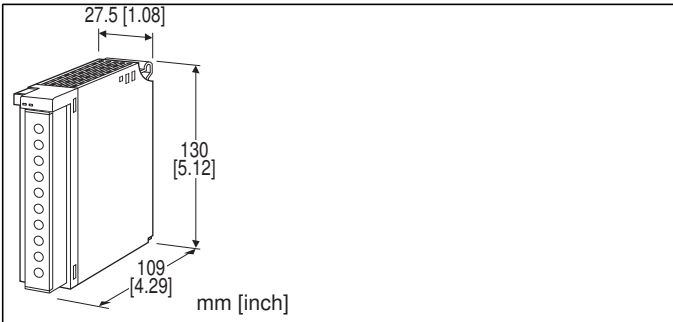


## Remote I/O R3 Series

### AC VOLTAGE INPUT MODULE

(4 points, isolated, true RMS sensing)



### MODEL: R3-PT4[1][2]

#### ORDERING INFORMATION

- Code number: R3-PT4[1][2]
- Specify a code from below for each of [1] and [2].  
(e.g. R3-PT4W/H/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 (multiple selections)

##### Frequency

blank: 45 - 65 Hz

/H: 200 Hz - 1.2 kHz

##### 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-8398)

#### GENERAL SPECIFICATIONS

##### Connection

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

**Input:** M3.5 screw terminals (torque 0.8 N·m)

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

**Screw terminal:** Nickel-plated steel

**Isolation:** Input 1 to input 2 to input 3 to input 4 to internal bus or internal power

##### Input waveform

**RMS sensing:** Up to 15 % of 3rd harmonic content

**Input range:** Selectable with the side DIP SW

**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.

**Low-end cutout:** Converted as 0 % for the input below 2 %

#### INPUT SPECIFICATIONS

**Input:** 0 - 250 V AC, 0 - 50 V AC,

**Frequency:** 45 - 65 Hz

(200 Hz - 1.2 kHz with Option /H)

**Input burden:** ≤1 VA

**Overload capacity:** 200 % of rating for 1 minute, 120 % continuous

**Operational range:** 0 - 115 % of rating

#### 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.

**Conversion rate:** 80 / 40 / 20 / 10 msec. selectable

**Data range:** 0 - 10000 of the input range

**Data allocation:** 4

**Current consumption:** 60 mA

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

**Input response time:**  $\leq 0.5$  sec. (0 - 90 %)

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

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

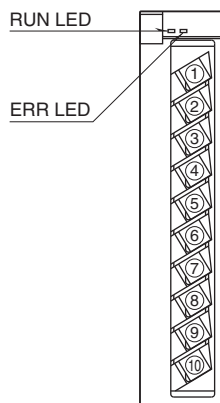
2000 V AC @ 1 minute (power input to FG; isolated on the power supply module)

### CONVERSION ACCURACY

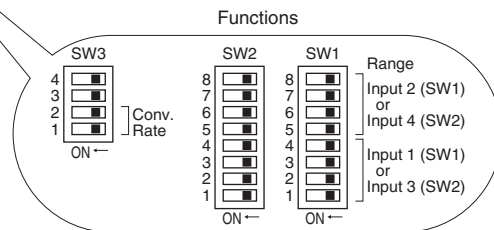
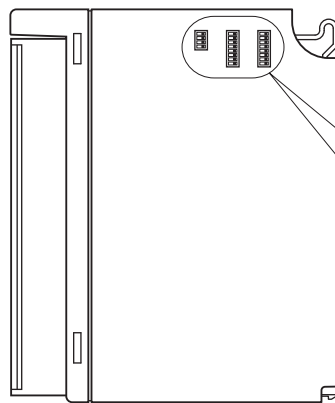
RATE	80ms	40ms	20ms	10ms
ACCURACY	$\pm 0.5\%$	$\pm 0.5\%$	$\pm 1.0\%$	$\pm 2.0\%$

