input:** Tension clamp

Applicable wire size: 0.2 - 1.5 mm²

Stripped length: 10 mm

- **Excitation supply, internal bus:**

Connected to internal bus connector

- **Internal power:** Via bus connector

Isolation: Input 1 to input 2 to input 3 to input 4 to input 5 to input 6 to input 7 to input 8 to exc. supply to internal bus or internal power

Input range: Selectable with the side DIP SW

Module address: With DIP 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: -10 - +10 V DC configurable

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

Input resistance: ≥ 1 MΩ

INSTALLATION

Max. current consumption: 200 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: 100 g (0.22 lb)

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: 8 msec.

Input circuit time constant: Approx. 1 msec.

Data range: 0 - 10000 of the input range

Data allocation: 2

Module addresses in use: 4

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

Insulation resistance: ≥ 100 MΩ with 500 V DC

Dielectric strength:

500 V AC @ 1 minute (input 1 to input 2 to input 3 to

input 4 to input 5 to input 6 to input 7 to input 8)

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

STANDARDS & APPROVALS

EU conformity:

EMC Directive

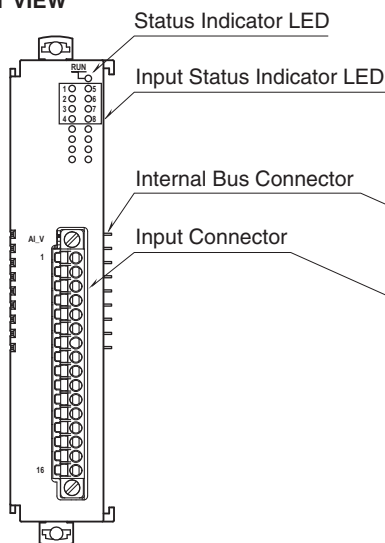
EMI EN 61000-6-4

EMS EN 61000-6-2

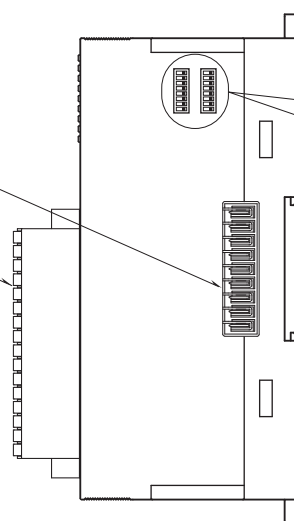
RoHS Directive

EXTERNAL VIEW

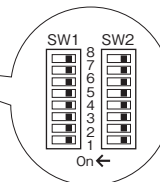
FRONT VIEW



SIDE VIEW



Function Setting DIP SW



OPERATING MODE SETTING

(*) Factory setting

Caution ! - SW2-3, 2-4, 2-5, 2-7 are unused. Be sure to turn off unused ones.

■ Module Address

SW1-1, 1-2, 1-3, and 1-4 determine the tenth place digit, while SW1-5, 1-6, 1-7 and 1-8 do the ones place digit of the address. Address is selected between 0 to 28.

(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.

