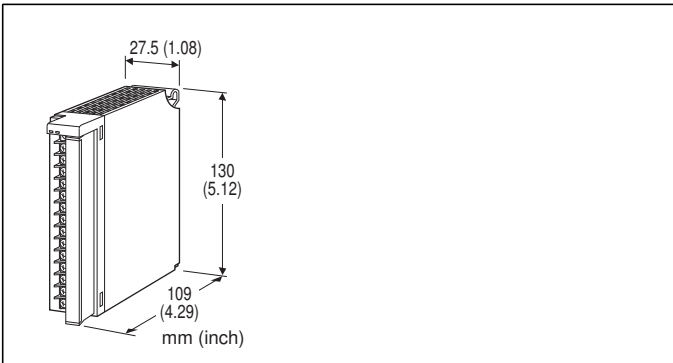


## Remote I/O R3 Series

### AC CURRENT INPUT MODULE

(8 points, isolated, clamp-on current sensor type CLSB use)



### MODEL: R3-CT8B[1][2]

#### ORDERING INFORMATION

- Code number: R3-CT8B[1][2]
- Specify a code from below for each of [1] and [2].  
(e.g. R3-CT8BW/H/Q)
- Specify the specification for option code /Q  
(e.g. /C01/SET)

#### NO. OF CHANNELS

**8B:** 8 channels, Sensor type CLSB

#### [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-8446)

#### RELATED PRODUCTS

- PC configurator software (model: R3CON)
- Zero/span adjustments for the conversion data are available using the R3CON. Downloadable at M-System's web site.
- Clamp-on current sensor (model: CLSB-05)
- Clamp-on current sensor (model: CLSB-10)
- Clamp-on current sensor (model: CLSB-20)
- Clamp-on current sensor (model: CLSB-40)
- Clamp-on current sensor (model: CLSB-60)

The clamp-on current sensor, not included in the product package, must be ordered separately.

Refer to the data sheet for the sensor for more information such as applicable wire diameter.

#### GENERAL SPECIFICATIONS

##### Connection

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

**Input:** M3 separable screw terminal (torque 0.5 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 input 5 to input 6 to input 7 to input 8 to internal bus or internal power

**Input range:** Selectable with the side DIP SW (per 4 channels)

**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 1 % of range

Note: Change the value of "Zero Base" and "Full Base" with PC configurator software (model: R3CON) to disable low-end cutout.

#### INPUT SPECIFICATIONS

##### Input (sensor & range)

CLSB-05: 0 - 50 A AC

CLSB-10: 0 - 100 A AC

CLSB-20: 0 - 200 A AC

CLSB-40: 0 - 400 A AC

CLSB-60: 0 - 600 A AC

(Operational range for the CLSB-60 is limited up to approx. 109 % (65535).

**Frequency:** 45 - 65 Hz

(200 Hz - 1.2 kHz with Option /H)

**Operational range:** 5 - 115 % of rating

Max. working voltage: 440 V AC (primary side)

## 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:** 250 g (0.55 lb)

## PERFORMANCE

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

**Conversion rate:** 160 / 80 / 40 / 20 msec. selectable

**Data range:** Engineering unit value × 100 (integer)

**Data allocation:** 8

**Current consumption:** 100 mA

**Temp. coefficient:** ±0.015 %/°C (±0.008 %/°F)

**Input response time:** ≤ 0.5 sec. (0 - 90 %)

**Insulation resistance:** ≥ 100 MΩ with 500 V DC

**Dielectric strength:** 1000 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)

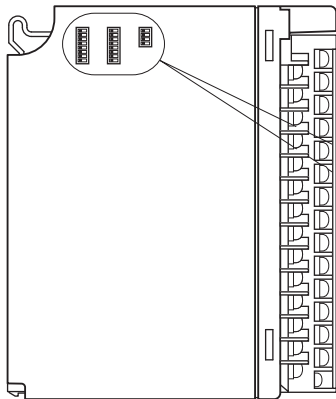
### Conversion accuracy

Rate	160 msec.	80 msec.	40 msec.	20 msec.
Accuracy	±0.5%	±0.5%	±1.0%	±2.0%

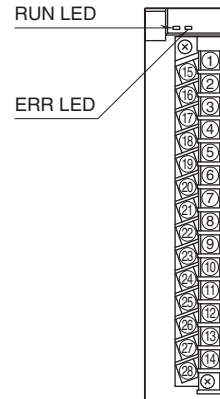
Except the accuracy of the sensor.

