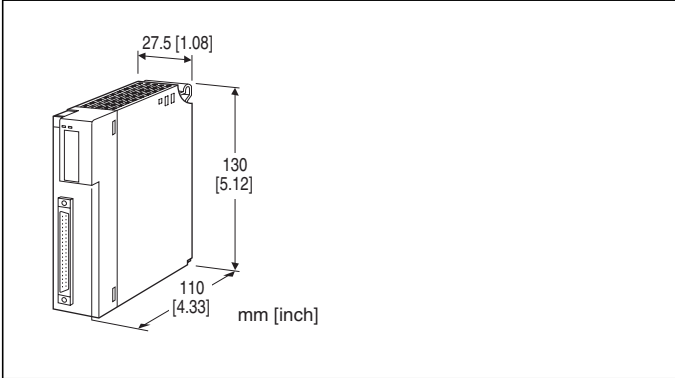


## Remote I/O R3 Series

### 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 (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 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:**  $\pm 0.015\% / ^\circ\text{C}$  ( $\pm 0.008\% / ^\circ\text{F}$ )

**Response time:**  $\leq 0.2$  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)

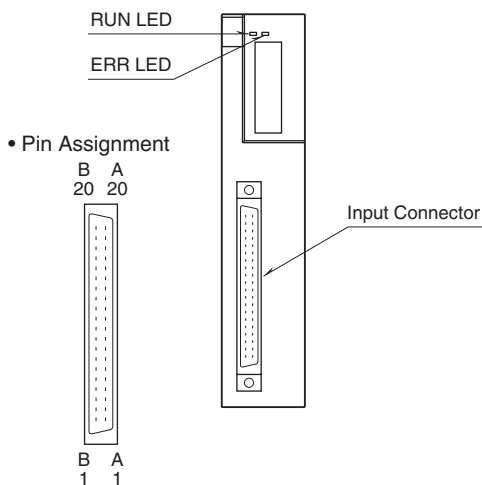
2000 V AC @ 1 minute (power input to FG; isolated on the power supply module)

**Conversion accuracy:**

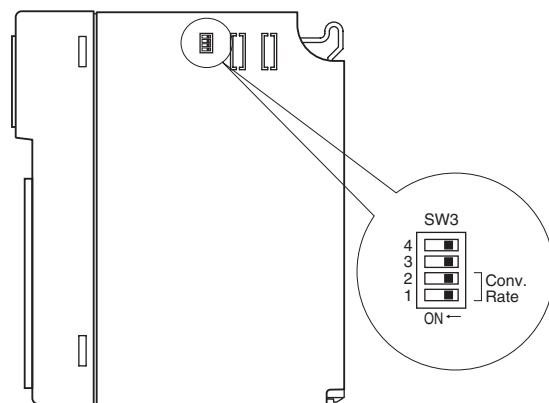
| RATE     | 80 msec.     | 40 msec.    | 20 msec.    | 10 msec.    |
|----------|--------------|-------------|-------------|-------------|
| Accuracy | $\pm 0.05\%$ | $\pm 0.1\%$ | $\pm 0.2\%$ | $\pm 0.4\%$ |

