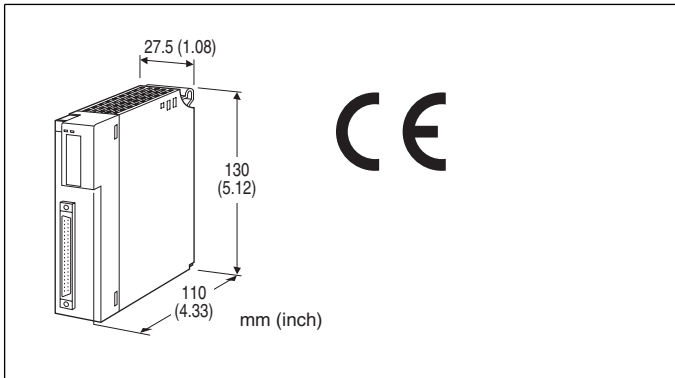


Remote I/O R3 Series

RTD INPUT MODULE

(8 points, isolated)



MODEL: R3Y-RS8[1][2]

ORDERING INFORMATION

- Code number: R3Y-RS8[1][2]
- Specify a code from below for each [1], [2]
(e.g. R3Y-RS8W/CE)

NO. OF CHANNELS

8: 8

[1] COMMUNICATION MODE

S: Single
W: Dual

[2] OPTIONS

STANDARDS & APPROVALS

blank: Without CE
/CE: CE marking

GENERAL SPECIFICATIONS

Connection

- Internal bus:** Via the Installation Base (model: R3-BSx)
- Input:** 40-pin connector (Fujitsu FCN-365P040-AU)
- Power supply:** Via the installation base (model: R3-BSx)
- Isolation:** Input 1 to input 2 to input 3 to input 4 to input 5 to input 6 to input 7 to input 8 to internal power
- Sensor type:** Selectable with the side DIP SW
(Independent types selectable per group of 4 channels.)
- Temperature unit:** °C, °F or absolute temperature selectable with the side DIP SW
- Conversion rate:** 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.

ERR indicator: Bi-color (red/green) LED;
Red with the burnout; Green in normal operating conditions.

INPUT SPECIFICATIONS

Maximum leadwire resistance: 100 Ω per wire

Sensing current: ≤ 1 mA

Temperature range

| RTD | USABLE RANGE | |
|-----------------------|--------------|---------------|
| | °C | °F |
| Pt 100 (JIS '97, IEC) | -200 to +850 | -328 to +1562 |
| Pt 100 (JIS '89) | -200 to +660 | -328 to +1220 |
| JPt 100 (JIS '89) | -200 to +510 | -328 to +950 |
| Pt 50Ω (JIS '81) | -200 to +649 | -328 to +1200 |
| Ni 100 | -80 to +250 | -112 to +482 |
| Cu 10 @25°C | -50 to +250 | -58 to +482 |
| Cu 50 | -50 to +150 | -58 to +302 |

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: R3-BSx)
- Weight:** 200 g (0.44 lbs)

PERFORMANCE

- Conversion accuracy:** ±1.0°C (±1.8°F) except ±3.0°C (±5.4°F) for Cu 10 @ 25°C
- Conversion rate:** 250 msec. or 1 sec. selectable
- Data range**
- °C, absolute temperature:** Engineering unit value × 10 (integer)
- °F:** Engineering unit value (integer)
- Data allocation:** 8
- Current consumption:** 100 mA
- Temp. coefficient:** ±0.015 %/°C (±0.008 %/°F)
- Burnout response time:** ≤ 2 sec.
- Insulation resistance:** ≥ 100 MΩ with 500 V DC
- Dielectric strength:** 500 V AC @ 1 minute
(input 1 to input 2 to input 3 to input 4 to input 5 to input 6 to input 7 to input 8 to internal power)
2000 V AC @ 1 minute (power input to FG; isolated on the power supply module)

STANDARDS & APPROVALS

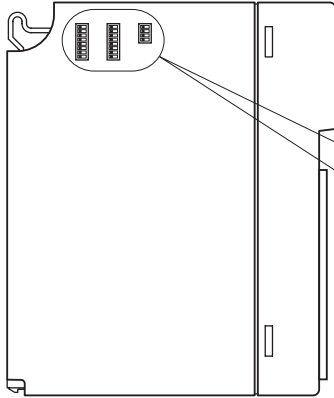
CE conformity:
EMC Directive (2004/108/EC)