## EXTERNAL VIEW

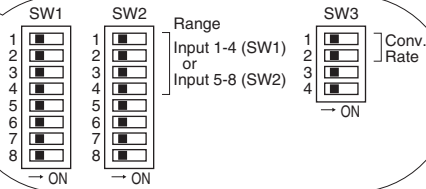
■ SIDE VIEW



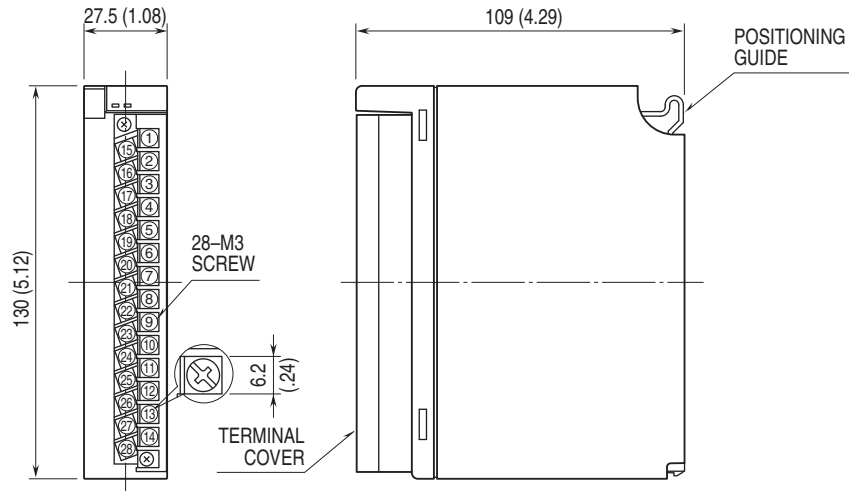
■ FRONT VIEW



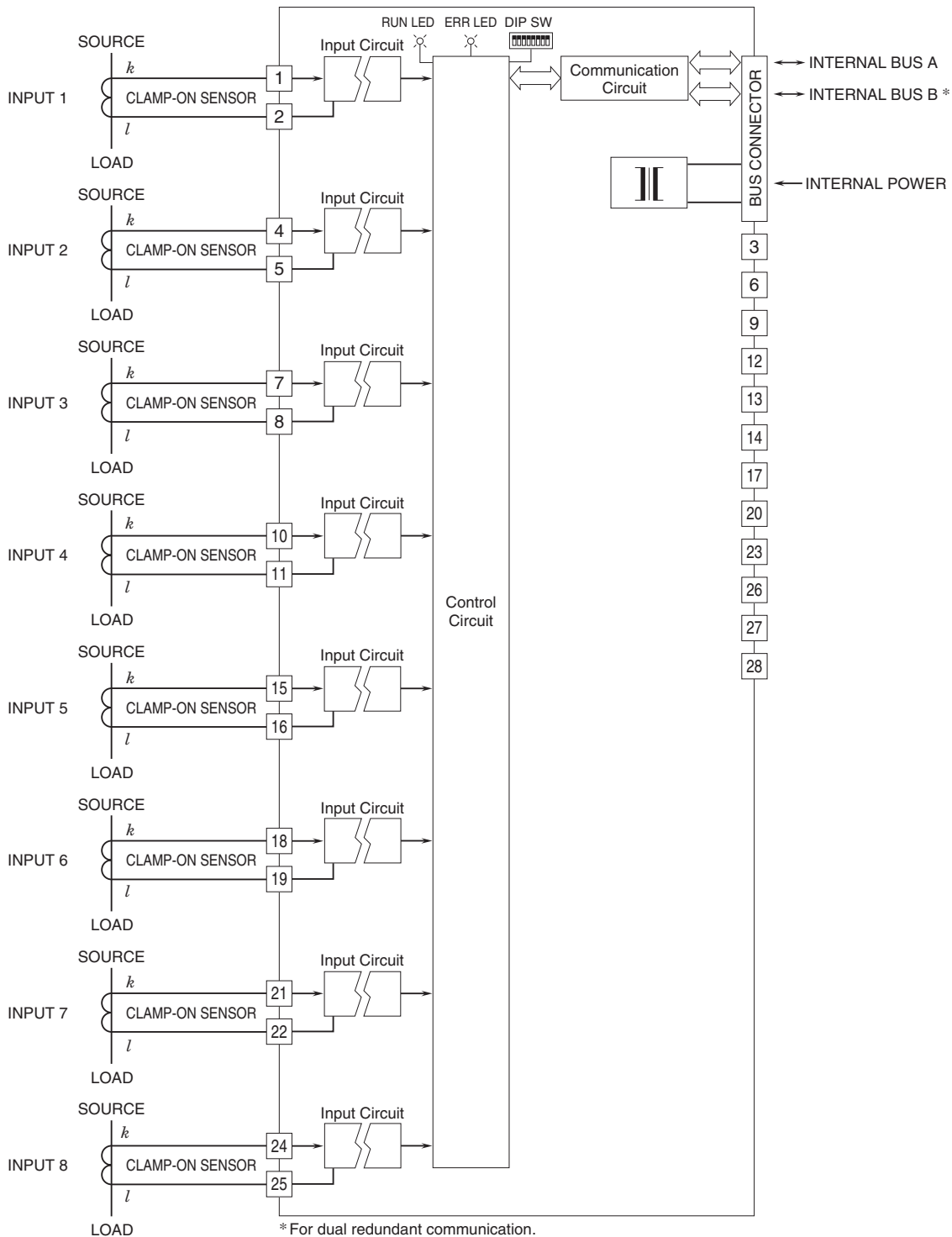
Functions



## EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



## SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.