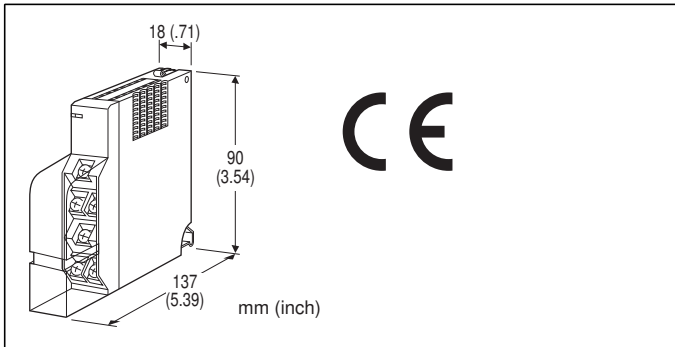


## Remote I/O R5 Series

### RTD INPUT MODULE

(screw terminal block)



### MODEL: R5T-RS[1][2][3]

#### ORDERING INFORMATION

- Code number: R5T-RS[1][2][3]
- Specify a code from below for each [1] through [3].  
(e.g. R5T-RS2W/Q)
- Specify the specification for option code /Q  
(e.g. /C01/S01)

#### [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 (multiple selections)

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

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

##### TERMINAL SCREW MATERIAL

- /S01: Stainless steel

#### GENERAL SPECIFICATIONS

##### Connection

Internal bus: Via the Installation Base  
(model: R5-BSx)

Input: M3.5 screw terminal block  
(torque 0.8 N·m)

Power supply: Via the base (model: R5-BSx)

Screw terminal: Nickel-plated steel (standard) or stainless steel

Isolation: Input 1 to input 2 to 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 508.4                 | -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 508.4                 | -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-BSx)



**Weight:** 110 g (0.24 lb)

## PERFORMANCE

**Conversion accuracy:**  $\pm 0.4^{\circ}\text{C}$  ( $\pm 1^{\circ}\text{F}$ )

( $\pm 3.0^{\circ}\text{C}$  [ $\pm 5.4^{\circ}\text{F}$ ] for Cu 10)

**Data range**

**$^{\circ}\text{C}$ , absolute temperature:** Engineering unit value  $\times 10$   
(integer)

**$^{\circ}\text{F}$ :** Engineering unit value (integer)

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

**Temp. coefficient:**  $\pm 0.015\%/^{\circ}\text{C}$  ( $\pm 0.008\%/^{\circ}\text{F}$ )

**Response time:**  $\leq 0.2$  sec. (0 - 90 %)

**Burnout response time:**  $\leq 2$  sec.

**Insulation resistance:**  $\geq 100\ \text{M}\Omega$  with 500 V DC

**Dielectric strength:** 1500 V AC @ 1 minute (input 1 to input 2 to internal power)

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

## STANDARDS & APPROVALS

**CE conformity:**

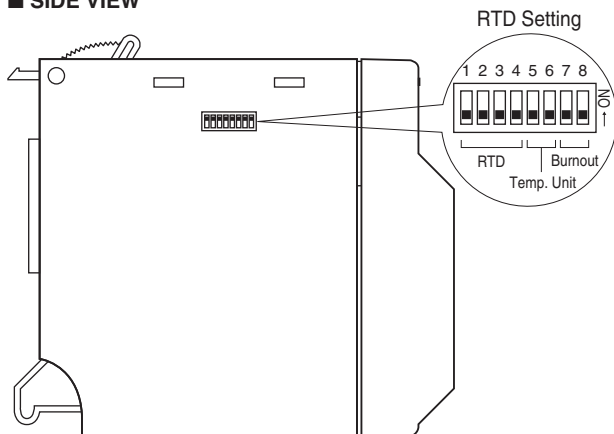
EMC Directive (2004/108/EC)

EMI EN 61000-6-4: 2007

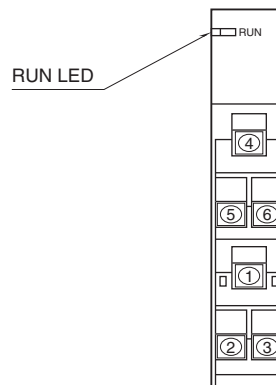
EMS EN 61000-6-2: 2005

## EXTERNAL VIEW

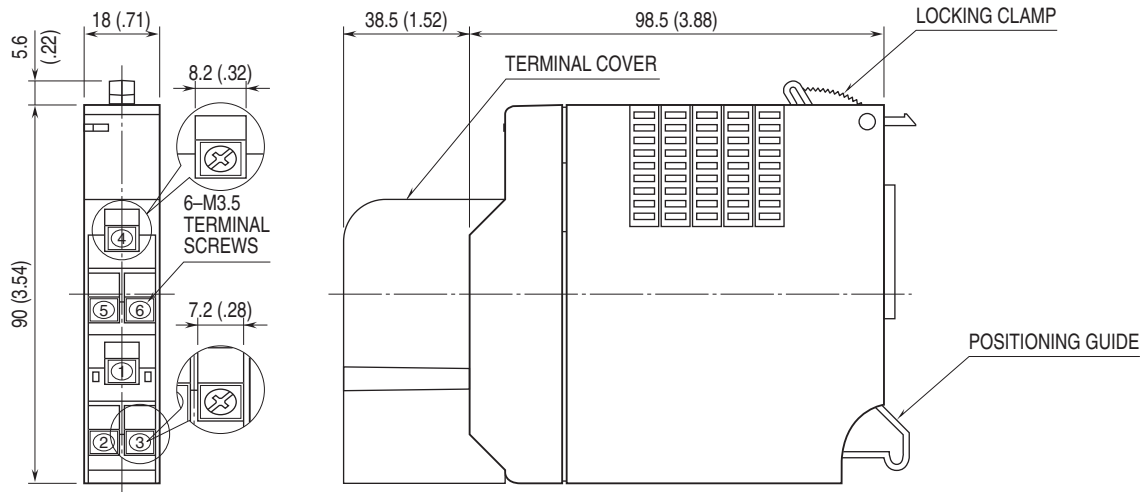
■ **SIDE VIEW**



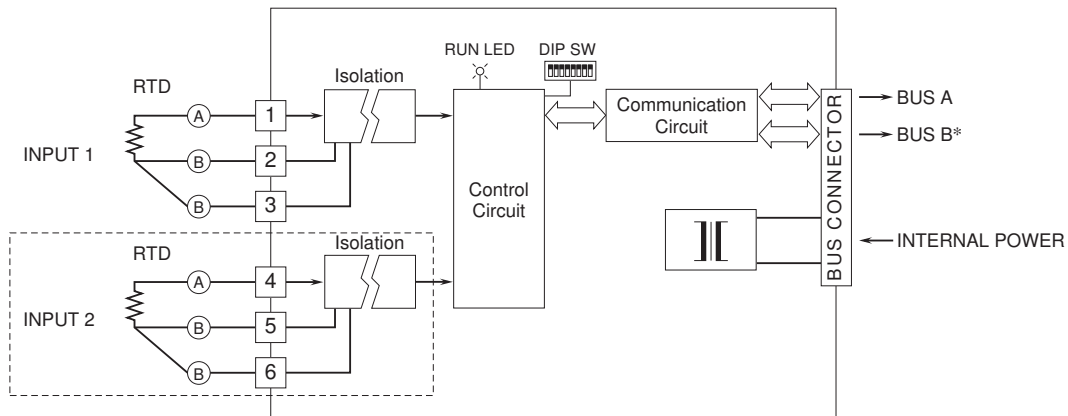
■ **FRONT VIEW**



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



**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.

