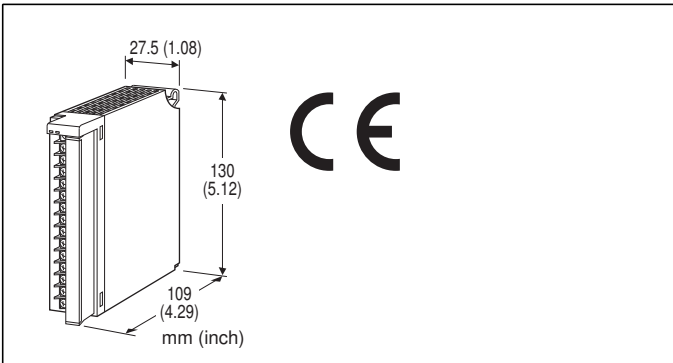


## Remote I/O R3 Series

### DC MILLIVOLT INPUT MODULE

(8 points, isolated)



### MODEL: R3-SV8A[1][2]

#### ORDERING INFORMATION

- Code number: R3-SV8A[1][2]  
Specify a code from below for each [1] and [2].  
(e.g. R3-SV8AW/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-8411)

#### CAUTION

##### ■UNUSED INPUT CHANNELS

Set the unused channels to -100 - +100 mV range. Otherwise, set them as "Unused" with PC Configurator software: R3CON. Unused channels left open with other settings may be 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 the input circuit abnormality (AD converter response failure);  
Green in normal operating conditions.

#### INPUT SPECIFICATIONS

**Input:** -100 - +100 mV, -60 - +60 mV, -50 - +50 mV, 0 - 100 mV, 0 - 60 mV, 0 - 50 mV DC  
**Input resistance:** 100 kΩ 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  
(±0.03 %/°C with 0 - 50 mV 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

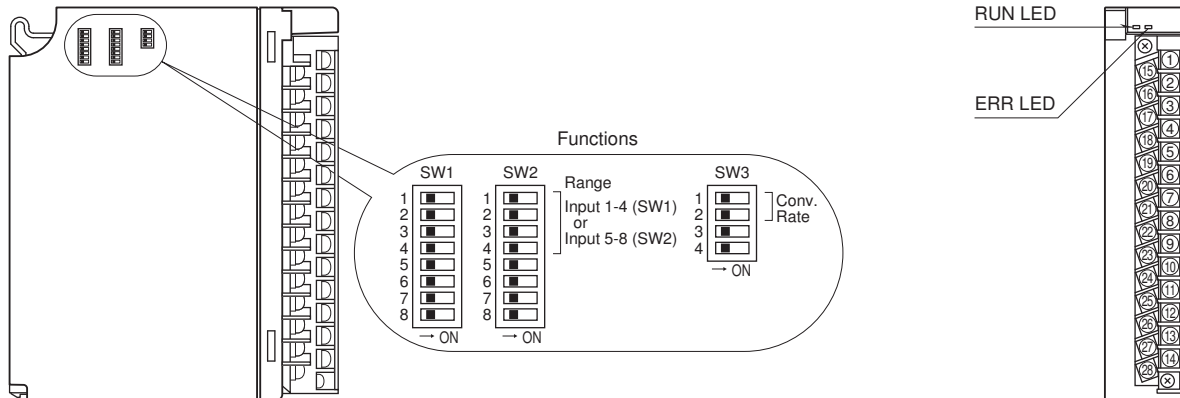
**CE conformity:**

EMC Directive (2004/108/EC)  
 EMI EN 61000-6-4: 2007/A1: 2011  
 EMS EN 61000-6-2: 2005

