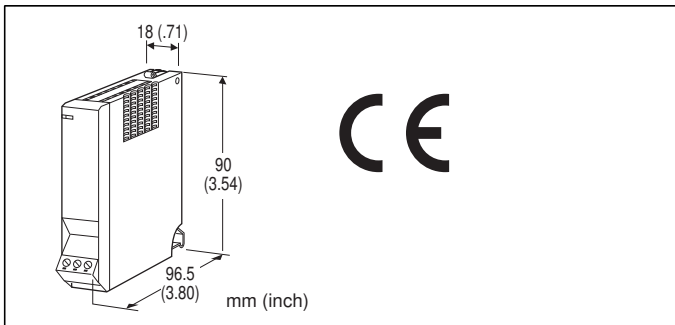


## Remote I/O R5 Series

### DC VOLTAGE OUTPUT MODULE



### MODEL: R5-YV[1][2][3]

#### ORDERING INFORMATION

- Code number: R5-YV[1][2][3]
- Specify a code from below for each [1] through [3]. (e.g. R5-YV2W/Q)
- Specify the specification for option code /Q (e.g. /C01)

#### [1] NO. OF CHANNELS

- 1: 1
- 2: 2

#### [2] COMMUNICATION MODE

- S: Single
- W: Dual

#### [3] OPTIONS

##### Other Options

- blank: none
- /Q: Option other than the above (specify the specification)

#### SPECIFICATIONS OF OPTION: Q

##### COATING (For the detail, refer to M-System's web site.)

- /C01: Silicone coating
- /C02: Polyurethane coating
- /C03: Rubber coating

#### GENERAL SPECIFICATIONS

##### Connection

- Internal bus:** Via the Installation Base (model: R5-BS)
- Output:** Euro type connector terminal
- Wire size AWG24-12 (0.2 - 2.5 mm<sup>2</sup>), stripped length 7 mm
- Internal power:** Via the base (model: R5-BS)

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

**Output range:** 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.

#### 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: R5-BS)
- Weight:** 100 g (3.53 oz)

#### PERFORMANCE

##### Output range v.s. conversion accuracy

(Narrow span) -1 - +1 V DC : ±0.1 (%)

0 - 1 V DC : ±0.1

(Wide span) -10 - +10 V DC : ±0.05

-5 - +5 V DC : ±0.05

0 - 10 V DC : ±0.05

0 - 5 V DC : ±0.05

1 - 5 V DC : ±0.05

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

**Data allocation:** 1 (2 for 2-channel type)

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

**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 internal bus or internal power)

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

#### STANDARDS & APPROVALS

##### CE conformity:

EMC Directive (2004/108/EC)

EMI EN 61000-6-4: 2007

EMS EN 61000-6-2: 2005



**FUNCTIONS**

**Output hold function:**

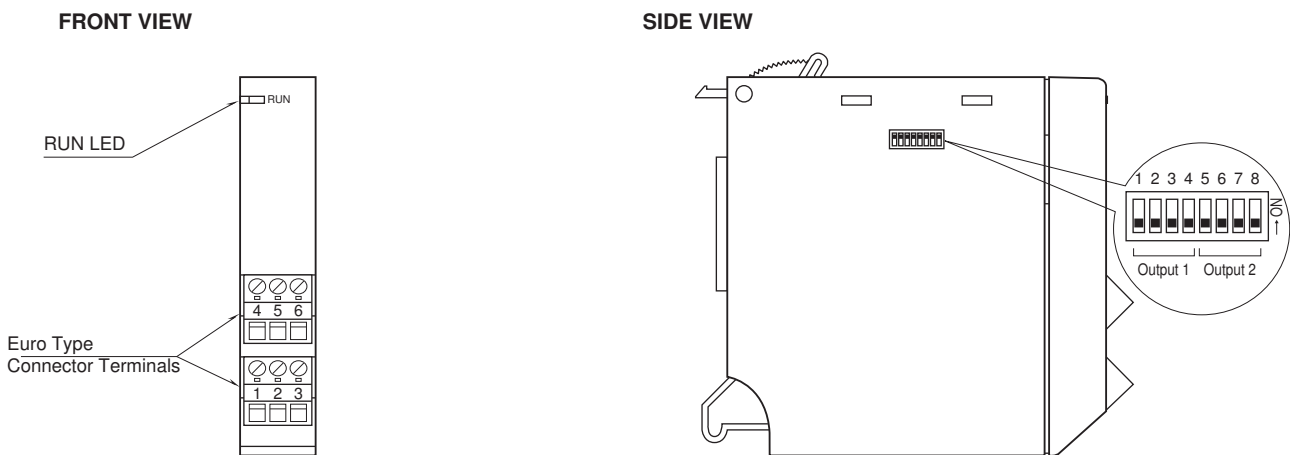
In normal conditions, the module outputs the signal from the preferred bus A.

