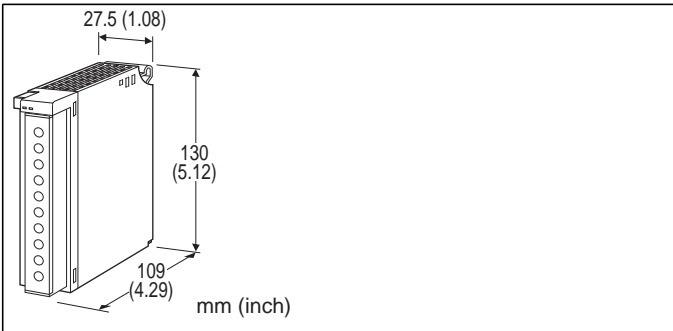


Remote I/O R3 Series

AC VOLTAGE INPUT MODULE

(true RMS sensing)



MODEL: R3-PT4[1][2]

ORDERING INFORMATION

- Code number: R3-PT4[1][2]
- Specify a code from below for each [1] and [2].
(e.g. R3-PT4W/H/Q)
- Specify the specification for option code /Q
(e.g. /C01)

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

COATING (For the detail, refer to M-System's web site.)

- /C01: Silicone coating
- /C02: Polyurethane coating
- /C03: Rubber coating

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 the input abnormality;
Green in normal operating conditions.

Power ON timer: Starts conversion in 10 seconds after the power is turned on.

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

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

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

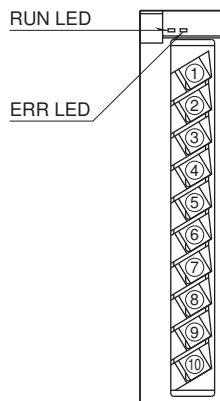
Dielectric strength: 1500 V AC @ 1 minute (input 1 to input 2 to input 3 to input 4 to internal bus or internal power)

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

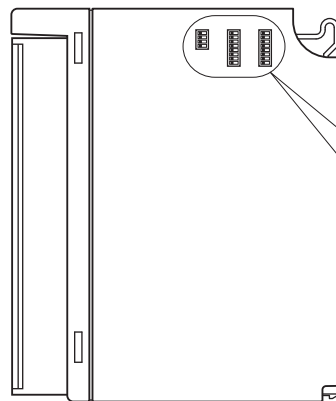
RANGE	CONVERSION ACCURACY			
	CONVERSION RATE			
	80ms	40ms	20ms	10ms
0 - 250V AC	$\pm 0.5\%$	$\pm 0.5\%$	$\pm 1.0\%$	$\pm 2.0\%$
0 - 50V AC	$\pm 0.5\%$	$\pm 0.5\%$	$\pm 1.0\%$	$\pm 2.0\%$

EXTERNAL VIEW

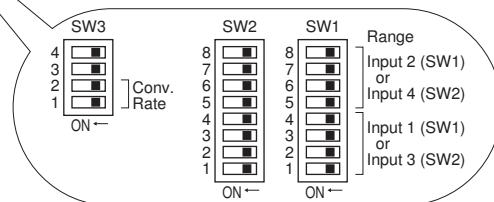
FRONT VIEW



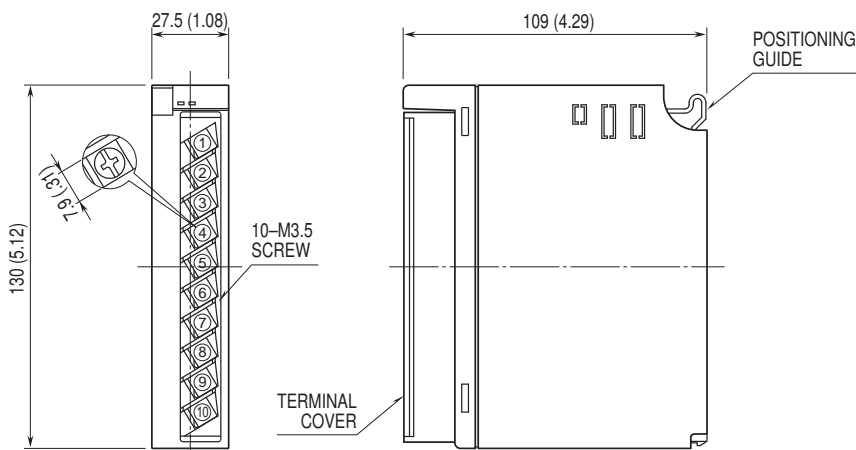
SIDE VIEW



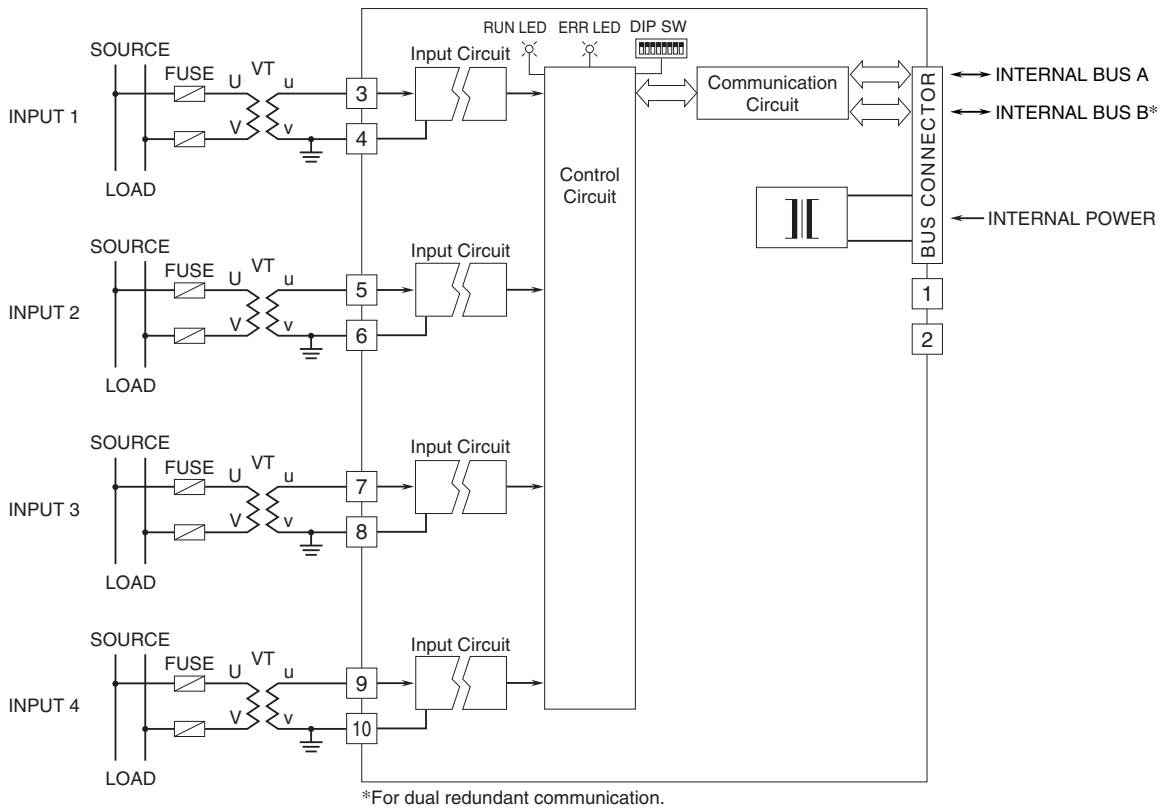
Functions



EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.

