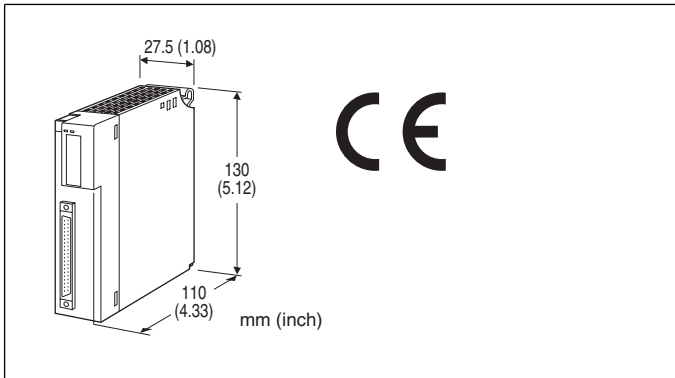


Remote I/O R3 Series

POTENTIOMETER INPUT MODULE

(8 points, isolated)



MODEL: R3Y-MS8[1][2]

ORDERING INFORMATION

- Code number: R3Y-MS8[1][2]
- Specify a code from below for each [1], [2]
(e.g. R3Y-MS8W/CE)

INPUT

Total resistance 500 Ω - 100 kΩ

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

Conversion rate: 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.

ERR indicator: Bi-color (red/green) LED;

Red with the input abnormality;

Green in normal operating conditions.

INPUT SPECIFICATIONS

Minimum span: 50 % of the total resistance range

Excitation: Approx. 0.5 V 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: R3-BSx)

Weight: 200 g (0.44 lbs)

PERFORMANCE

Conversion accuracy: Refer to the table at the end of this section.

The resolution, conversion accuracy and temperature coefficient are defined against the potentiometer's total resistance. If the actual resistance range (between the zero and span positions) is narrower than the total resistance, the values change in proportion. Using at least 50 % of the total resistance is basically recommended.

Conversion rate: 160 / 80 / 40 / 20 msec. selectable

Data range: 0 - 10000

Data allocation: 8

Current consumption: Approx. 100 mA

Temp. coefficient: ±0.015 % / °C

The resolution, conversion accuracy and temperature coefficient are defined against the potentiometer's total resistance. If the actual resistance range (between the zero and span positions) is narrower than the total resistance, the values change in proportion. Using at least 50 % of the total resistance is basically recommended.

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)

Conversion accuracy

| | CONVERSION RATE | | | |
|------------|-----------------|----------|----------|----------|
| | 160 msec. | 80 msec. | 40 msec. | 20 msec. |
| Resolution | 1/10000 | 1/5000 | 1/2500 | 1/1250 |
| Accuracy | ±0.05% | ±0.1% | ±0.2% | ±0.4% |

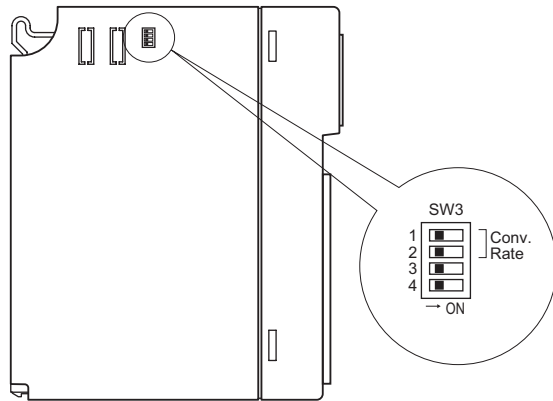


STANDARDS & APPROVALS

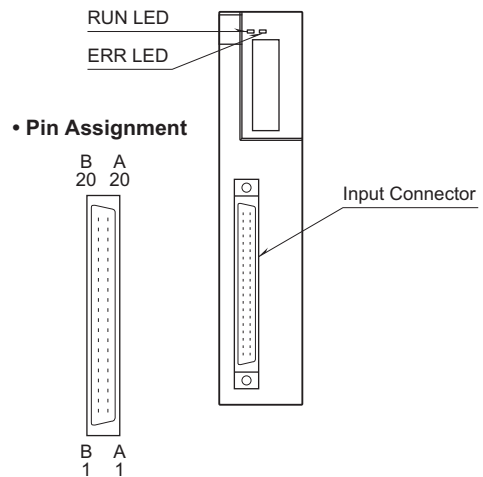
CE conformity:
 EMC Directive (2004/108/EC)
 EMI EN 61000-6-4: 2007
 EMS EN 61000-6-2: 2005