When an error is detected, the output is switched to the data from the bus B.

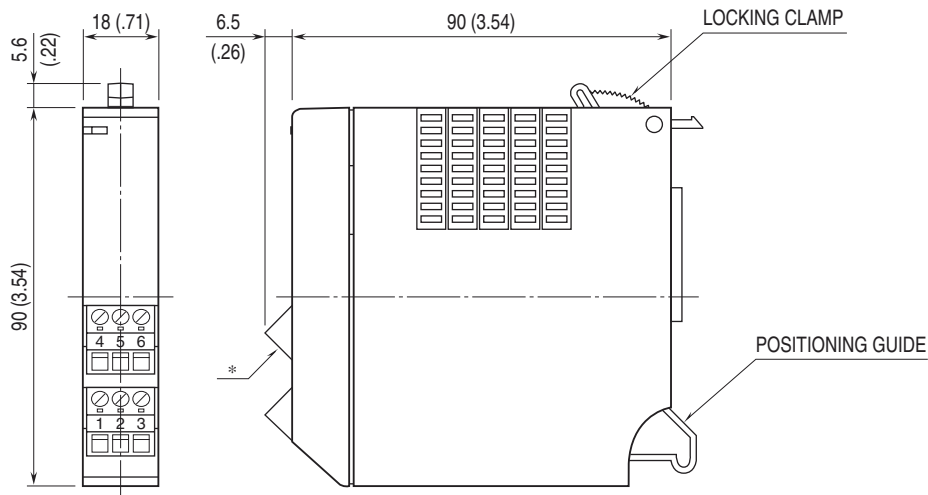
If both are in error, the module holds the signal and stands by until one of the communications recovers.

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

**EXTERNAL VIEW**



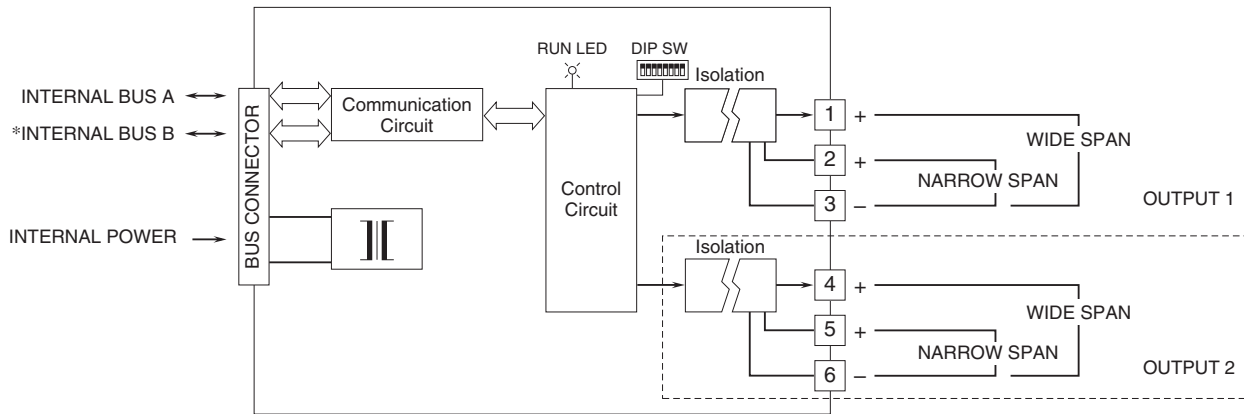
**EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)**



\*Terminal block (Terminals 4, 5 and 6) provided only with 2-ch. option.



**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



\*For dual redundant communication.

NOTE: Connect either wide or narrow span terminals for each channel.  
The section enclosed by broken line is with 2-ch. option.



Specifications are subject to change without notice.