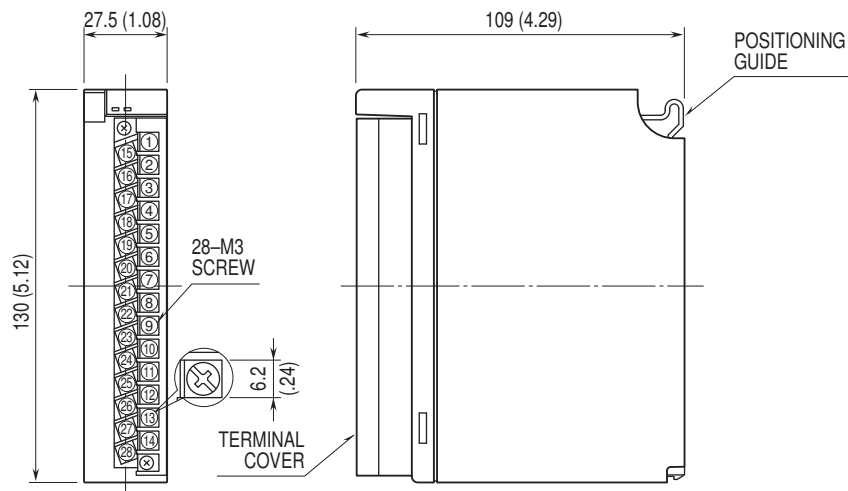
## EXTERNAL VIEW

SIDE VIEW

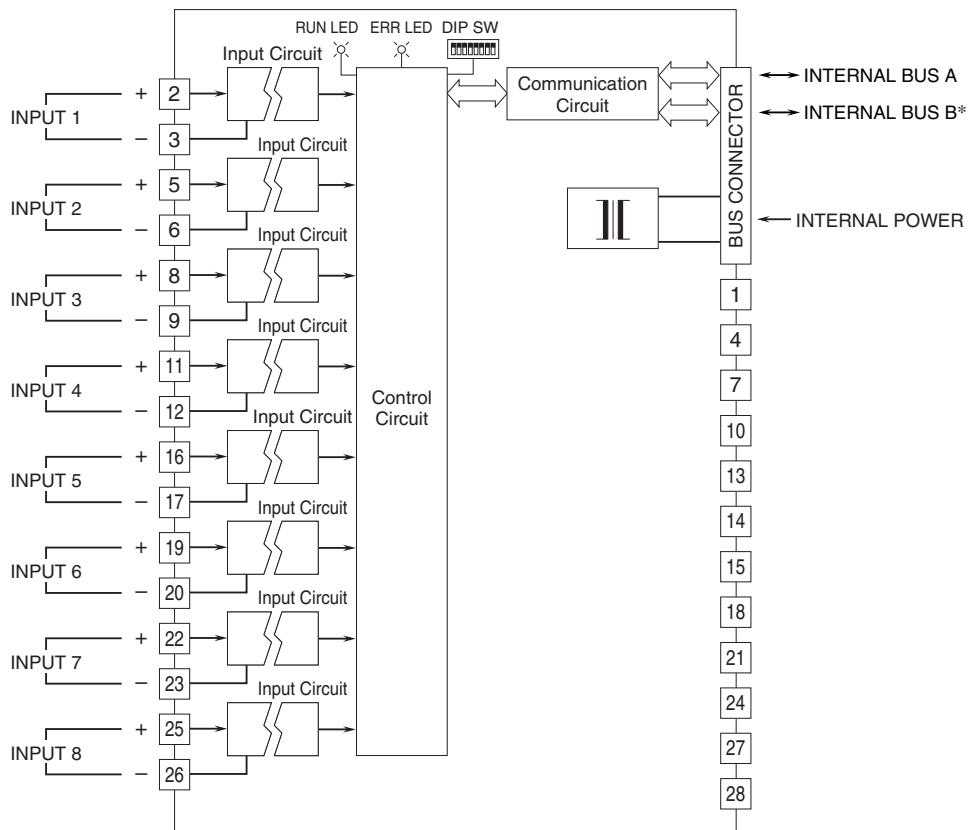
FRONT VIEW



## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



\*For dual redundant communication.  
DO NOT connect external wiring to the unused terminals.



Specifications are subject to change without notice.

