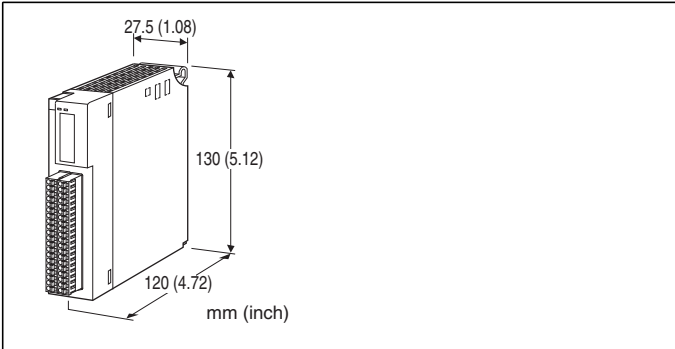


Remote I/O R3 Series

DC VOLTAGE INPUT MODULE

(8 points, non-isolated)



MODEL: R3S-SV8N[1]

ORDERING INFORMATION

- Code number: R3S-SV8N[1]
Specify a code from below for [1].
(e.g. R3S-SV8NW/Q)
- Specify the specification for option code /Q
(e.g. /SET)

NO. OF CHANNELS

8: 8

ISOLATION

N: Non-isolated between inputs

[1] COMMUNICATION MODE

S: Single
W: Dual

[2] OPTIONS

blank: none
/Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q

EX-FACTORY SETTING

/SET: Preset according to the Ordering Information Sheet
(No. ESU-8403)

CAUTION

■ UNUSED INPUT CHANNELS

Set the unused channels to -10 - +10 V 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: Separable tension clamp terminal
Power supply: Via the Installation Base (model: R3-BSx)
Applicable wire size: 0.2 to 1.25 mm², stripped length 10 mm
Isolation: Input to 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: -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: 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: 1500 V AC @ 1 minute
(input to internal power)

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



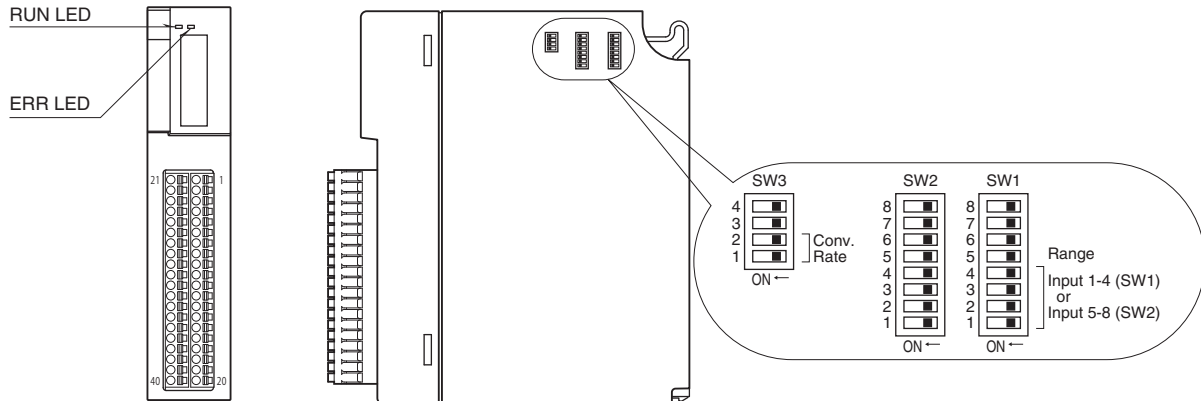
Conversion accuracy

RANGE	RATE	100 msec.	50 msec.	20 msec.	10 msec.
-10 – +10V		±0.1%	±0.1%	±0.1%	±0.1%
-5 – +5V		±0.1%	±0.1%	±0.1%	±0.1%
0 – 10V		±0.1%	±0.1%	±0.1%	±0.1%
0 – 5V		±0.2%	±0.2%	±0.2%	±0.2%
1 – 5V		±0.2%	±0.2%	±0.2%	±0.2%

