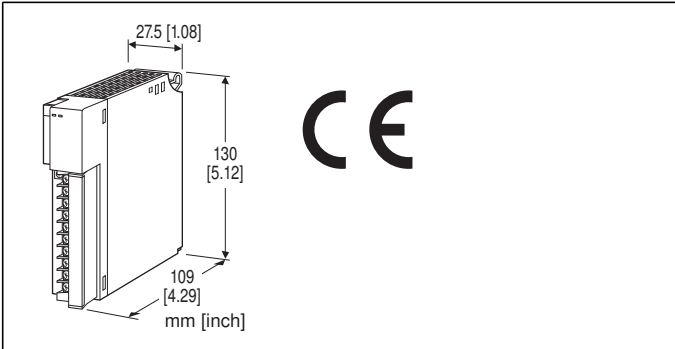


## Remote I/O R3 Series

/SET: Preset according to the Ordering Information Sheet  
(No. ESU-8404)

### DC VOLTAGE INPUT MODULE

(16 points, non-isolated)



### MODEL: R3-SV16N[1][2]

#### ORDERING INFORMATION

- Code number: R3-SV16N[1][2]  
Specify a code from below for each of [1] and [2].  
(e.g. R3-SV16NW/CE/Q)
- Specify the specification for option code /Q  
(e.g. /C01/SET)

#### NO. OF CHANNELS

16: 16

#### ISOLATION

N: Non-isolated between inputs

#### [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

#### 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 to internal bus or internal power  
**Input range:** Selectable with the side DIP SW (per 8 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

**Input:** -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:** 200 g (0.44 lb)

#### PERFORMANCE

**Conversion accuracy:** Refer to the table at the end of this section.  
**Conversion rate:** 100 / 50 / 20 / 10 msec. selectable  
**Data range:** 0 - 10000 of the input range  
**Data allocation:** 16  
**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:**  $\geq 100 \text{ M}\Omega$  with 500 V DC

**Dielectric strength:** 1500 V AC @ 1 minute

(input 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	100 msec.	50 msec.	20 msec.	10 msec.
-10 – +10V	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$
-5 – +5V	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$
0 – 10V	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$	$\pm 0.1\%$
0 – 5V	$\pm 0.2\%$	$\pm 0.2\%$	$\pm 0.2\%$	$\pm 0.2\%$
1 – 5V	$\pm 0.2\%$	$\pm 0.2\%$	$\pm 0.2\%$	$\pm 0.2\%$

