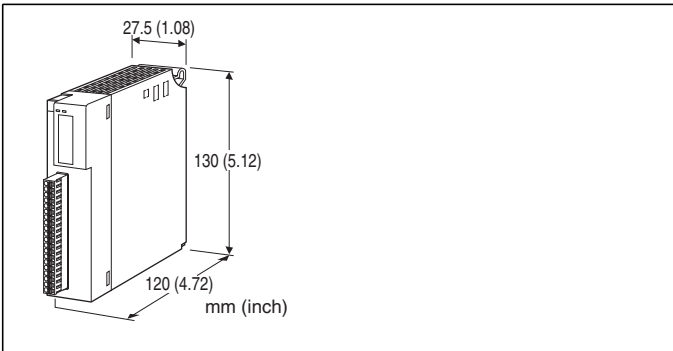


## Remote I/O R3 Series

### DC VOLTAGE OUTPUT MODULE

(4 points, isolated, tension clamp terminal block)



### MODEL: R3S-YV4[1][2]

#### ORDERING INFORMATION

- Code number: R3S-YV4[1][2]
- Specify a code from below for each of [1] and [2].  
(e.g. R3S-YV4W/Q)
- Specify the specification for option code /Q  
(e.g. /C01/SET)

#### NO. OF CHANNELS

4: 4

#### [1] COMMUNICATION MODE

S: Single

W: Dual

#### [2] OPTIONS

blank: none

/Q: With options (specify the specification)

#### SPECIFICATIONS OF OPTION: Q (multiple selections)

COATING (For the detail, refer to our web site.)

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

EX-FACTORY SETTING

/SET: Preset according to the Ordering Information Sheet  
(No. ESU-8372)

#### GENERAL SPECIFICATIONS

Connection

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

**Output:** Separable tension clamp terminal (applicable wire

size: 0.2 to 1.5 mm<sup>2</sup>, stripped length 10 mm)

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

**Isolation:** Output 1 to output 2 to output 3 to output 4 to internal bus or internal power

**Output range:** Selectable with the side DIP SW

**Output hold function:** Setting for communication error with 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:** Green LED turns on in normal operating conditions.

#### OUTPUT SPECIFICATIONS

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

**Load resistance:** 10 kΩ min.

■ **Wide Span:** -10 - +10 V, -5 - +5 V, 0 - 10 V, 0 - 5 V, 1 - 5 V DC

**Load resistance:** 10 kΩ min.

■ **Output Range**

**Except -10 to +10 V DC:** -15 to +115 % of output range

**-10 to +10 V DC:** Approx. -11.5 to +11.5 V DC

#### 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 (Range):**

-10 - +10 V : ±0.05 %

-5 - +5 V : ±0.05 %

-1 - +1 V : ±0.05 %

0 - 10 V : ±0.05 %

0 - 5 V : ±0.1 %

1 - 5 V : ±0.1 %

0 - 1 V : ±0.1 %

**Data range:** 0 - 10000 of the output range

**Data allocation:** 4

**Current consumption:** 150 mA

**Temp. coefficient:** ±0.015 % /°C (±0.008 %/°F)

(±0.03 % /°C [±0.02 %/°F] with 0 - 5 V or 1 - 5 V range)

**Response time:** ≤ 0.2 sec. (0 - 90 %)

**Insulation resistance:** ≥ 100 MΩ with 500 V DC

**Dielectric strength:** 1500 V AC @ 1 minute (output 1 to output 2 to output 3 to output 4 to internal bus or internal power)

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

## FUNCTIONS

### ■ OUTPUT HOLD or OUTPUT OFF

In normal conditions, the module outputs the signal from the preferred bus A. When an error is detected, the output is switched to the data from the bus B.

#### • Output Hold

If both are in error, the module holds the signal and stands by until one of the communications recovers.

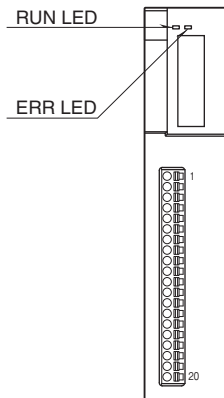
#### • Output OFF

If both are in error, the module outputs -15 % (or approx. -11.5 V) and stands by until one of the communications recovers.

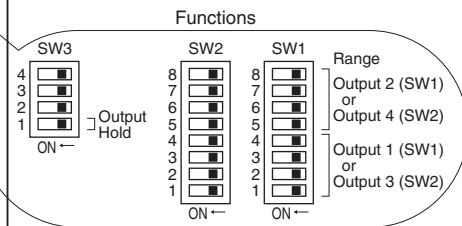
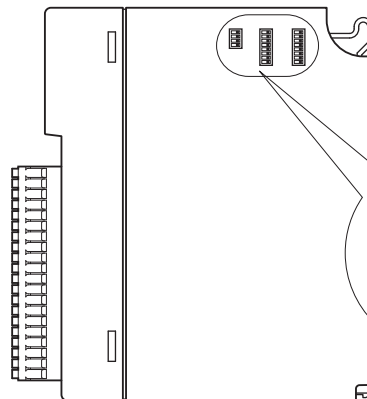
At the startup, it outputs -15 % (or approx. -11.5 V) until the communication is established and normal data is received.

