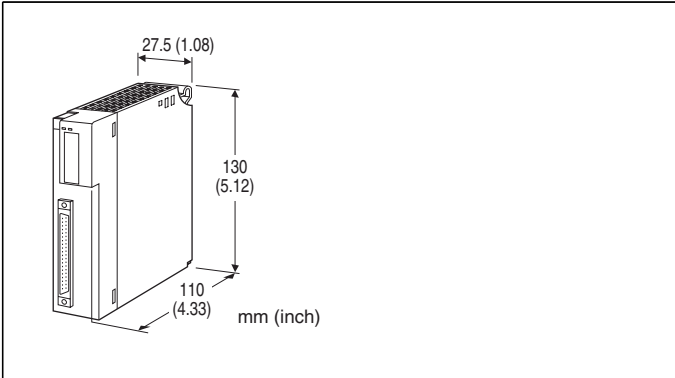


Remote I/O R3 Series

4 - 20 mA INPUT MODULE

(2-wire transmitter excitation supply; 4 points, isolated, connector type)



MODEL: R3Y-DS4[1][2]

ORDERING INFORMATION

- Code number: R3Y-DS4[1][2]
- Specify a code from below for each of [1] and [2].
(e.g. R3Y-DS4W/Q)
- Specify the specification for option code /Q
(e.g. /C01/SET)

NO. OF CHANNELS

4: 4

[1] COMMUNICATION MODE

S: Single

W: Dual

[2] 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

EX-FACTORY SETTING

/SET: Preset according to the Ordering Information Sheet
(No. ESU-8368)

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 (Fujitsu FCN-365P040-AU)

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

Isolation: Input 1 to input 2 to input 3 to input 4 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 circuit abnormality (AD converter response failure);

Green in normal operating conditions.

SUPPLY OUTPUT

(across the terminals 20A/20B - 18A/18B, 16A/16B - 14A/14B, 10A/10B - 8A/8B and 6A/6B - 4A/4B)

Output voltage: 24 - 28 V DC with no load

16 V DC min. at 22 mA

Current rating: ≤ 22 mA DC

• **Shortcircuit Protection**

Current limited: Approx. 30 mA

Protected time duration: No limit

INPUT SPECIFICATIONS

■ **DC Current:** 4 - 20 mA DC

Input resistance: 250 Ω resistor incorporated

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: 160 g (0.35 lb)

PERFORMANCE

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

Conversion rate: 80 / 40 / 20 / 10 msec. selectable
(factory default: 80 msec.)

Data range: 0 - 10000

Data allocation: 4

Current consumption: 210 mA

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

Response time: $\leq 0.2 \text{ sec.}$ (0 - 90 %)

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

Dielectric strength: 1500 V AC @ 1 minute (input 1 or input 2 or input 3 or input 4 to internal bus or internal power)

500 V AC @ 1 minute (input 1 to input 2 to input 3 to input 4)

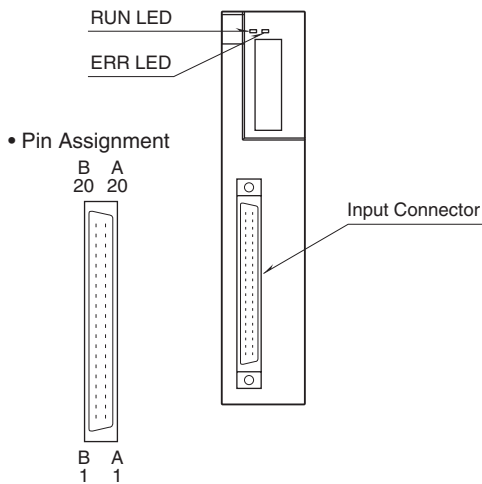
2000 V AC @ 1 minute (power input to FG; isolated on the power supply module)

Conversion accuracy:

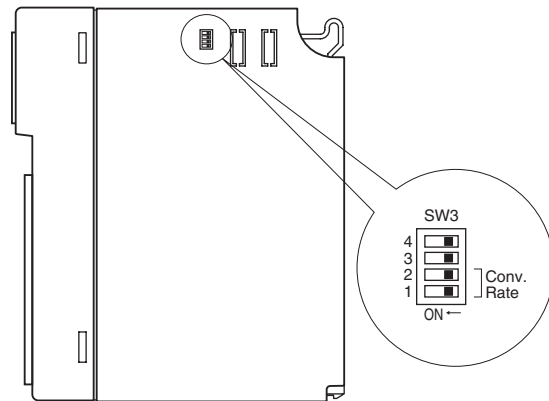
RATE	80 msec.	40 msec.	20 msec.	10 msec.
Accuracy	$\pm 0.05\%$	$\pm 0.1\%$	$\pm 0.2\%$	$\pm 0.4\%$

