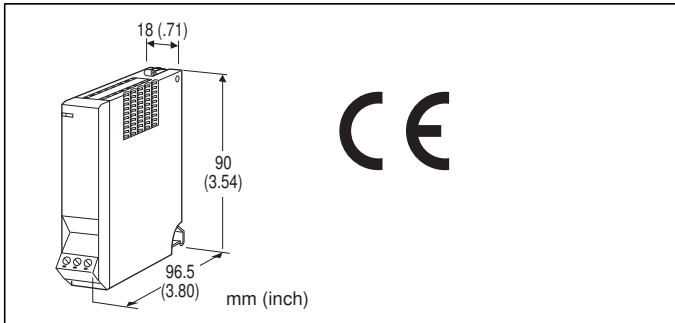


Remote I/O R5 Series

RTD INPUT MODULE



MODEL: R5-RS[1][2][3]

ORDERING INFORMATION

- Code number: R5-RS[1][2][3]
- Specify a code from below for each [1] through [3]. (e.g. R5-RS2W/Q)
- Specify the specification for option code /Q (e.g. /C01)

[1] NO. OF CHANNELS

- 1: 1 channel
- 2: 2 channels

[2] COMMUNICATION MODE

- S: Single
- W: Dual

[3] 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)
 - Input:** Euro type connector terminal
 - Wire size AWG24-12 (0.2 - 2.5 mm²), stripped length 7 mm
 - Internal power:** Via the base (model: R5-BS)
 - Isolation:** Input 1 to input 2 to internal bus or internal power

- Sensor type:** Selectable with the side DIP SW
- Temperature unit:** °C, °F or absolute temperature selectable with the side DIP SW
- Burnout detection:** Upscale or downscale selectable with the side DIP SW
- Linearization:** Standard
- 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

- Maximum leadwire resistance:** 200 Ω per wire (3-wire)
- Sensing current:** ≤ 1 mA
- Temperature range**

RTD	°C	
	USABLE RANGE	CONFORMANCE RANGE
Cu 10 @25°C	-212 to +312	-50 to +250
Cu 50	-100 to +200	-50 to +150
JPt 100 (JIS '89)	-236 to +560	-200 to +510
Pt 100 (JIS '89)	-240 to +900	-200 to +660
Pt 100 (JIS'97,IEC)(*)	-240 to +900	-200 to +850
Pt 1000	-240 to +900	-200 to +850
Pt 50Ω (JIS '81)	-236 to +700	-200 to +649
Ni 100	-100 to +252	-80 to +250
Ni 508.4Ω	-100 to +332	-50 to +200
RTD	°F	
	USABLE RANGE	CONFORMANCE RANGE
Cu 10 @25°C	-350 to +594	-58 to +482
Cu 50	-148 to +392	-58 to +302
JPt 100 (JIS '89)	-393 to +1040	-328 to +950
Pt 100 (JIS '89)	-400 to +1652	-328 to +1220
Pt 100 (JIS'97,IEC)(*)	-400 to +1652	-328 to +1562
Pt 1000	-400 to +1652	-328 to +1562
Pt 50Ω (JIS '81)	-393 to +1292	-328 to +1200
Ni 100	-148 to +486	-112 to +482
Ni 508.4Ω	-148 to +630	-58 to +392

(*) Factory setting.
Max. (upscale) or min. (downscale) value of the usable range when a burnout is detected.

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

- Conversion accuracy:** ±0.4°C (±1°F)
(±3.0°C [±5.4°F] for Cu 10)
- Data range**



°C, absolute temperature: Engineering unit value × 10
(integer)

°F: Engineering unit value (integer)

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

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

Response time: ≤ 0.2 sec. (0 - 90 %)

Burnout response time: ≤ 2 sec.