## EXTERNAL VIEW

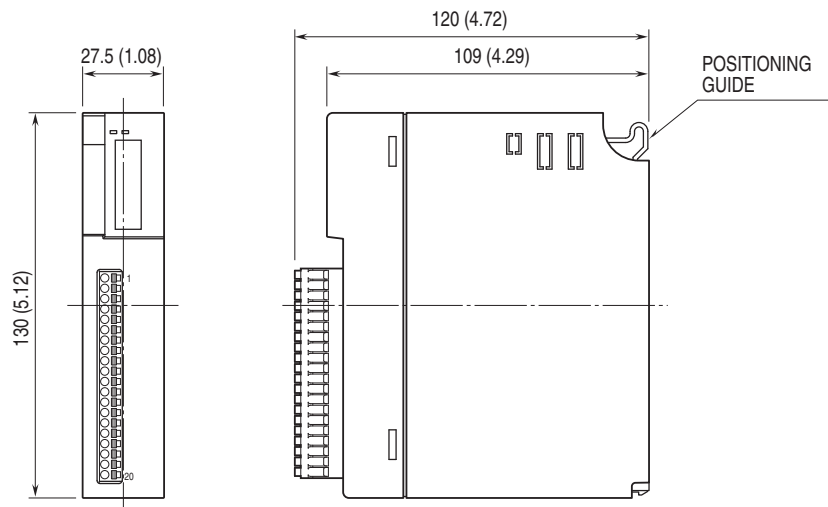
### ■ FRONT VIEW



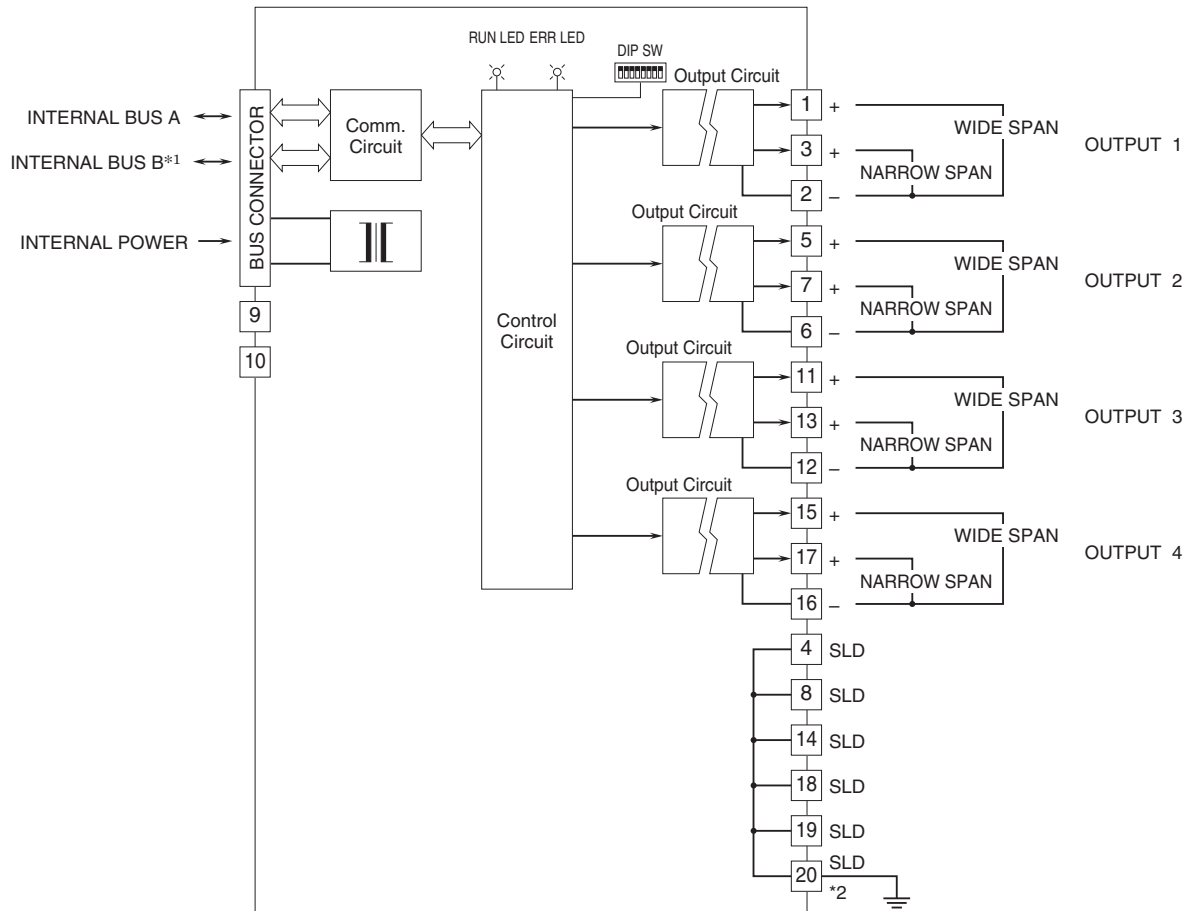
### ■ SIDE VIEW



## EXTERNAL DIMENSIONS 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 20.

Note: Do not connect wide span and narrow span simultaneously within the same channel.  
Do not use void terminals.

## OUTPUT TERMINAL ASSIGNMENT

PIN No.	FUNCTION
1	VH1
2	COM1
3	VL1
4	SLD
5	VH2
6	COM2
7	VL2
8	SLD
9	NC
10	NC
11	VH3
12	COM3
13	VL3
14	SLD
15	VH4
16	COM4
17	VL4
18	SLD
19	SLD
20	SLD



Specifications are subject to change without notice.