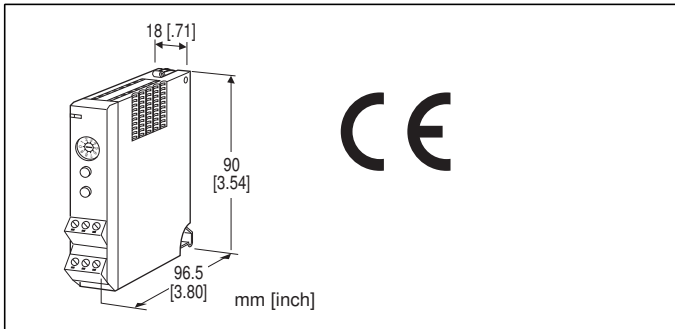


Remote I/O R5 Series

DC VOLTAGE INPUT MODULE

(re-transmitted output)



MODEL: R5-SV1A[1][2]

ORDERING INFORMATION

- Code number: R5-SV1A[1][2]
- Specify a code from below for each of [1] and [2].
(e.g. R5-SV1AW/Q)
- Specify the specification for option code /Q
(e.g. /C01)

NO. OF CHANNELS

1: 1 channel

OUTPUT

Current

A: 4 - 20 mA DC (Load resistance 600 Ω max.)

[1] COMMUNICATION MODE

S: Single
W: Dual

[2] OPTIONS

blank: none
/Q: With options (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)

I/O: Euro type connector terminal
(Applicable wire size: 0.2 - 2.5 mm² (AWG24 - 12),
stripped length 7 mm)

Internal power: Via the base (model: R5-BS)

Isolation: Input to output to internal bus or internal power
Zero/Span adj. mode selector: Rotary switch; monitor mode,
adj. mode and simulated output mode selectable

Input 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.

INPUT SPECIFICATIONS

- **Narrow Span:** -1 - +1 V, 0 - 1 V DC
Input resistance: 100 kΩ min.
- **Wide Span:** -10 - +10 V, -5 - +5 V,
0 - 10 V, 0 - 5 V, 1 - 5 V DC
Input resistance: 1 MΩ min.

OUTPUT SPECIFICATIONS

Operational range: Approx. 0 - 24 mA 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 (0.22 lb)

PERFORMANCE

Conversion accuracy
Input: ±0.05 %
Output: ±0.1 % of the retransmitted range + input
conversion accuracy
Data range: 0 - 10000 of the input range
Data allocation: 1
Temp. coefficient
Input: ±0.015 %/°C (±0.008 %/°F)
Output: ±0.02 %/°C (±0.01 %/°F)
Response time: ≤ 0.2 sec. (0 - 90 %)
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 1500 V AC @ 1 minute (input to output
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

• Zero/Span Adjustment Modes

Monitor Mode

Re-transmits the input signal as output in proportion.

Output 0 % Adjustment Mode

Adjusts the 0 % output signal using the front UP/DOWN buttons, in monitoring the output value with a multimeter. SW1 through SW3 switch the internal increments by 1, 5 and 10.

Output 100 % Adjustment Mode

Adjusts the 100 % output signal using the front UP/DOWN buttons, in monitoring the output value with a multimeter. SW4 through SW6 switch the internal increments by 1, 5 and 10.

Simulated Output Mode

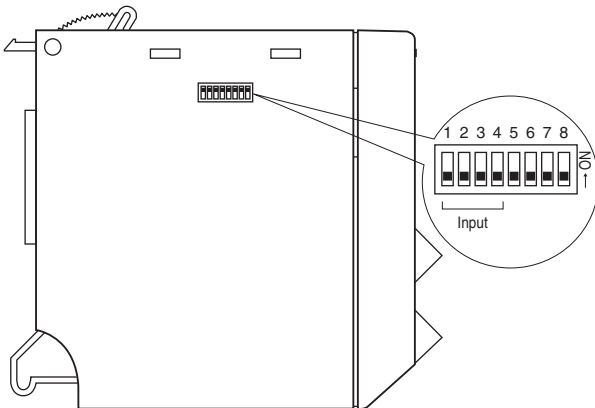
Outputs the simulated signals of 0 %, 50 % and 100 %.

