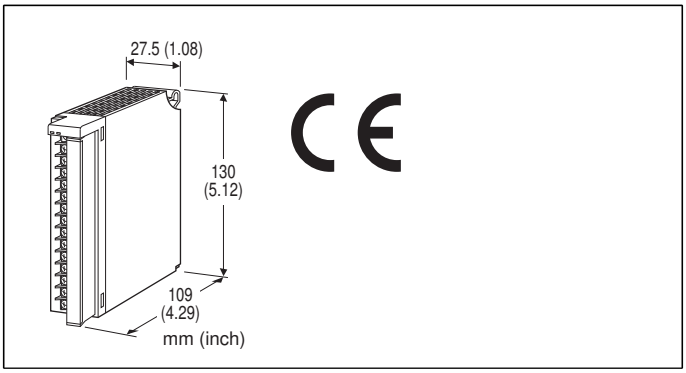
Remote I/O R3 Series

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 otherthan 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: ±0.015 % /°C (±0.008 %/°F)
(±0.03 % /°C [±0.02 %/°F] with 0 – 5 V or 1 – 5 V range)
Insulation resistance: ≥ 100 MΩ 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

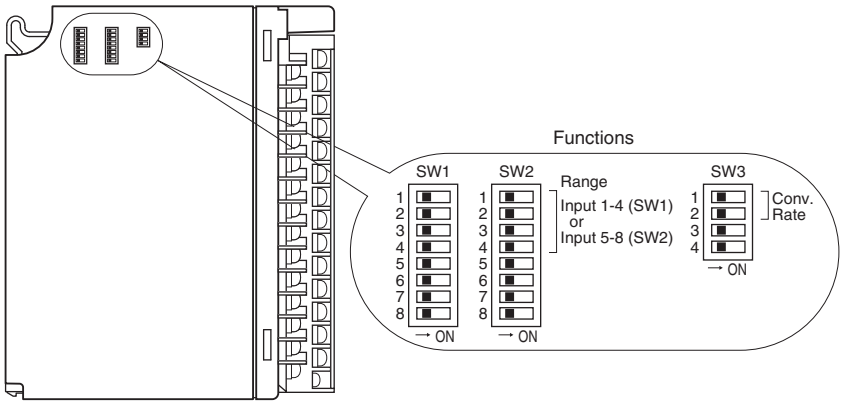
RANGE \ RATE	160 msec.	80 msec.	40 msec.	20 msec.
All ranges	±0.1%	±0.2%	±0.4%	±0.8%

STANDARDS & APPROVALS

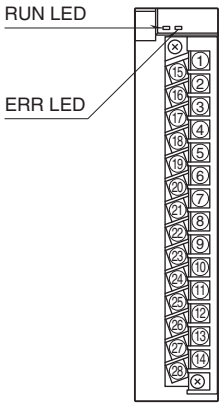
EU conformity:
EMC Directive
EMI EN 61000-6-4
EMS EN 61000-6-2
RoHS Directive
EN 50581

