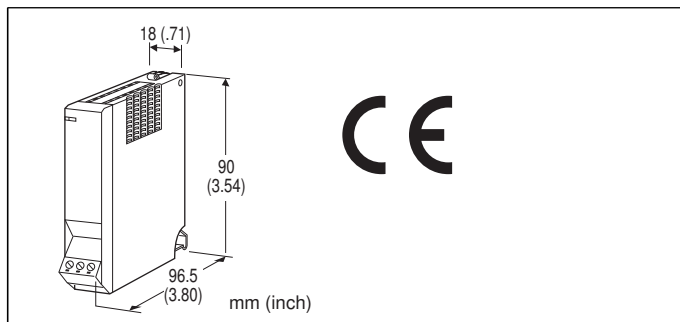


## Remote I/O R5 Series

## RTD INPUT MODULE



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

## ORDERING INFORMATION

- Code number: R5-RS[1][2]

Specify a code from below for each [1] and [2]  
(e.g. R5-RS2W)

## [1] NO. OF CHANNELS

- 1: 1 channel
- 2: 2 channels

## [2] COMMUNICATION MODE

- S: Single
- W: Dual

## GENERAL SPECIFICATIONS

## Connection

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

**Input:** Euro type connector terminal  
Wire size AWG24-12 (0.2 – 2.5 mm<sup>2</sup>)

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

**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:** 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 power)

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

power supply module)

## STANDARDS & APPROVALS

CE conformity:

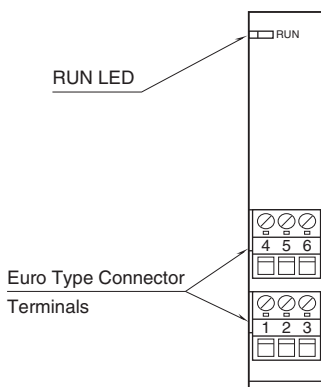
EMC Directive (2004/108/EC)

EMI EN 61000-6-4: 2007

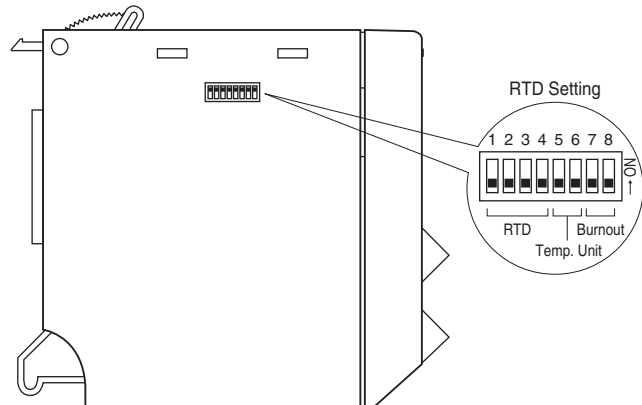
EMS EN 61000-6-2: 2005

## EXTERNAL VIEW

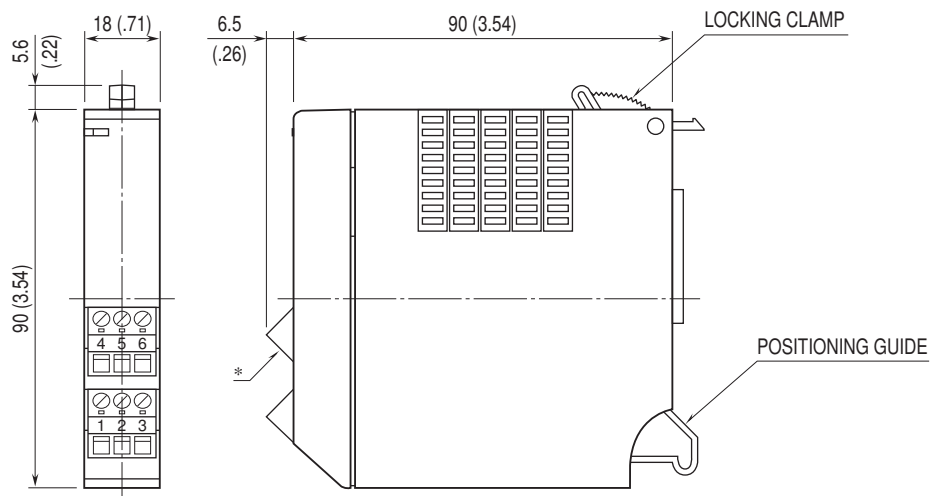
■ FRONT VIEW



■ SIDE VIEW

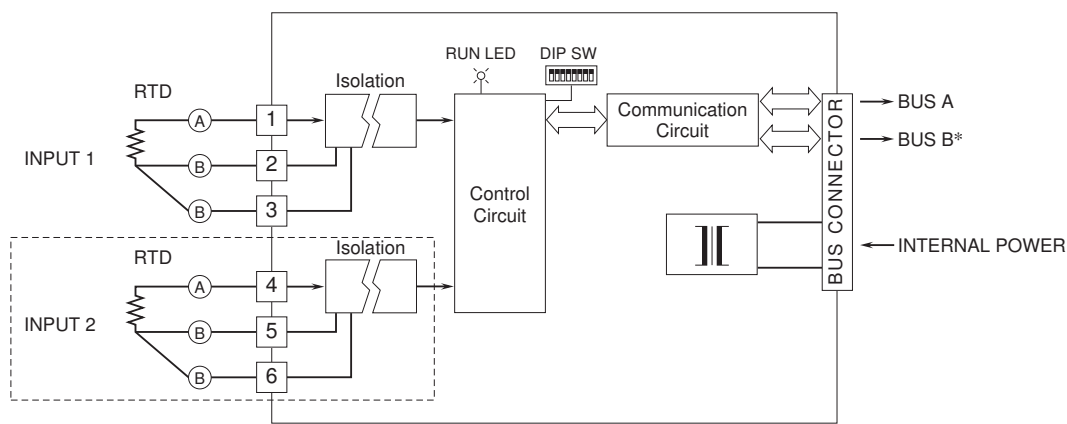


## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



\*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.