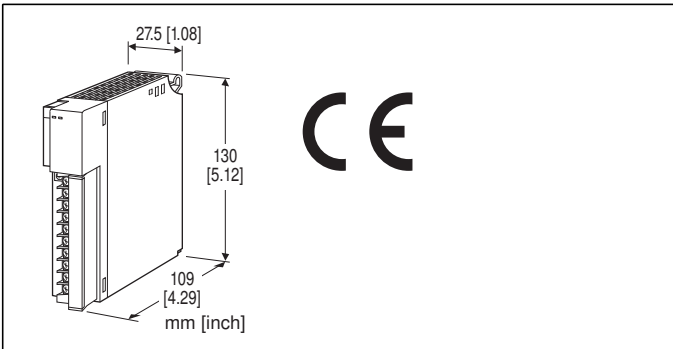


Remote I/O R3 Series

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 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-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.

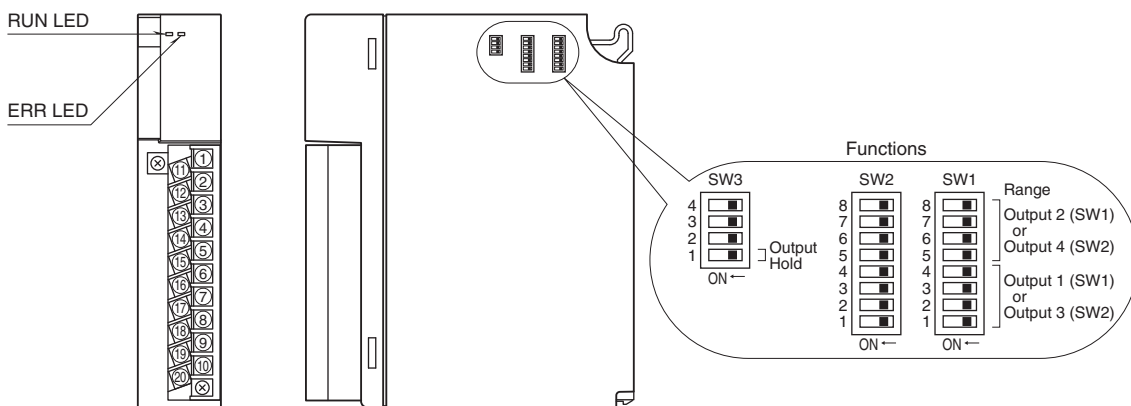
- **Output Hold**
 If both are in error, the module holds the signal and stands by until one of the communications recovers.
- **Output OFF**
 If both are in error, the module outputs -15 % (or approx. -11.5 V) and stands by until one of the communications recovers.

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

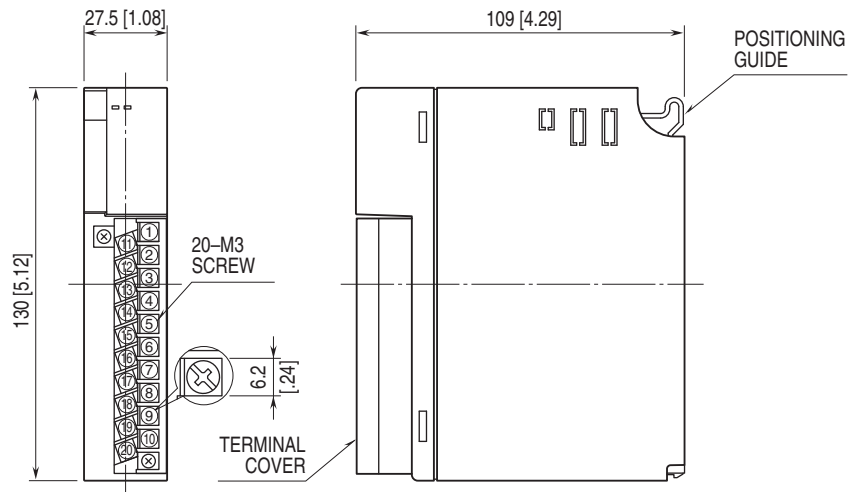
EXTERNAL VIEW

■ FRONT VIEW

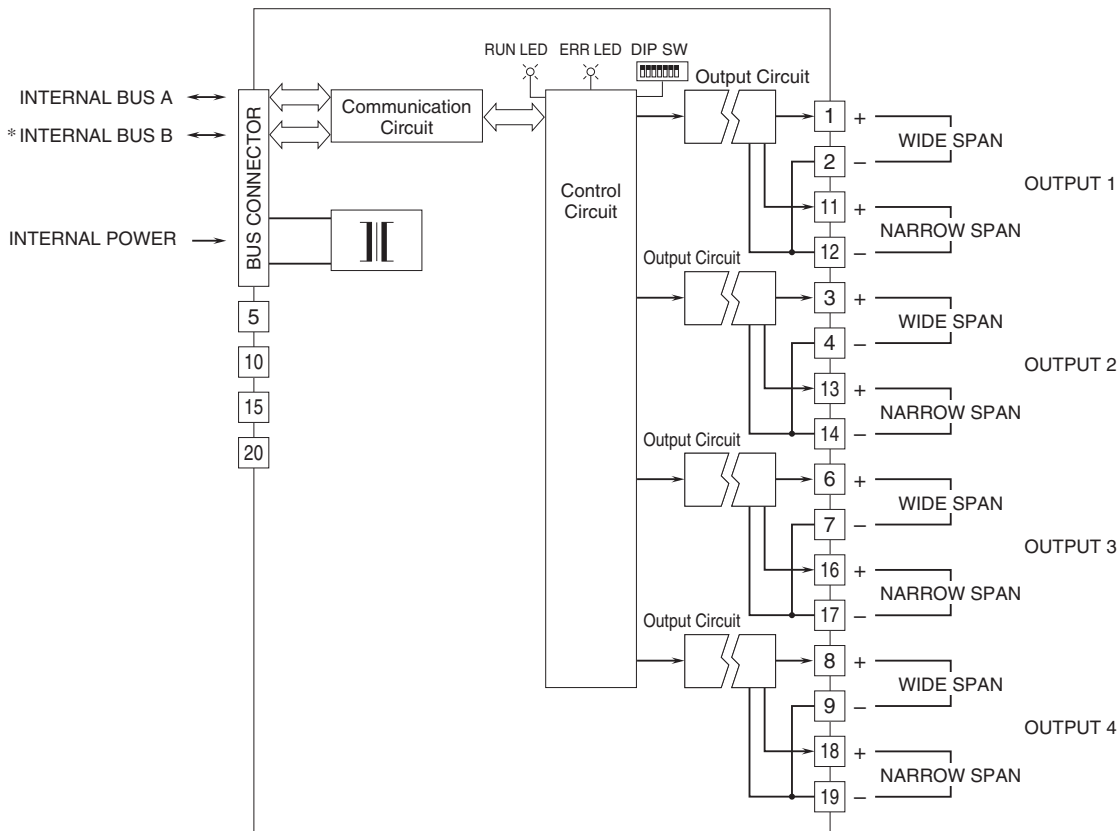
■ SIDE VIEW



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.