EXTERNAL VIEW

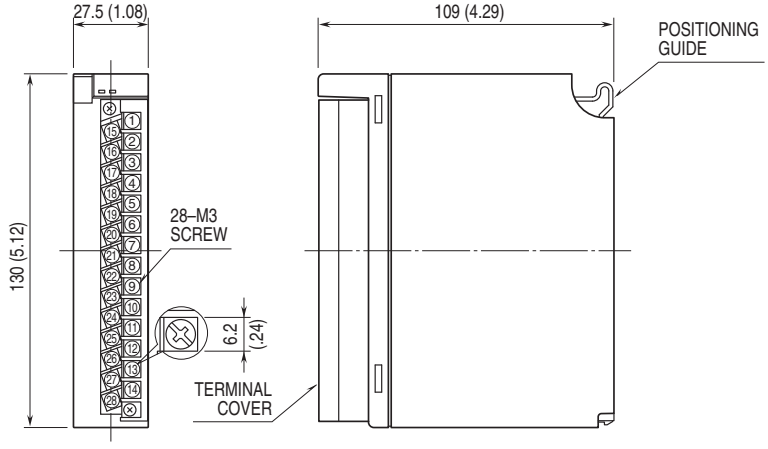
■ **SIDE VIEW**



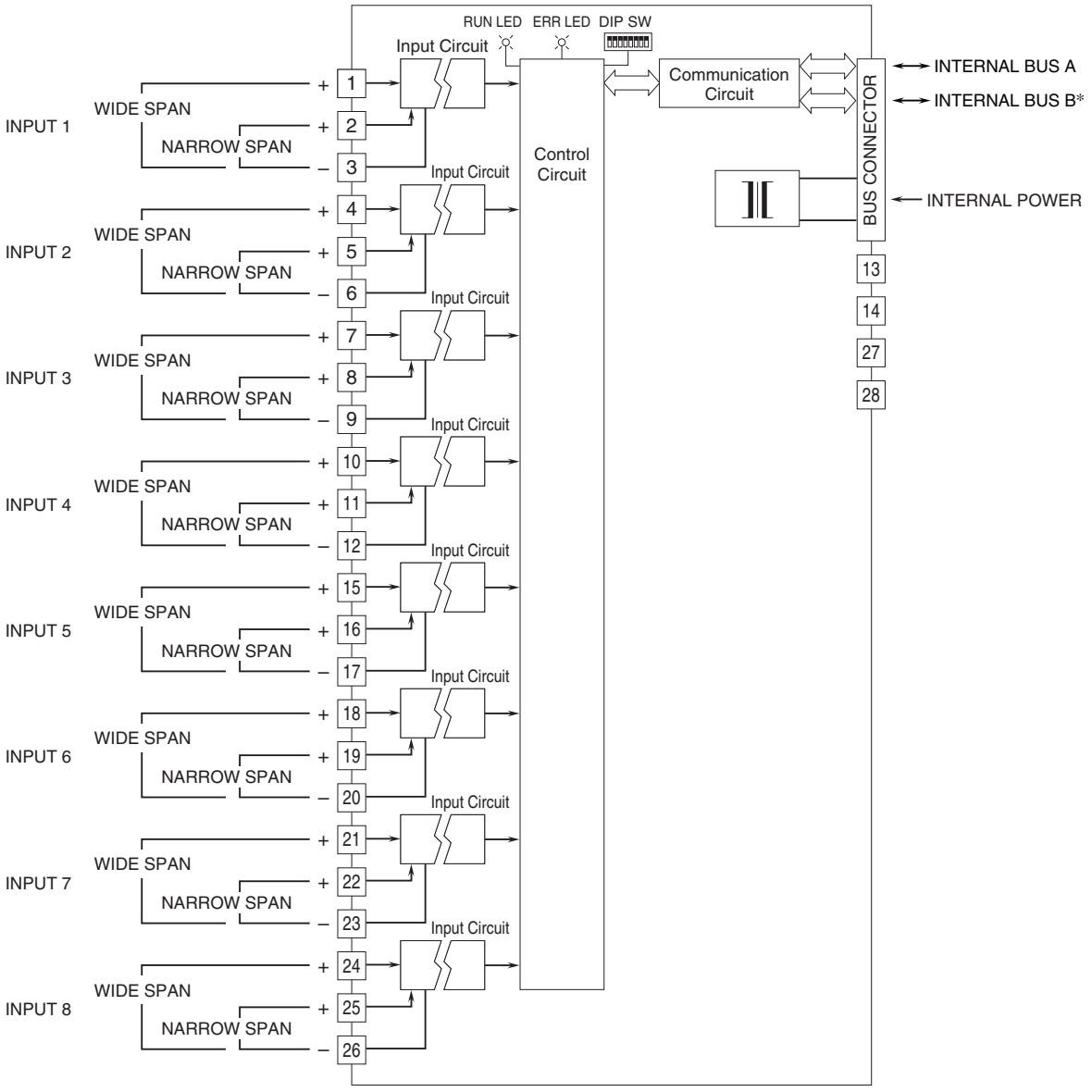
■ **FRONT VIEW**



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.