## EXTERNAL VIEW

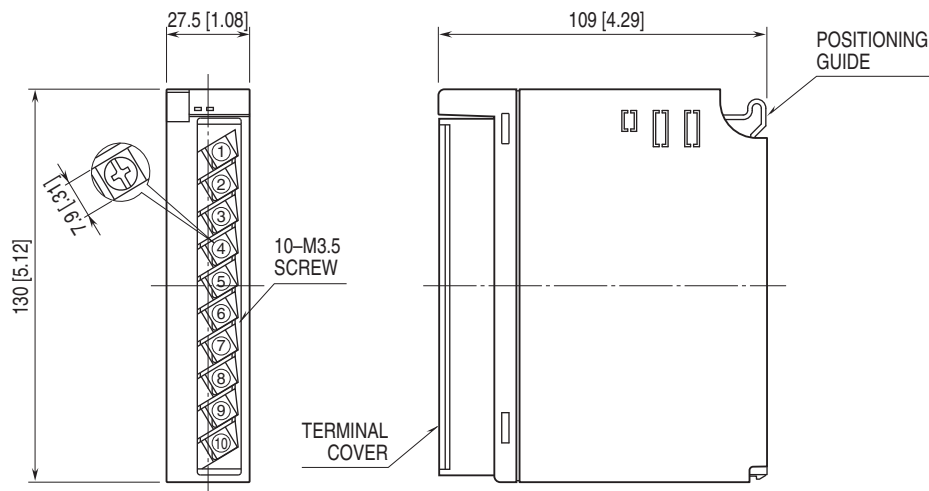
### FRONT VIEW



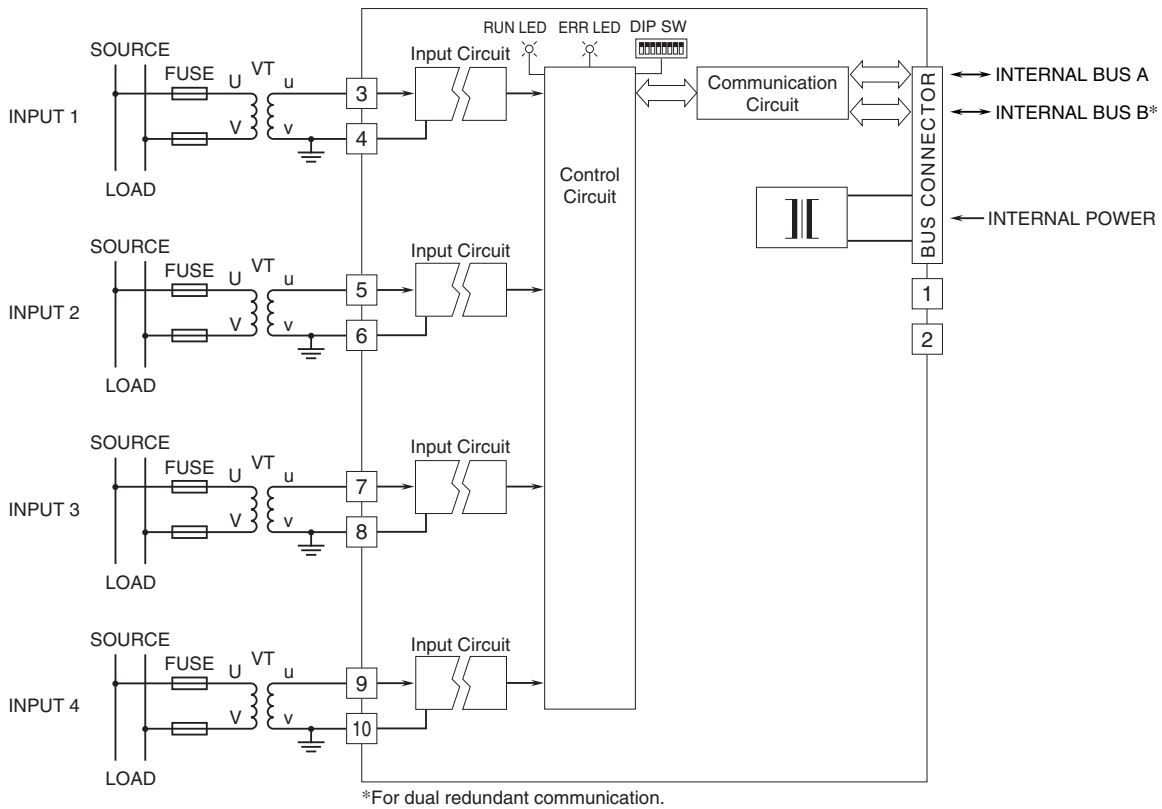
### SIDE VIEW



## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



**SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM**



Specifications are subject to change without notice.