• How to Operate

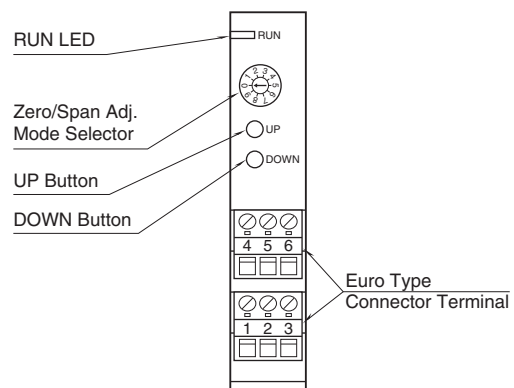
- 1) Start up in Monitor Mode (SW position = 0) and wait for 2 or 3 seconds.
- 2) Switch to another mode and go through the adjustments.
- 3) Reset the switch to the position '0' so that the new setting is stored in the internal memory.

EXTERNAL VIEW

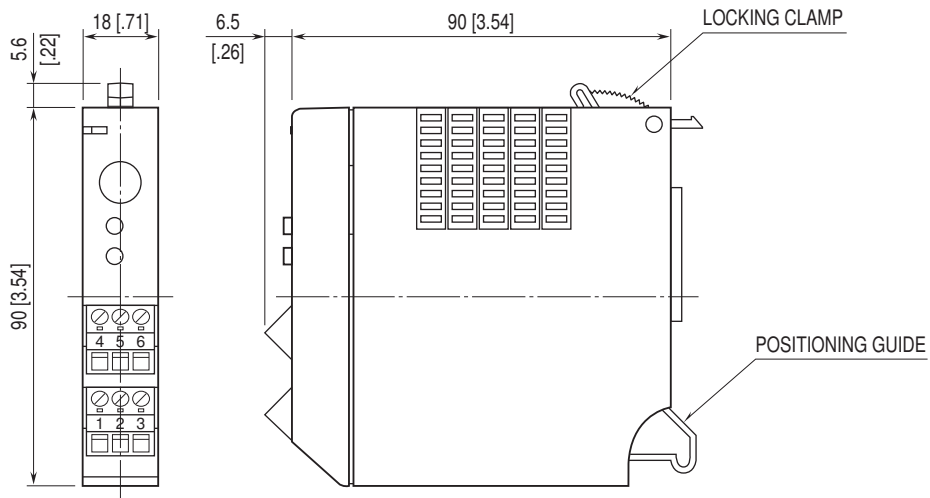
■ SIDE VIEW



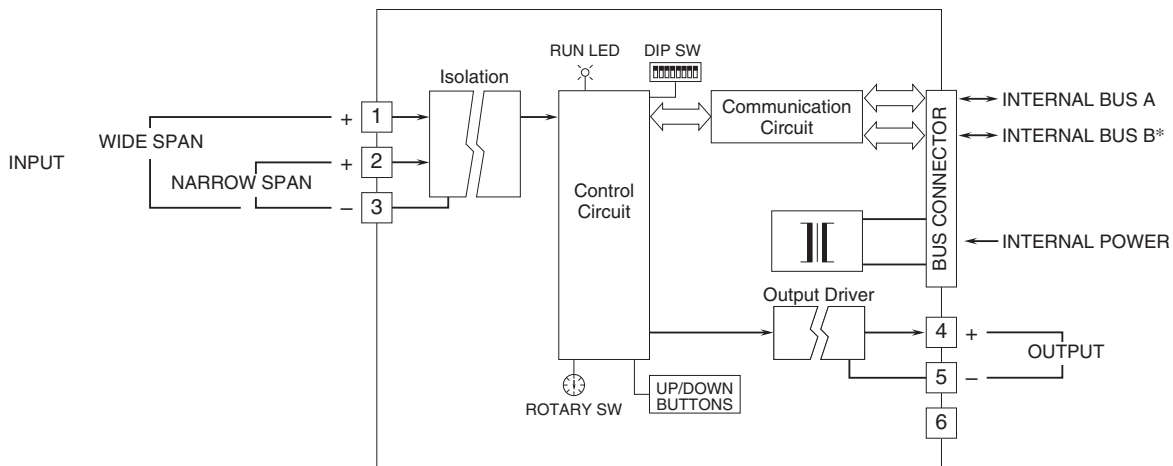
■ FRONT VIEW



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.