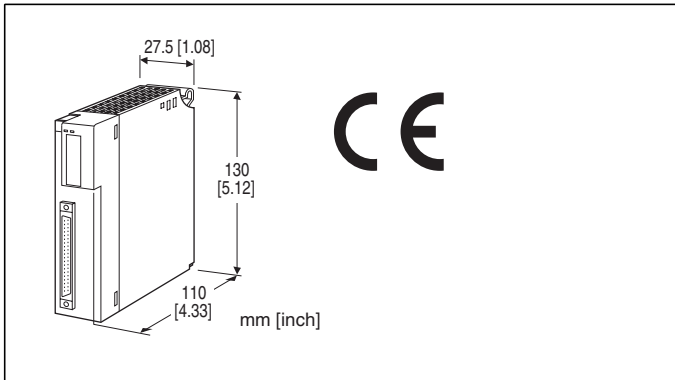


Remote I/O R3 Series

POTENTIOMETER INPUT MODULE

(8 points, isolated, connector type)



MODEL: R3Y-MS8[1][2]

ORDERING INFORMATION

- Code number: R3Y-MS8[1][2]
Specify a code from below for each of [1] and [2].
(e.g. R3Y-MS8W/CE/Q)
- Specify the specification for option code /Q
(e.g. /C01/SET)

INPUT

Total resistance 500 Ω - 100 kΩ

NO. OF CHANNELS

8: 8

[1] COMMUNICATION MODE

S: Single
W: Dual

[2] OPTIONS (multiple selections)

Standards & Approvals

blank: Without CE

/CE: CE marking

Other Options

blank: none

/Q: Option other than the above (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

EX-FACTORY SETTING

/SET: Preset according to the Ordering Information Sheet
(No. ESU-8402)

RELATED PRODUCTS

- Connector terminal block (model: CNT)
- Special cable with 40-pin connector (model: FCN)

GENERAL SPECIFICATIONS

Connection

Internal bus: Via the Installation Base (model: R3-BSx)

Input: 40-pin connector (OTAX N365P040AU

Fujitsu FCN-365P040-AU...discontinued))

Internal power: 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 bus or 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 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 lb)

PERFORMANCE

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

The resolution and conversion accuracy 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

Temperature coefficient is 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: $\geq 100 \text{ M}\Omega$ 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 bus or 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	$\pm 0.05\%$	$\pm 0.1\%$	$\pm 0.2\%$	$\pm 0.4\%$

STANDARDS & APPROVALS

EU conformity:

EMC Directive

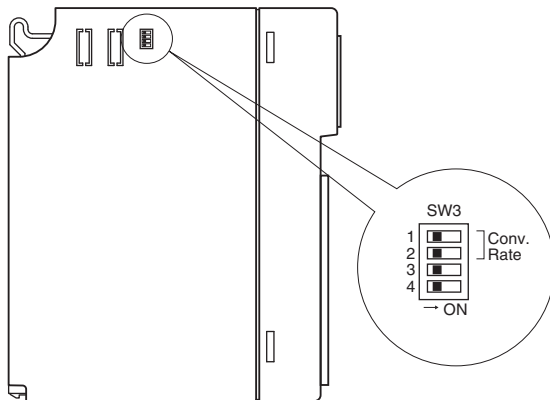
EMI EN 61000-6-4

EMS EN 61000-6-2

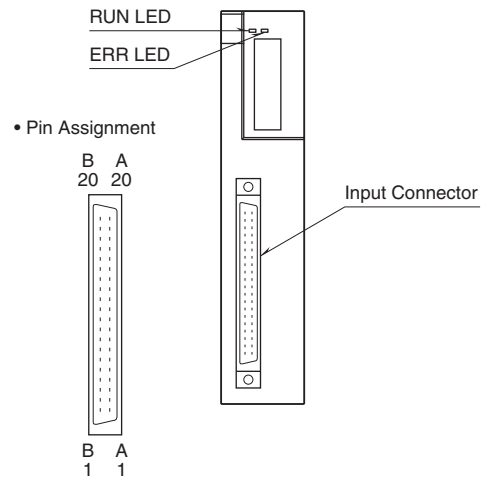
RoHS Directive

EXTERNAL VIEW

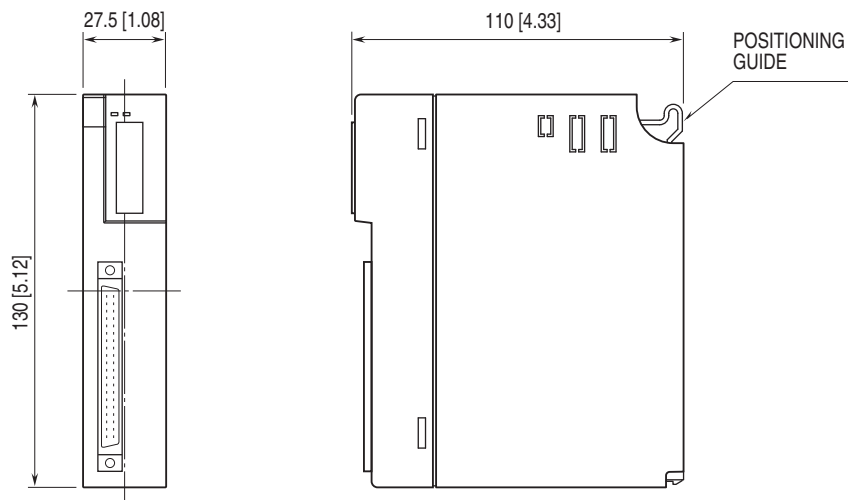
■ SIDE VIEW



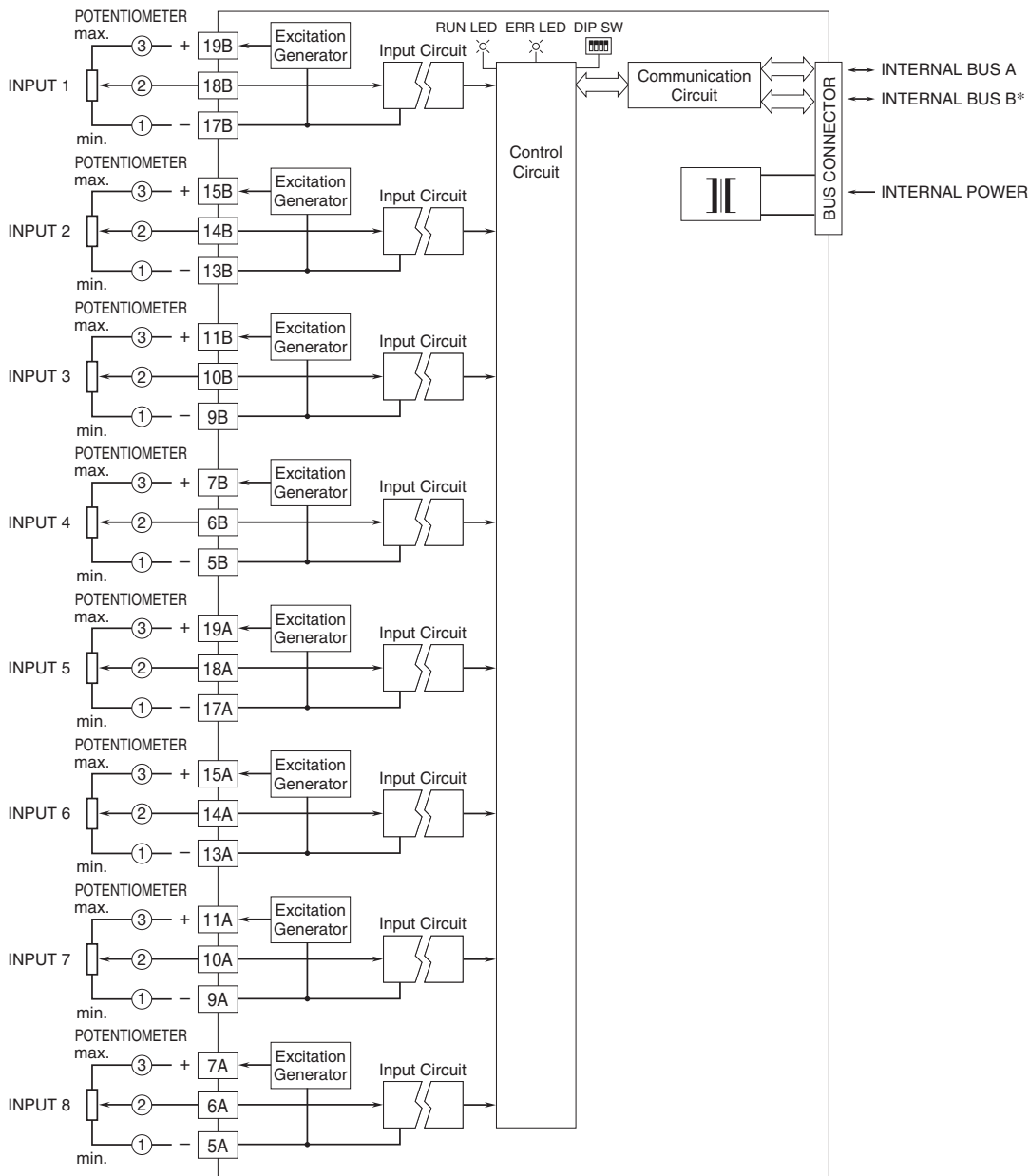
■ FRONT VIEW



EXTERNAL DIMENSIONS unit: mm [inch]



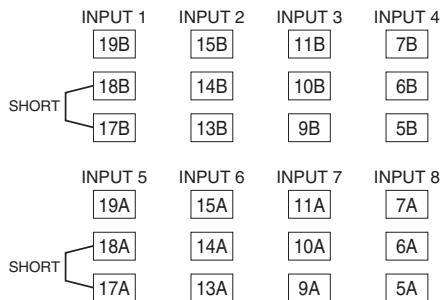
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



*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.