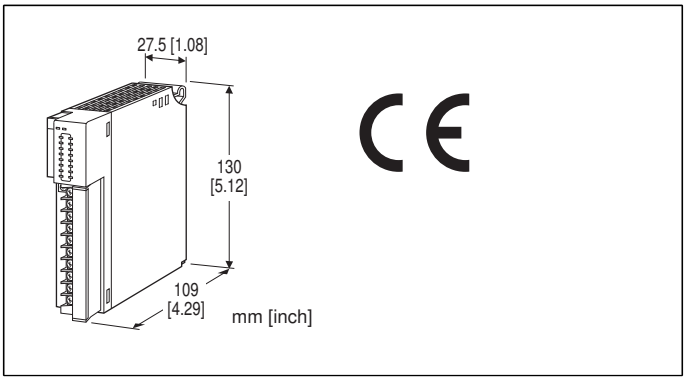
Remote I/O R3 Series

AC CONTACT INPUT MODULE

(Di 16 points)



MODEL: R3–DA16B[1][2]

ORDERING INFORMATION

• Code number: R3-DA16B[1][2]
Specify a code from below for each of [1] and [2].
(e.g. R3-DA16BW/CE/Q)
• Specify the specification for option code /Q
(e.g. /C01)

NO. OF CHANNELS

16: 16

INPUT

B: AC CONTACT INPUT

[1] COMMUNICATION MODE

S: Single
W: Dual

[2] OPTIONS (multiple selections)

Standards & Approvals
blank: Without CE
/CE: CE marking
Other Options
blank: none
/Q: Option other than the above (specify the specification)

SPECIFICATIONS OF OPTION: Q

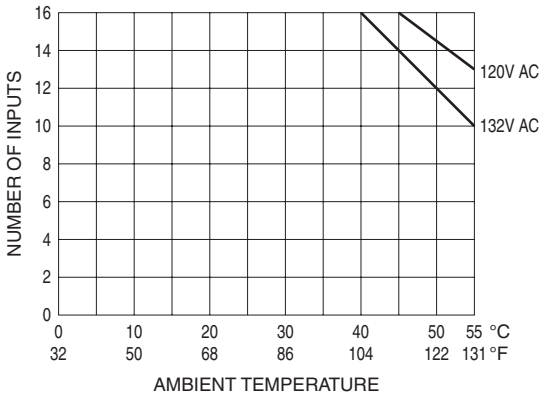
COATING (For the detail, refer to M-System's web site.)
/C01: Silicone coating
/C02: Polyurethane coating
/C03: Rubber coating

GENERAL SPECIFICATIONS

Connection
Internal bus: Via the Installation Base (model: R3-BSx)
Input: M3 separable screw terminal (torque 0.5 N·m)
Internal power: Via the Installation Base (model: R3-BSx)
Screw terminal: Nickel-plated steel
Isolation: Input to internal bus or internal power
Excitation monitor: Selectable with side DIP switch; ON/OFF setting available
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 excitation abnormality;
Green in normal operating conditions.
Input status indicator: Red LED; turns on with the input ON.

INPUT SPECIFICATIONS

Number of input: 16 points
Input voltage: 100 – 132 V AC
Input resistance: 12 kΩ (60 Hz), 15 kΩ (50 Hz)
Common: All points (2 terminals)
ON voltage/current: ≥ 80 V AC, ≥ 5 mA
OFF voltage/current: ≤ 30 V AC, ≤ 1.7 mA



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

Data allocation: 1
Current consumption: 80 mA
Response time: ≤ 0.1 sec.
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 2000 V AC @ 1 minute
(input to internal bus or internal power)
2000 V AC @ 1 minute (power input to FG; isolated on the power supply module)