EXTERNAL VIEW

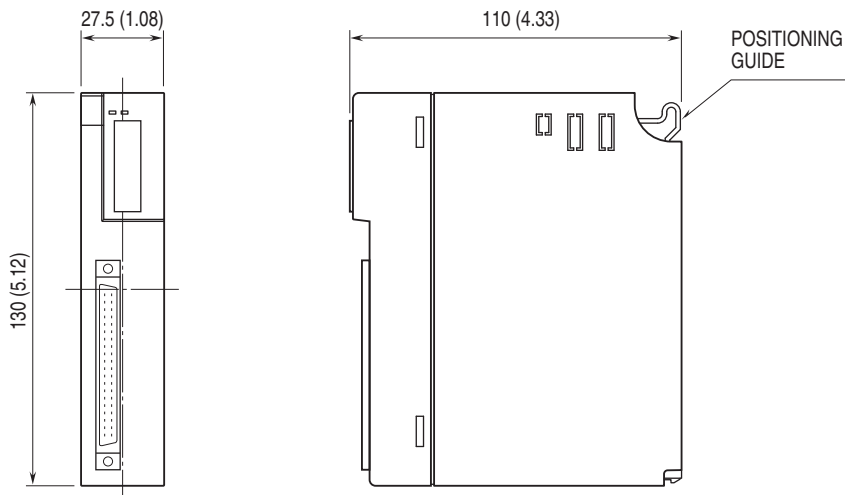
FRONT VIEW



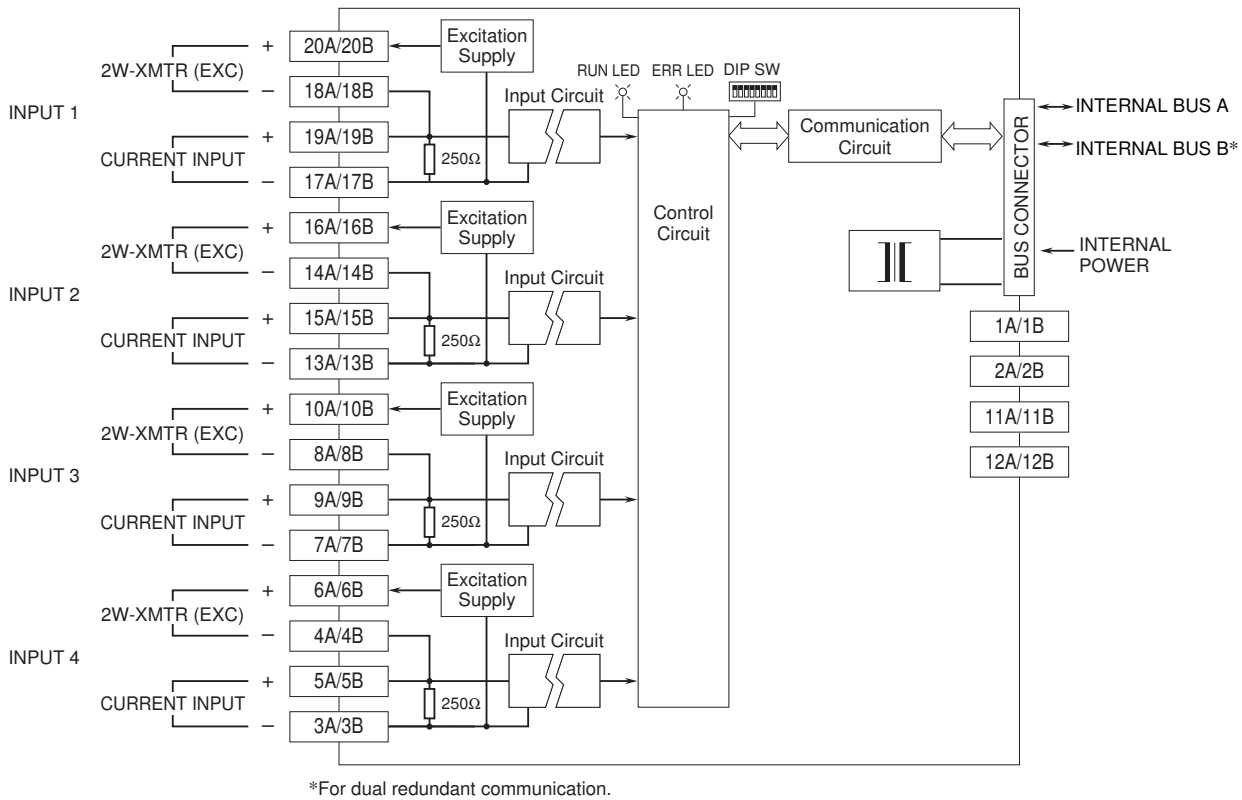
SIDE VIEW



EXTERNAL DIMENSIONS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Caution

Input value is less than -15% for the open input, then the host PC/PLC recognizes and configures this as error.
The unused channels can be specified and configured with the PC Configurator Software (model: R3CON).

INPUT CONNECTOR (40-pin)

PIN No.	ASSIGNMENT	PIN No.	ASSIGNMENT
1A	NC	1B	NC
2A	NC	2B	NC
3A	- IN4	3B	- IN4
4A	- 2-WIRE XMTR4	4B	- 2-WIRE XMTR4
5A	+ IN4	5B	+ IN4
6A	+ 2-WIRE XMTR4	6B	+ 2-WIRE XMTR4
7A	- IN3	7B	- IN3
8A	- 2-WIRE XMTR3	8B	- 2-WIRE XMTR3
9A	+ IN3	9B	+ IN3
10A	+ 2-WIRE XMTR3	10B	+ 2-WIRE XMTR3
11A	NC	11B	NC
12A	NC	12B	NC
13A	- IN2	13B	- IN2
14A	- 2-WIRE XMTR2	14B	- 2-WIRE XMTR2
15A	+ IN2	15B	+ IN2
16A	+ 2-WIRE XMTR2	16B	+ 2-WIRE XMTR2
17A	- IN1	17B	- IN1
18A	- 2-WIRE XMTR1	18B	- 2-WIRE XMTR1
19A	+ IN1	19B	+ IN1
20A	+ 2-WIRE XMTR1	20B	+ 2-WIRE XMTR1



Specifications are subject to change without notice.