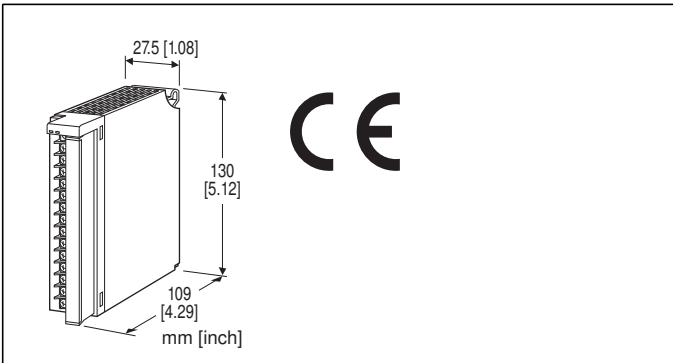


## Remote I/O R3 Series

### DC VOLTAGE OUTPUT MODULE

(8 points, isolated)



### MODEL: R3-YV8[1][2]

#### ORDERING INFORMATION

- Code number: R3-YV8[1][2]
- Specify a code from below for each of [1] and [2].  
(e.g. R3-YV8W/CE/Q)
- Specify the specification for option code /Q  
(e.g. /C01/SET)

#### NO. OF CHANNELS

8: 8

#### [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-8396)

#### 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 output 5 to output 6 to output 7 to output 8 to internal bus or internal power

**Output range:** Selectable with the side DIP SW per 4 points  
**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:** 250 g (0.55 lb)

#### PERFORMANCE

**Conversion accuracy:** ±0.1 %

(±0.2 % with 0 - 5 V or 1 - 5 V range)

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

**Data allocation:** 8

**Current consumption:** 200 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:** 1000 V AC @ 1 minute

(output 1 to output 2 to output 3 to output 4 to output 5 to output 6 to output 7 to output 8 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.

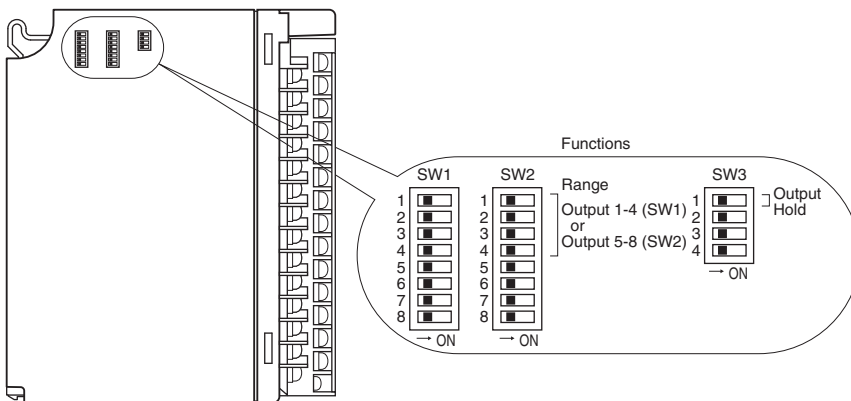
#### • Output OFF

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

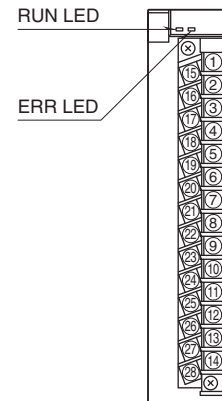
At the startup, it outputs -15 % (or approx. -11.5 V) until the communication is established and normal data is received.

