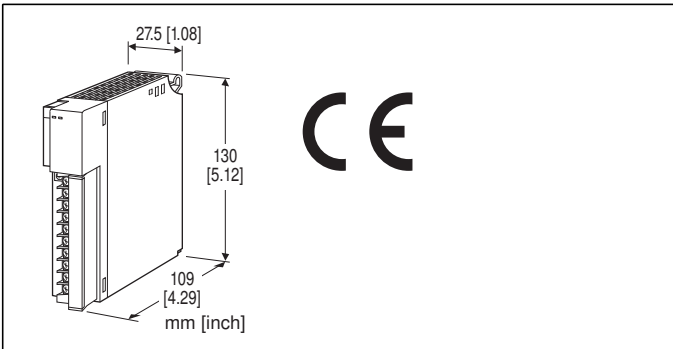


Remote I/O R3 Series

DC VOLTAGE OUTPUT MODULE

(4 points, isolated)



MODEL: R3-YV4[1][2]

ORDERING INFORMATION

- Code number: R3-YV4[1][2]
Specify a code from below for each of [1] and [2].
(e.g. R3-YV4W/CE/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 (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 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: M3 separable screw terminal (torque 0.5 N·m)

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

Screw terminal: Nickel-plated steel

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: $\geq 100 \text{ M}\Omega$ 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)

STANDARDS & APPROVALS

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

FUNCTIONS

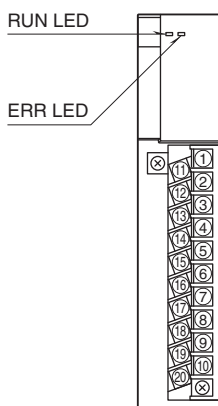
■ **OUTPUT HOLD or OUTPUT OFF**
 In normal conditions, the module outputs the signal from the preferred bus A. When an error is detected, the output is switched to the data from the bus B.

- **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.

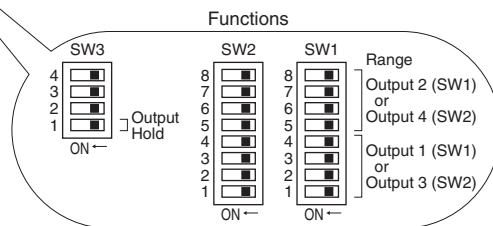
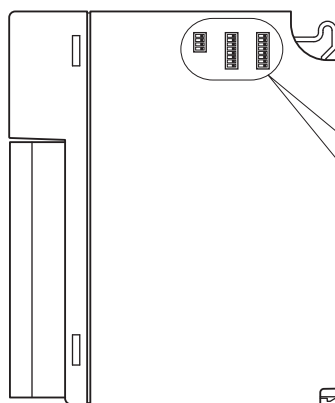
At the startup, it outputs -15 % (or approx. -11.5 V) until the communication is established and normal data is received.

EXTERNAL VIEW

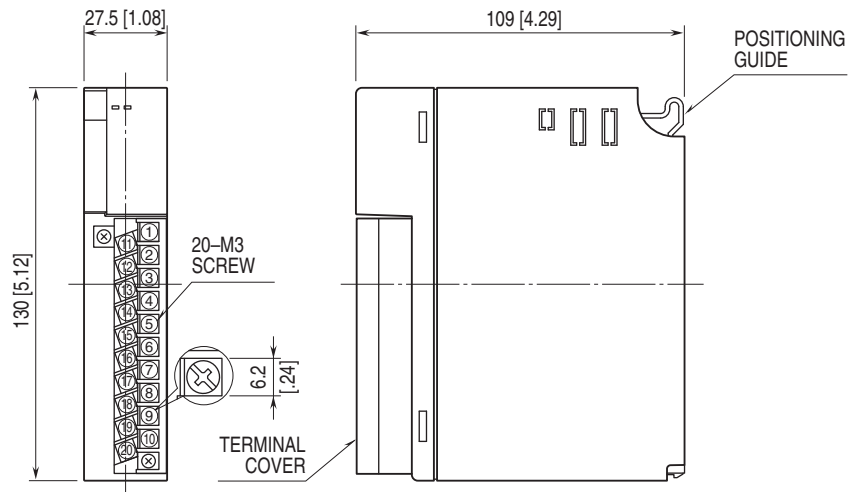
■ FRONT VIEW



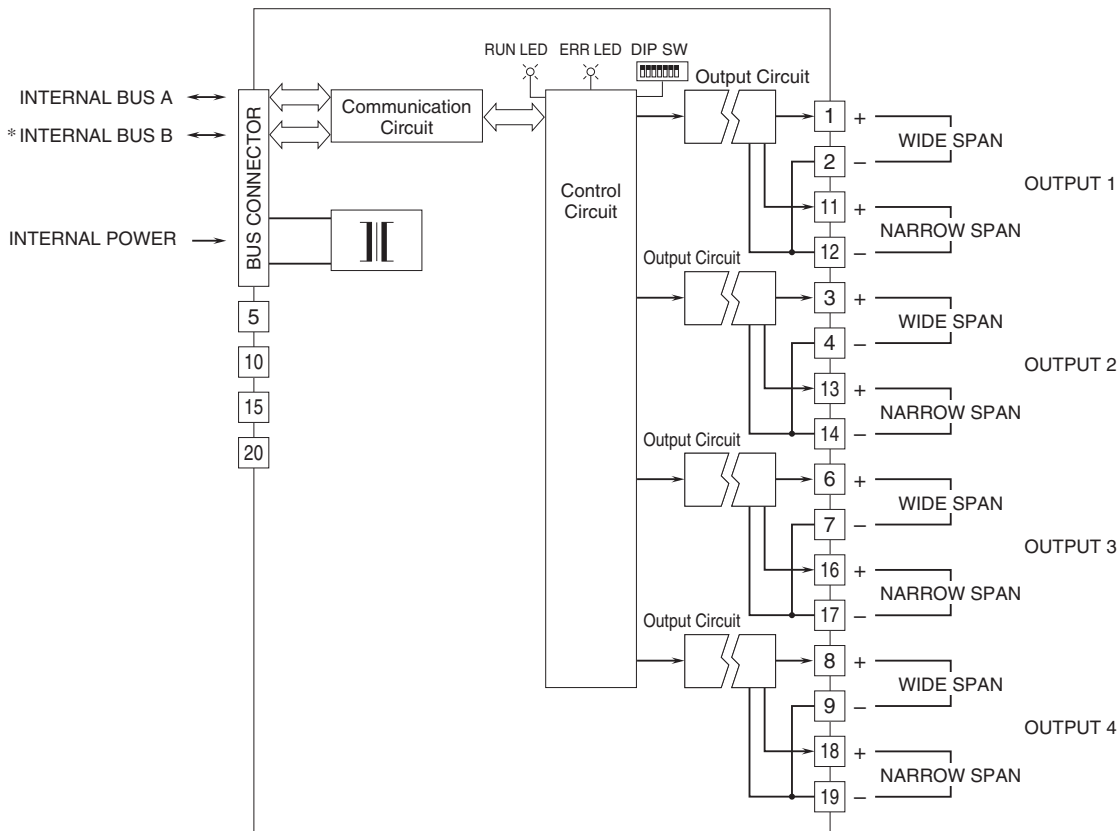
■ SIDE VIEW



EXTERNAL DIMENSIONS & 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.