STANDARDS & APPROVALS

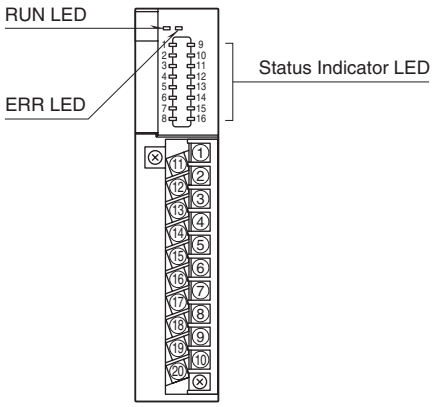
EU conformity:
EMC Directive
EMI EN 61000-6-4
EMS EN 61000-6-2
Low Voltage Directive
EN 61010-1, EN 61010-2-201
Measurement Category II (contact input)
Pollution Degree 2
Input to internal bus or internal power: Reinforced insulation (150 V)
RoHS Directive

FUNCTIONS

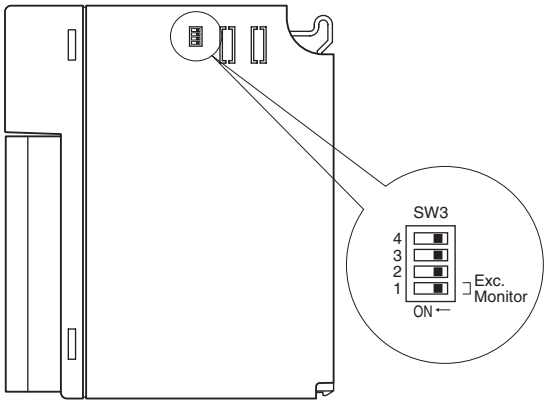
•Excitation Monitor ON
The input is held at the last status when the loss of excitation is detected. The excitation must be connected across the terminal 9 (19) and 10 (20).
•Excitation Monitor OFF
All input signals are turned off when the loss of excitation is detected.