INPUT RANGE	SW2	
	1	2
-10 - +10V DC (*)	OFF	OFF
0 - 10V DC	ON	OFF
0 - 5V DC	OFF	ON
1 - 5V DC	ON	ON

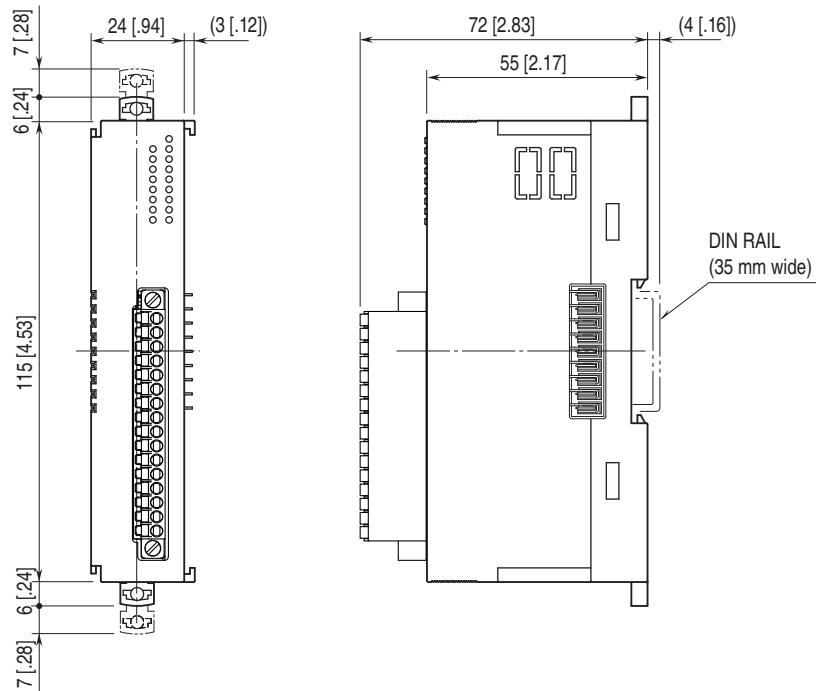
■ Terminator DIP SW

TERMINATOR SW	SW2
	6
Without (*)	OFF
With	ON

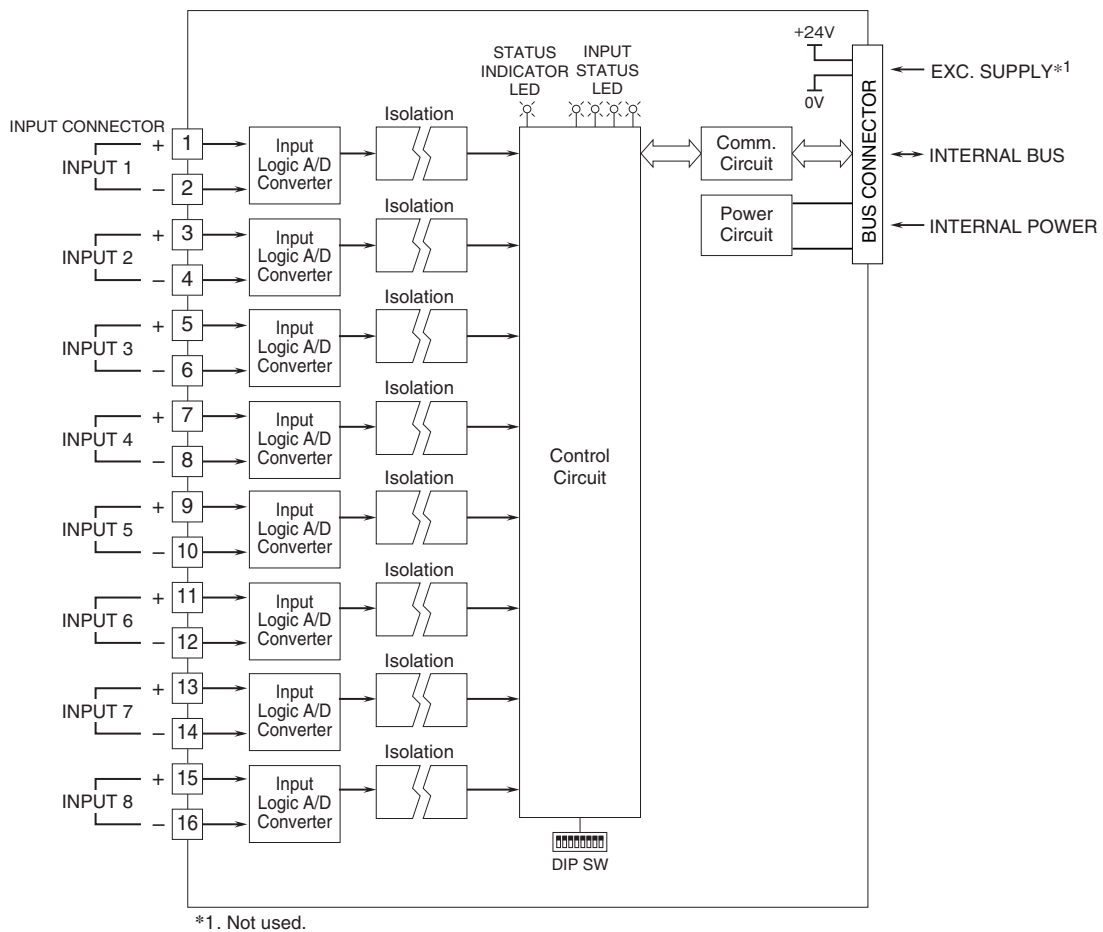
■ Configuration Mode

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

EXTERNAL DIMENSIONS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM





Specifications are subject to change without notice.