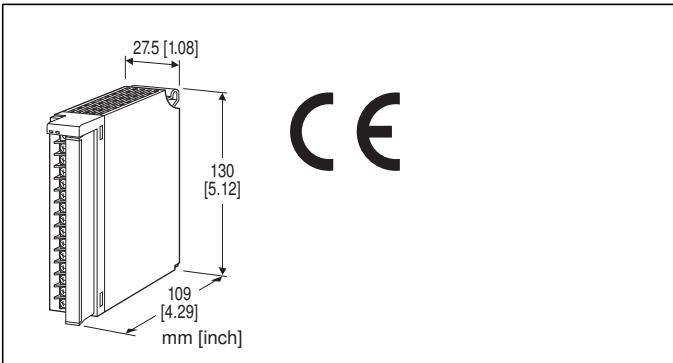


Remote I/O R3 Series

DC VOLTAGE INPUT MODULE

(8 points, isolated)



MODEL: R3-SV8[1][2]

ORDERING INFORMATION

- Code number: R3-SV8[1][2]
Specify a code from below for each of [1] and [2].
(e.g. R3-SV8W/CE/Q)
- Specify the specification for option code /Q
(e.g. /C01/SET)

NO. OF CHANNELS

8: 8

[1] COMMUNICATION MODE

S: Single
W: Dual

[2] OPTIONS (multiple selections)

Standards & Approvals

blank: Without CE
/CE: CE marking

Other Options

blank: none
/Q: Option other than the above (specify the specification)

SPECIFICATIONS OF OPTION: Q (multiple selections)

COATING (For the detail, refer to M-System's web site.)

/C01: Silicone coating
/C02: Polyurethane coating
/C03: Rubber coating

EX-FACTORY SETTING

/SET: Preset according to the Ordering Information Sheet
(No. ESU-8367)

CAUTION

■ UNUSED INPUT CHANNELS

Set the unused channels to the ranges other than 1 - 5 V. Otherwise, set them as "Unused" with PC Configurator software: R3CON. Unused channels left open with 1 - 5 V setting are equal to the input lower than -15 %, which sets a data abnormality at the PLC or the host device.

GENERAL SPECIFICATIONS

Connection

Internal bus: Via the Installation Base (model: R3-BSx)

Input: M3 separable screw terminal (torque 0.5 N·m)

Internal power: Via the Installation Base
(model: R3-BSx)

Screw terminal: Nickel-plated steel

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 internal bus or internal power

Input range: Selectable with the side DIP SW (per 4 channels)

Conversion rate: Selectable with the side DIP SW

RUN indicator: Bi-color (red/green) LED;

Red when the bus A operates normally;

Green when the bus B operates normally;

Amber when both buses operate normally.

ERR indicator: Bi-color (red/green) LED;

Red with input circuit abnormality (AD converter response failure);

Green in normal operating conditions.

INPUT SPECIFICATIONS

■ **Narrow Span:** -1 - +1 V, 0 - 1 V DC

Input resistance: 100 kΩ min.

■ **Wide Span:** -10 - +10 V, -5 - +5 V,

0 - 10 V, 0 - 5 V, 1 - 5 V DC

Input resistance: 1 MΩ min.

INSTALLATION

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: Installation Base (model: R3-BSx)

Weight: 250 g (0.55 lb)

PERFORMANCE

Conversion accuracy: Refer to the table at the end of this section.

Conversion rate: 160 / 80 / 40 / 20 msec. selectable

Data range: 0 - 10000 of the input range

Data allocation: 8

Current consumption: 100 mA

Temp. coefficient: $\pm 0.015\%$ /°C ($\pm 0.008\%$ /°F)
 ($\pm 0.03\%$ /°C [$\pm 0.02\%$ /°F] with 0 - 5 V or 1 - 5 V range)

Insulation resistance: $\geq 100\text{ M}\Omega$ with 500 V DC

Dielectric strength: 1000 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 to internal bus or internal power)

2000 V AC @ 1 minute (power input to FG; isolated on the power supply module)

Conversion accuracy

RANGE \ RATE	160 msec.	80 msec.	40 msec.	20 msec.
All ranges	$\pm 0.1\%$	$\pm 0.2\%$	$\pm 0.4\%$	$\pm 0.8\%$

STANDARDS & APPROVALS

EU conformity:

EMC Directive

EMI EN 61000-6-4

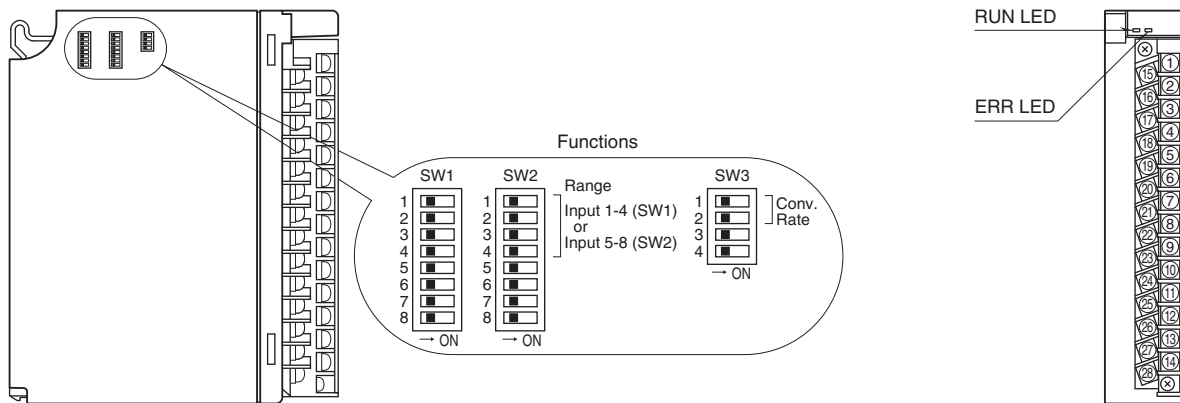
EMS EN 61000-6-2

RoHS Directive

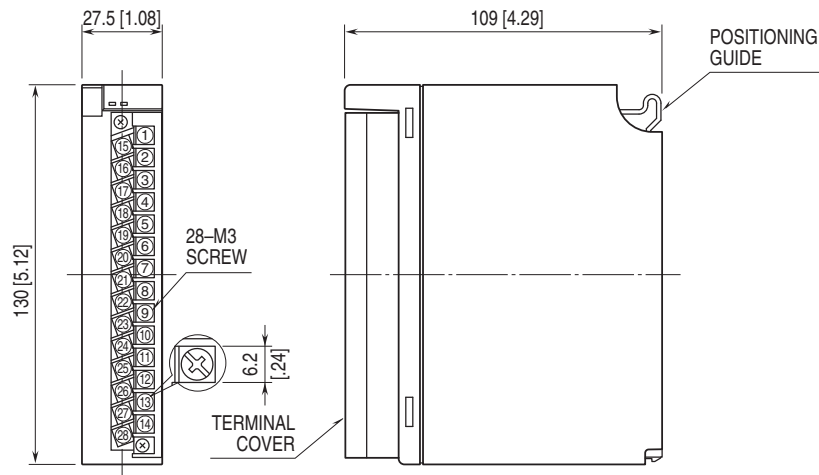
EXTERNAL VIEW

■ SIDE VIEW

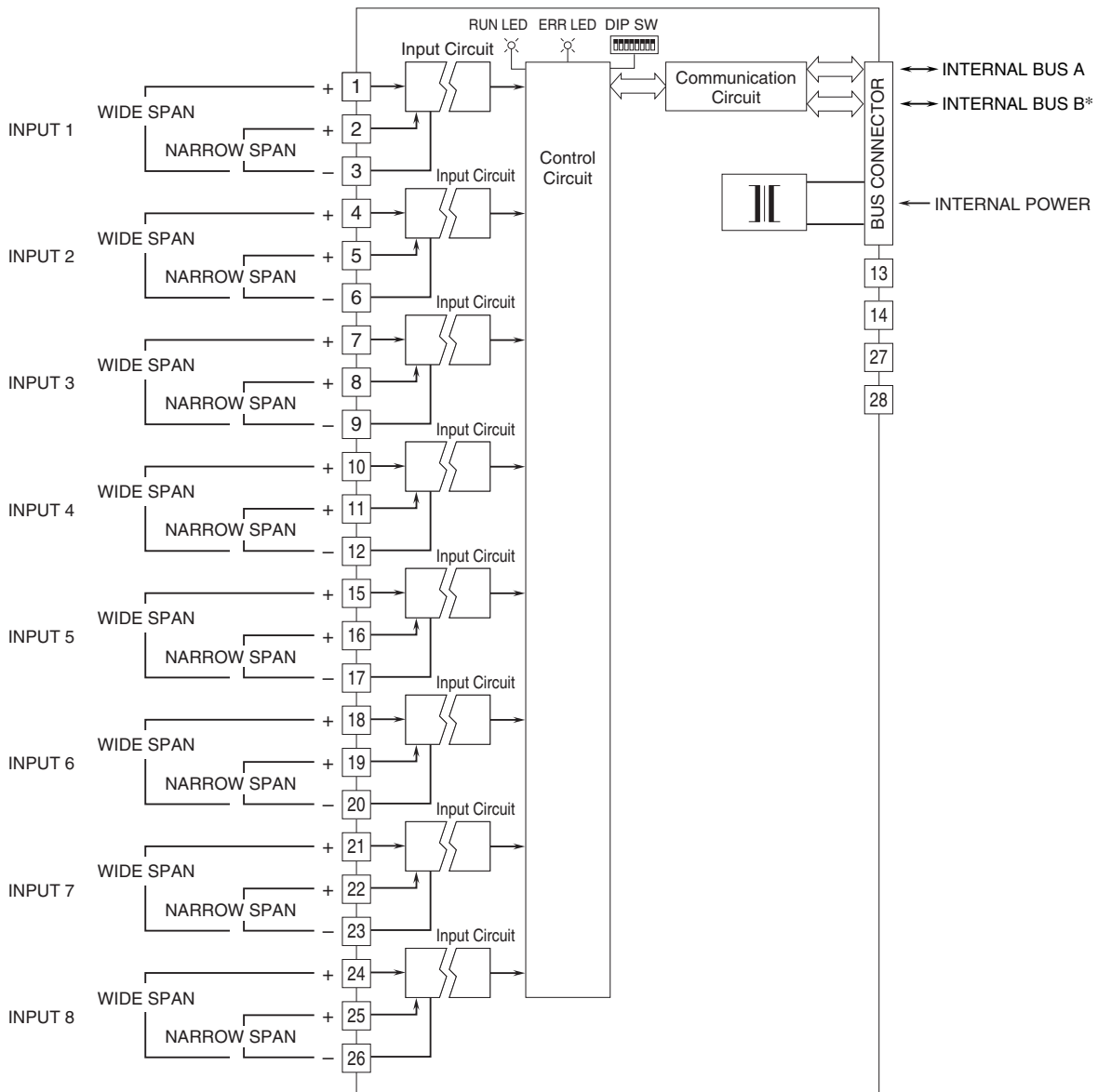
■ FRONT VIEW



EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



* For dual redundant communication.
 Note: Connect either wide or narrow span terminals for each channel.



Specifications are subject to change without notice.