EXTERNAL VIEW

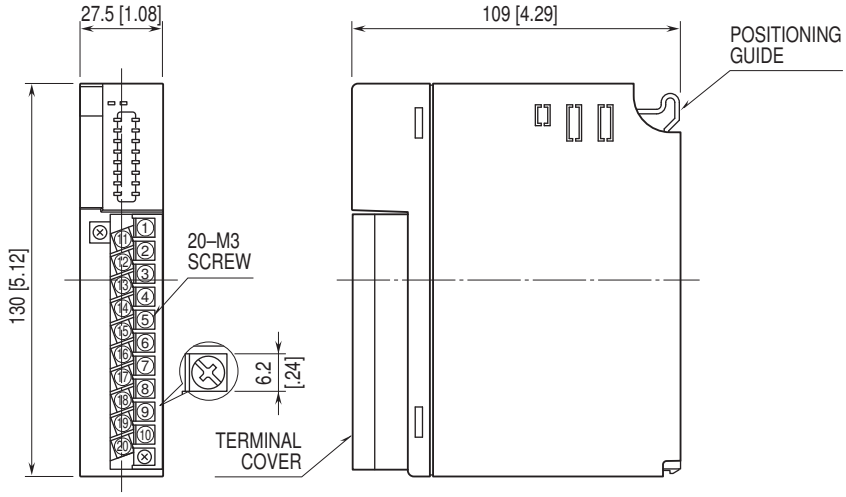
■FRONT VIEW



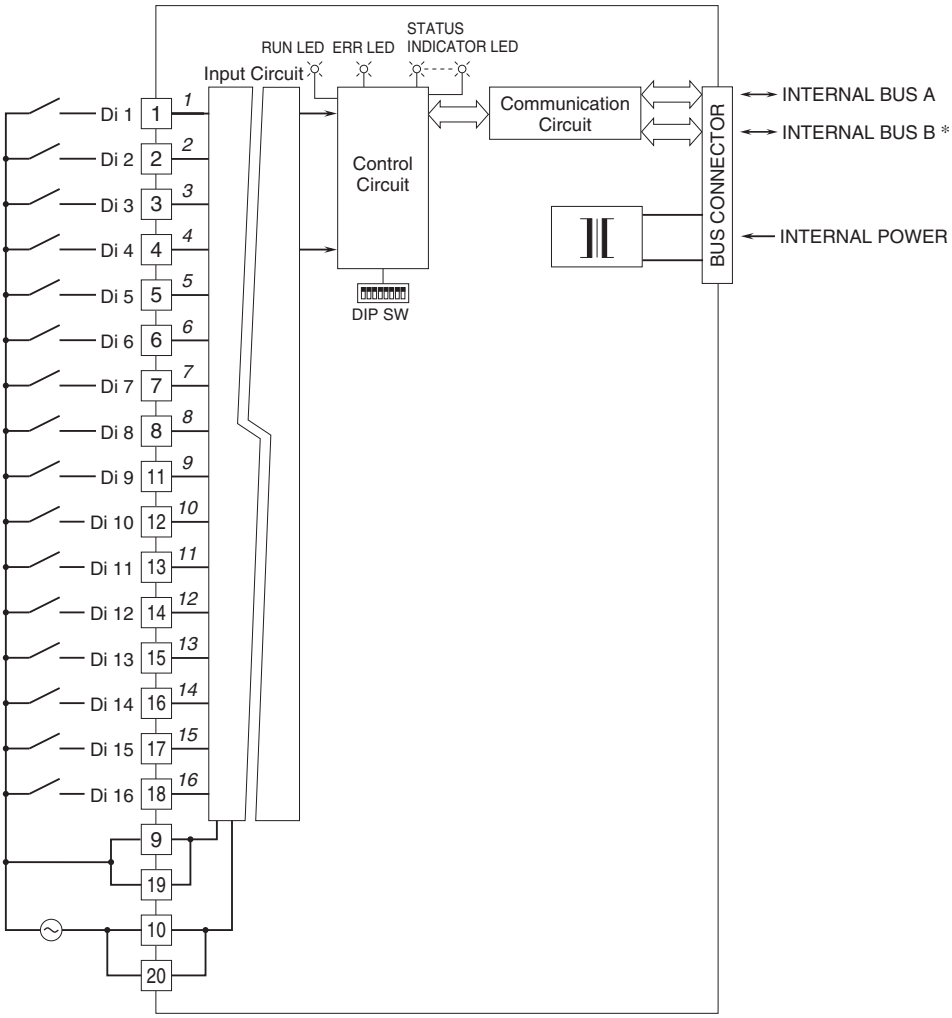
■SIDE VIEW



EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]

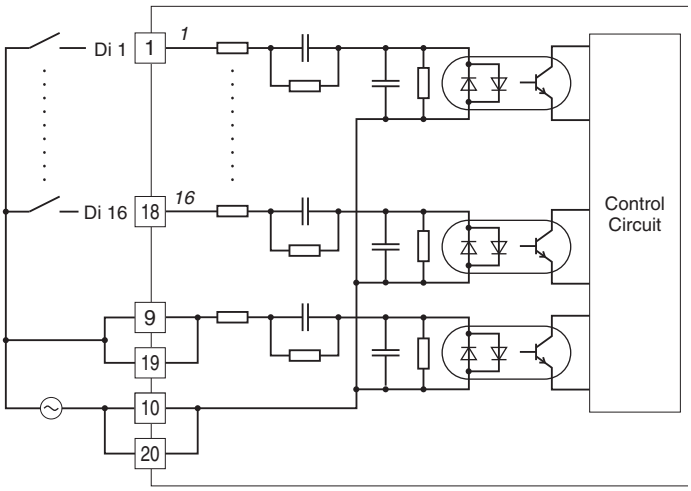


SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Numbers in italic indicate LED No.s assigned to the front panel LEDs.
* For dual redundant communication.

■ **Input Circuit**



⚠ Specifications are subject to change without notice.