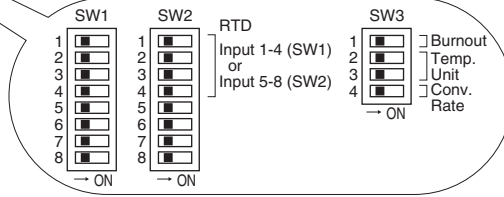
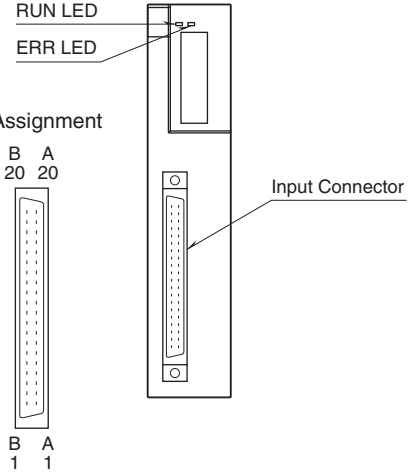
EMI EN 61000-6-4: 2007
EMS EN 61000-6-2: 2005

EXTERNAL VIEW

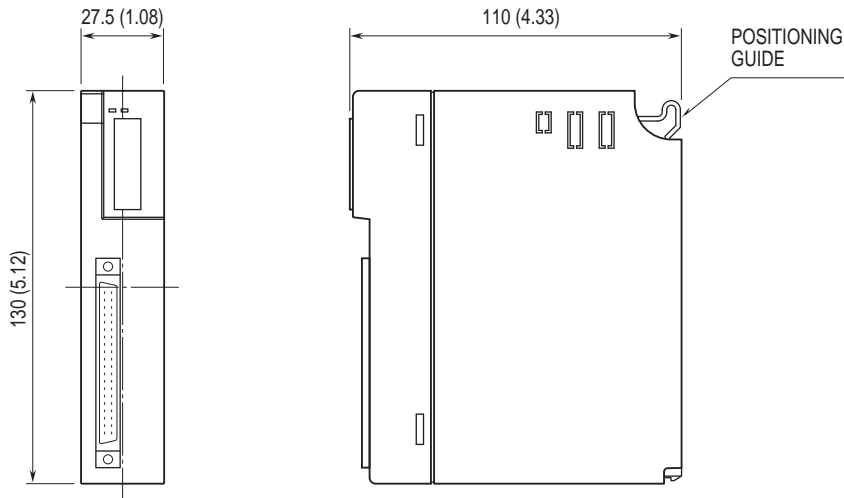
■ SIDE VIEW



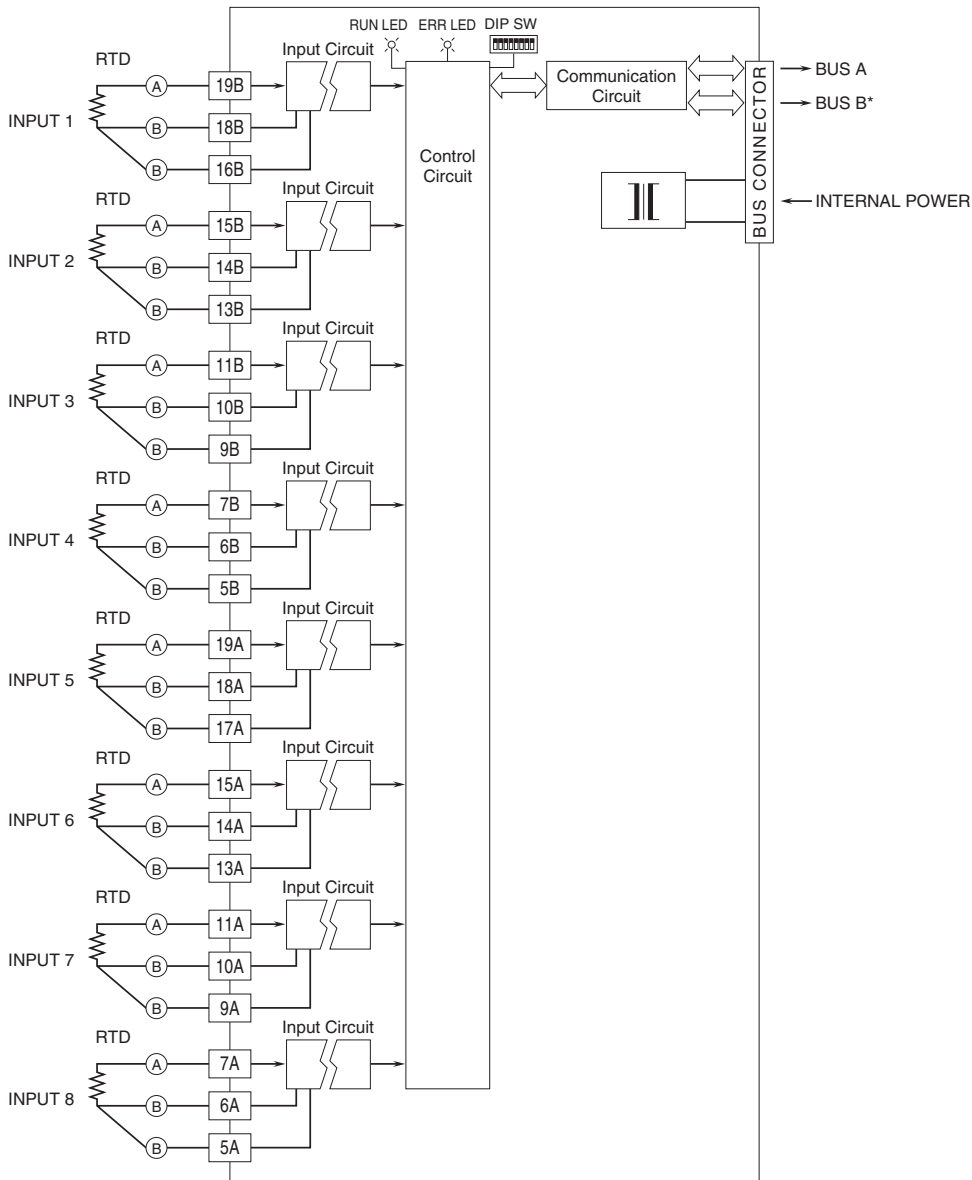
■ FRONT VIEW



DIMENSIONS unit: mm (inch)



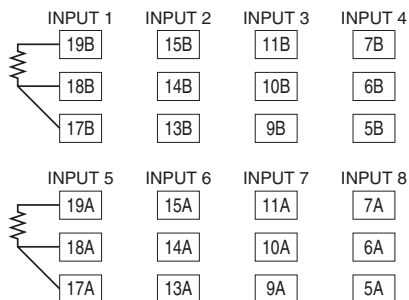
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



* For dual redundant communication.

• Unused Input Channels

Close across the unused input terminals with a resistor as shown below and set the DIP switch for an RTD. The resistance value must match the RTD type (100Ω for Pt 100, 50 Ω for Pt 50).



Unused channels left open are equal to the burnout, which turns the red ERR LED on and sets a burnout flag at the PLC or the host device.

Unused channels can be specified and set so on the PC Configurator Software (model: R3CON) without needing to connect resistors at the field terminals.



INPUT CONNECTOR (40-pin)

| PIN NO. | ASSIGNMENT | PIN NO. | ASSIGNMENT |
|---------|------------|---------|------------|
| 1A | NC | 1B | NC |
| 2A | NC | 2B | NC |
| 3A | NC | 3B | NC |
| 4A | NC | 4B | NC |
| 5A | IN8B | 5B | IN4B |
| 6A | IN8B | 6B | IN4B |
| 7A | IN8A | 7B | IN4A |
| 8A | NC | 8B | NC |
| 9A | IN7B | 9B | IN3B |
| 10A | IN7B | 10B | IN3B |
| 11A | IN7A | 11B | IN3A |
| 12A | NC | 12B | NC |
| 13A | IN6B | 13B | IN2B |
| 14A | IN6B | 14B | IN2B |
| 15A | IN6A | 15B | IN2A |
| 16A | NC | 16B | NC |
| 17A | IN5B | 17B | IN1B |
| 18A | IN5B | 18B | IN1B |
| 19A | IN5A | 19B | IN1A |
| 20A | NC | 20B | NC |



Specifications are subject to change without notice.