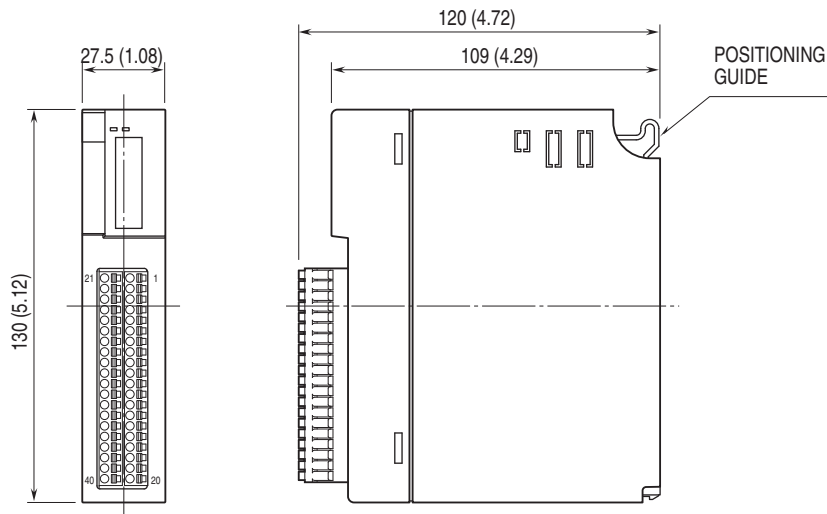
EXTERNAL VIEW

■ FRONT VIEW

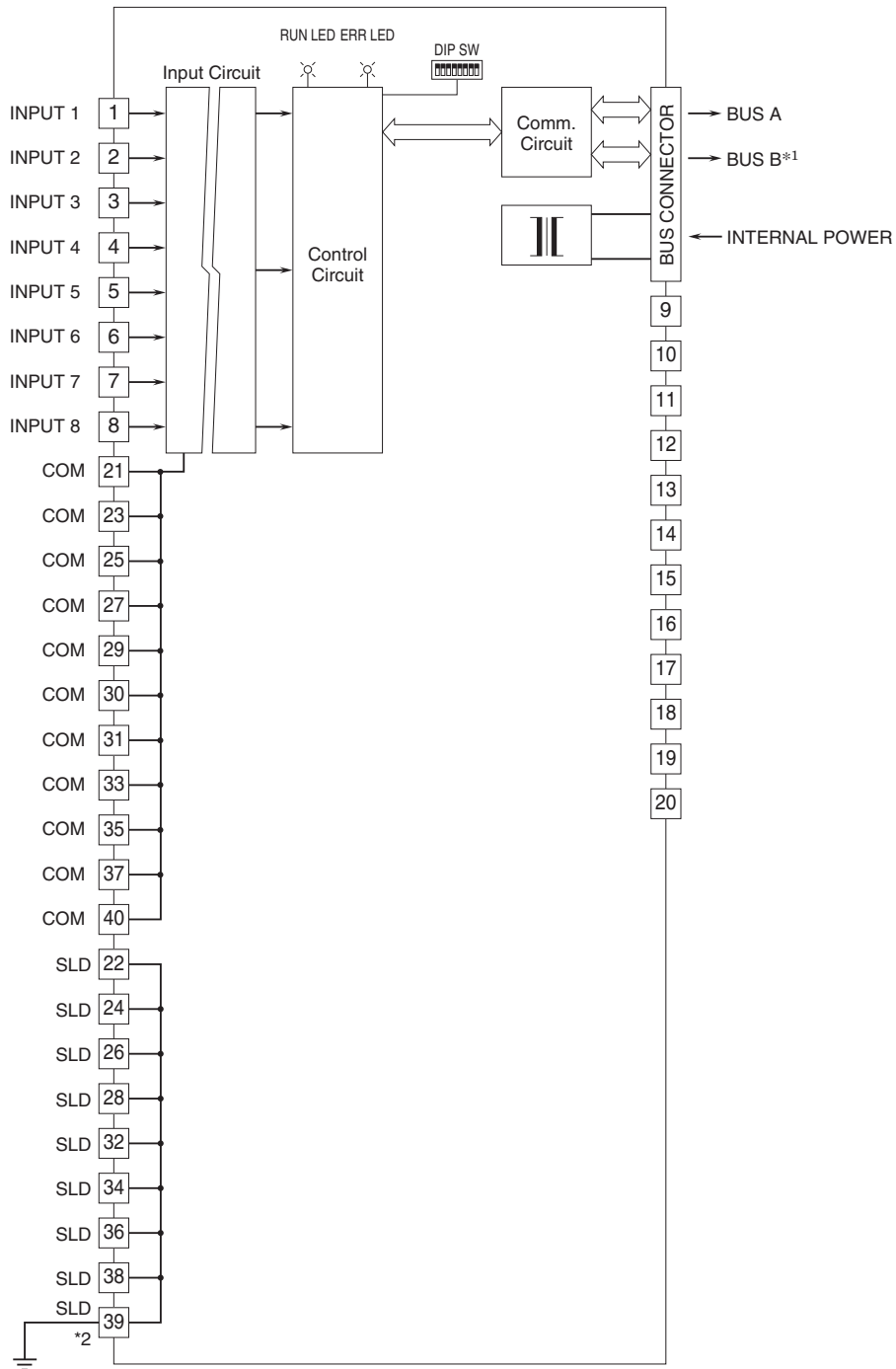
■ SIDE VIEW



EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*1. For dual redundant communication.
 *2. To use shield line, connect it to SLD terminal and ground the terminal 39.
 Note: Do not use void terminals.



INPUT CONNECTOR

PIN No.	FUNCTION	PIN No.	FUNCTION
21	COM	1	V1
22	SLD	2	V2
23	COM	3	V3
24	SLD	4	V4
25	COM	5	V5
26	SLD	6	V6
27	COM	7	V7
28	SLD	8	V8
29	COM	9	NC
30	COM	10	NC
31	COM	11	NC
32	SLD	12	NC
33	COM	13	NC
34	SLD	14	NC
35	COM	15	NC
36	SLD	16	NC
37	COM	17	NC
38	SLD	18	NC
39	SLD	19	NC
40	COM	20	NC



Specifications are subject to change without notice.