Insulation resistance: ≥ 100 MΩ with 500 V DC

Dielectric strength: 1500 V AC @ 1 minute (input 1 to input 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:

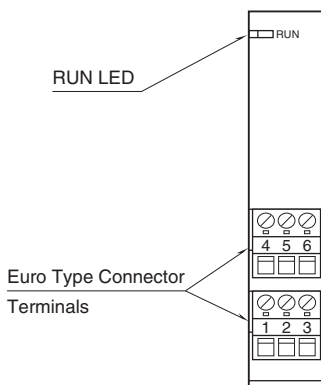
EMC Directive (2004/108/EC)

EMI EN 61000-6-4: 2007/A1: 2011

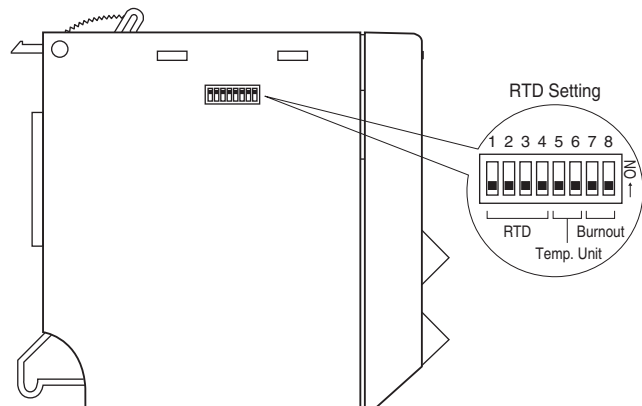
EMS EN 61000-6-2: 2005

EXTERNAL VIEW

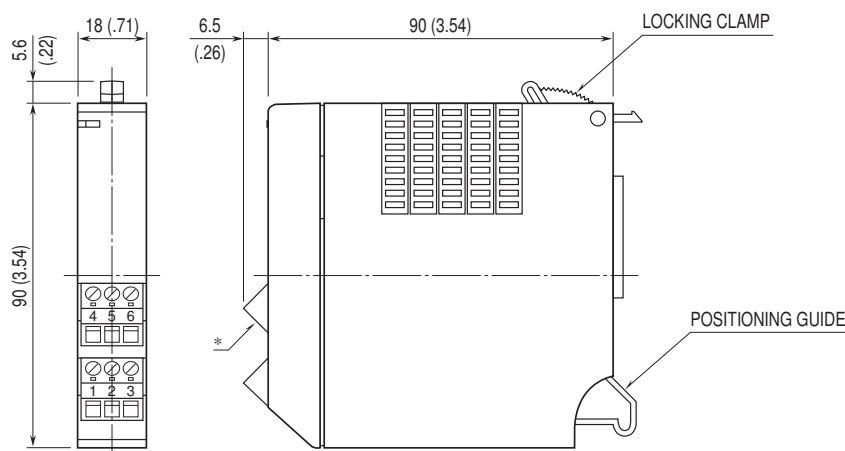
■ FRONT VIEW



■ SIDE VIEW



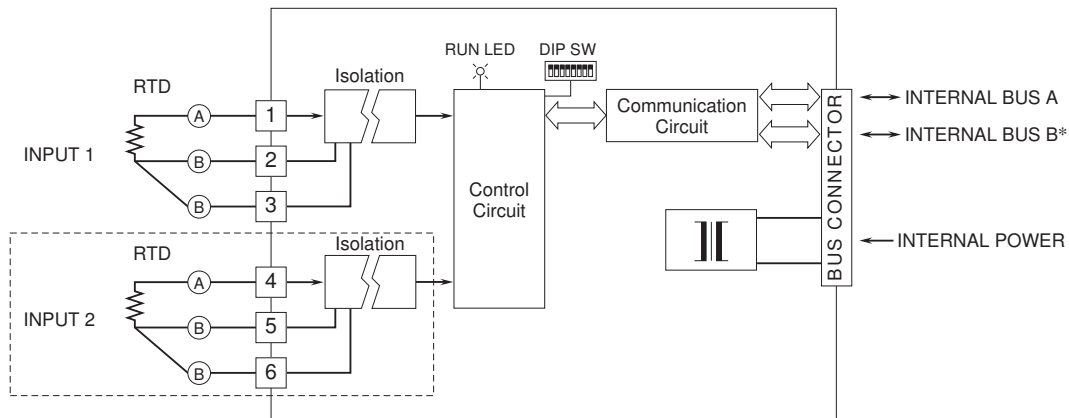
EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



*Euro type connector terminals (4, 5 and 6) provided only with 2-ch. option.



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*For dual redundant communication.
NOTE: The section enclosed by broken line is with 2-ch. option.



Specifications are subject to change without notice.