## EXTERNAL VIEW

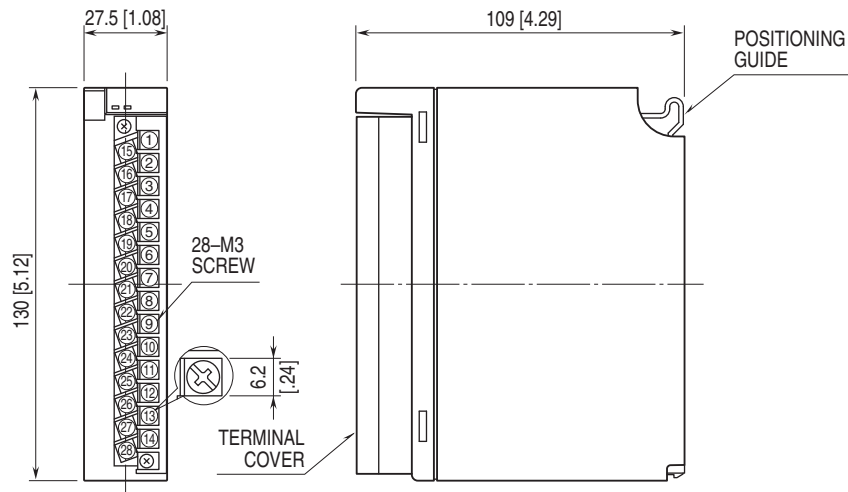
### ■ SIDE VIEW



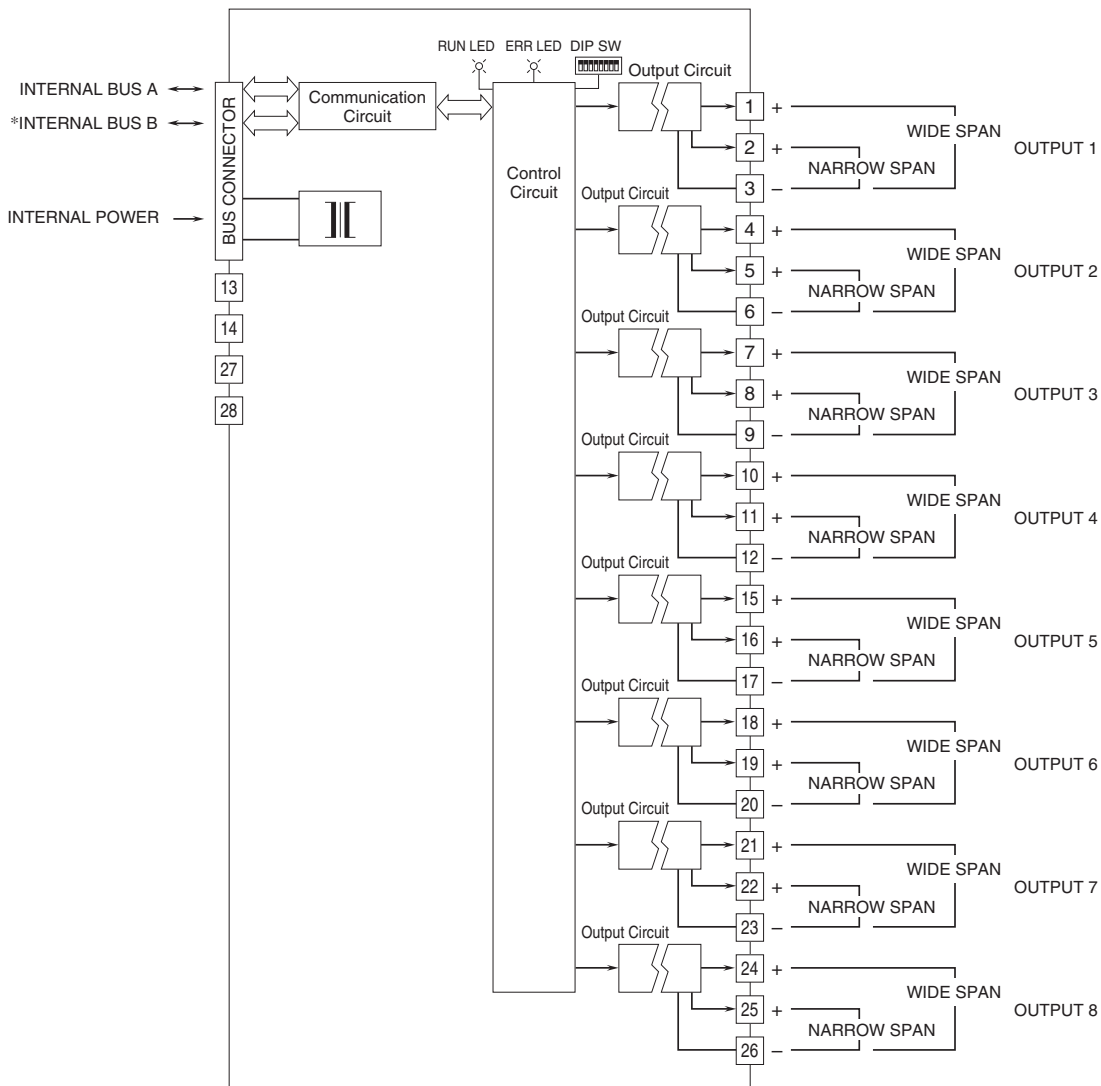
### ■ FRONT VIEW



## 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.