EXTERNAL VIEW

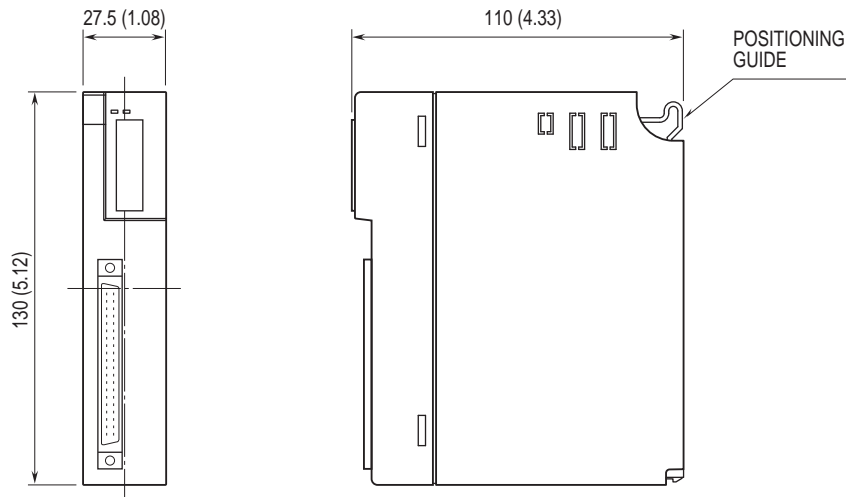
■ SIDE VIEW



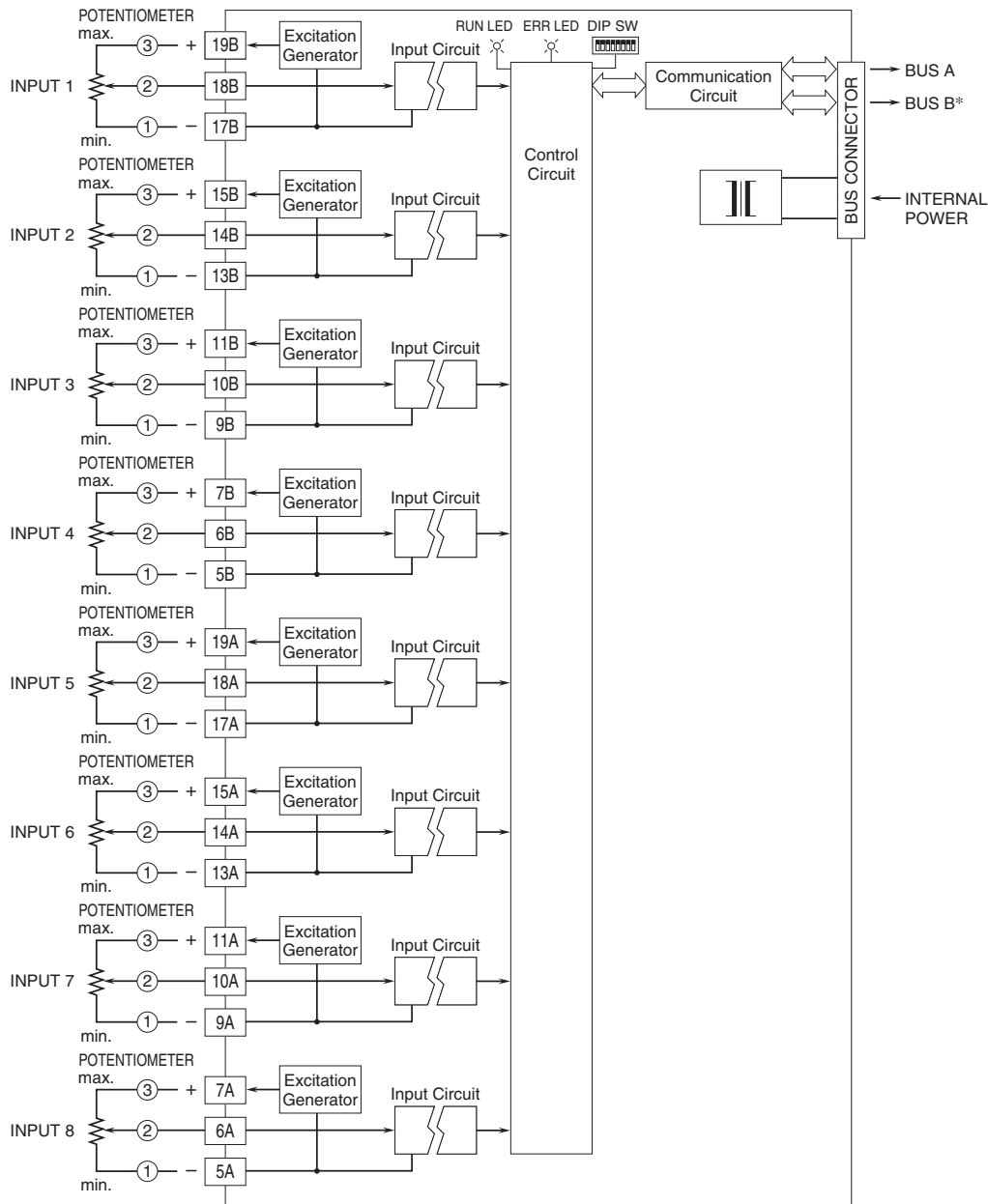
■ FRONT VIEW



DIMENSIONS unit: mm (inch)



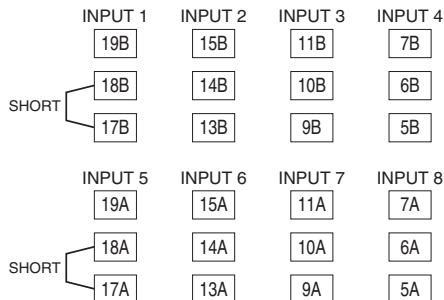
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*For dual redundant communication.

• Unused Input Channels

Close across the unused input terminals as shown below.



The input will become unstable if unused channels are left open.

Unused channels can be specified and set so on the PC Configurator Software (model: R3CON) without needing to short 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 | IN8C | 5B | IN4C |
| 6A | IN8B | 6B | IN4B |
| 7A | IN8A | 7B | IN4A |
| 8A | NC | 8B | NC |
| 9A | IN7C | 9B | IN3C |
| 10A | IN7B | 10B | IN3B |
| 11A | IN7A | 11B | IN3A |
| 12A | NC | 12B | NC |
| 13A | IN6C | 13B | IN2C |
| 14A | IN6B | 14B | IN2B |
| 15A | IN6A | 15B | IN2A |
| 16A | NC | 16B | NC |
| 17A | IN5C | 17B | IN1C |
| 18A | IN5B | 18B | IN1B |
| 19A | IN5A | 19B | IN1A |
| 20A | NC | 20B | NC |



Specifications are subject to change without notice.