## EXTERNAL VIEW

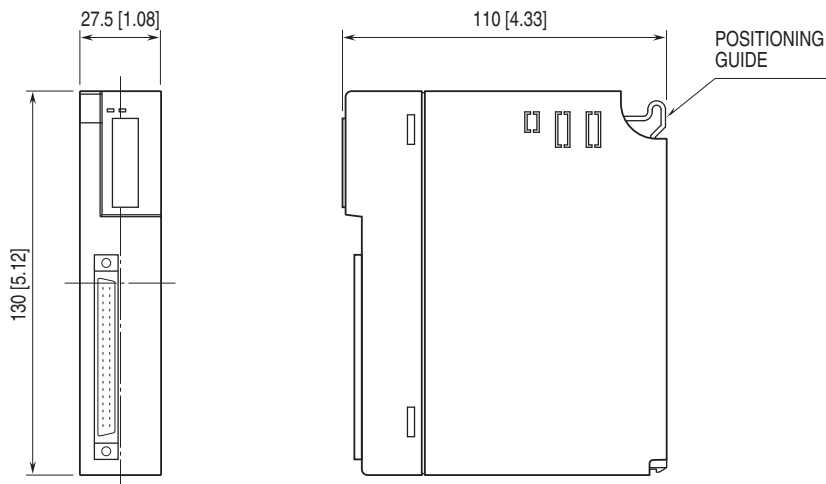
### FRONT VIEW



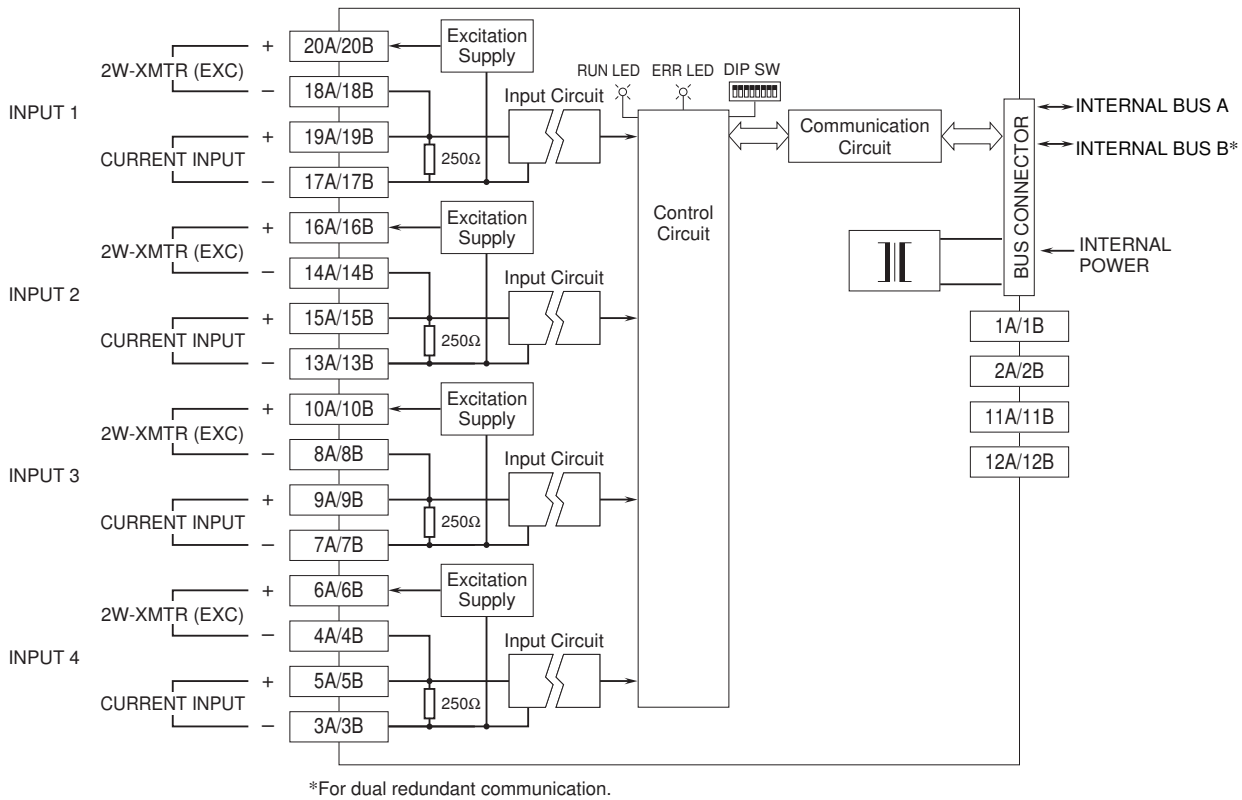
### SIDE VIEW



## 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.