## STANDARDS & APPROVALS

**EU conformity:**

EMC Directive

EMI EN 61000-6-4

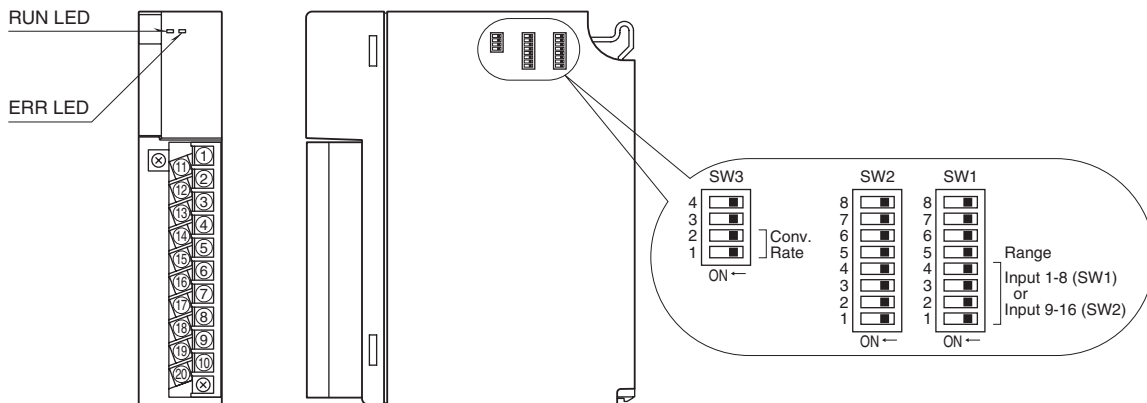
EMS EN 61000-6-2

RoHS Directive

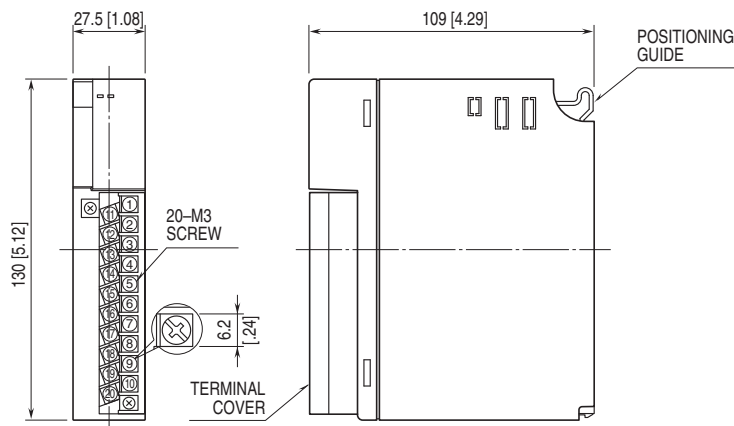
## EXTERNAL VIEW

■ FRONT VIEW

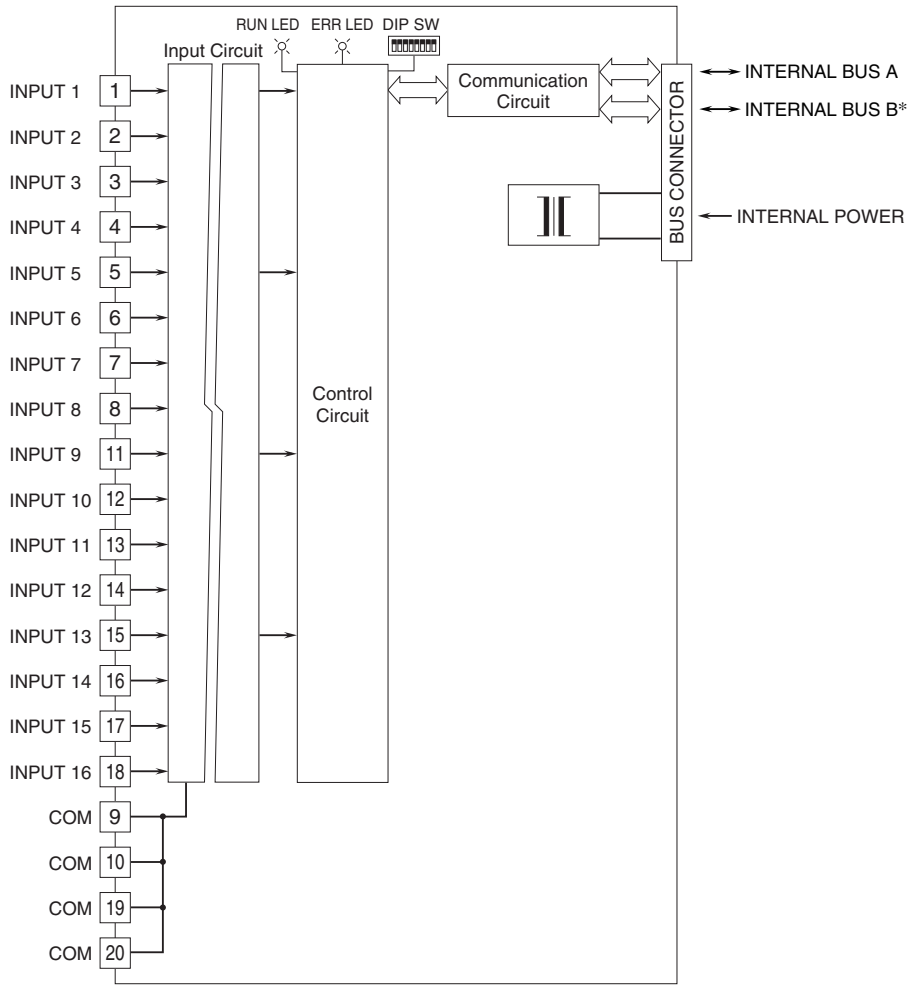
■ SIDE VIEW



## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



\*For dual redundant communication.



Specifications are subject to change without notice.