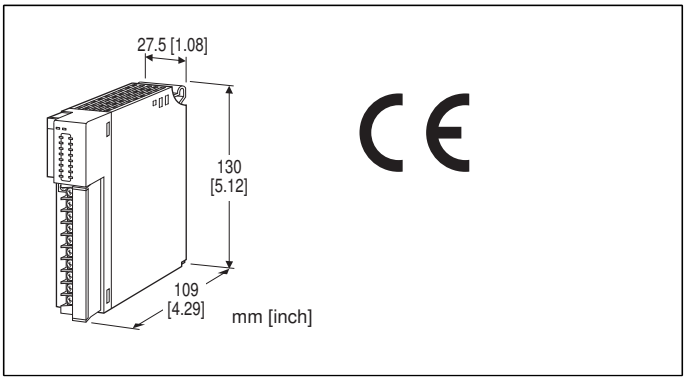
Remote I/O R3 Series

DISCRETE INPUT MODULE

(Di 16 points; with excitation supply)



MODEL: R3–DA16[1][2]

ORDERING INFORMATION

• Code number: R3-DA16[1][2]
Specify a code from below for each of [1] and [2].
(e.g. R3-DA16W/CE/Q)
• Specify the specification for option code /Q
(e.g. /C01)

NO. OF CHANNELS

16: 16

[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 our 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.
Read rate: 1 / 5 / 10 / 20 / 50 / 70 / 100 / 200 msec. selectable with DIP SW

INPUT SPECIFICATIONS

Number of input: 16 points
Isolation: Optical isolator + transformer (internal power supply)
Input resistance: Approx. 5.9 kΩ
Common: Negative commons, all points
Contact detecting: 13 V DC
(max. 24 V DC with no load)
ON current/resistance: ≥ 1.5 mA, ≤ 1.5 kΩ
OFF current/resistance: ≤ 0.75 mA, ≥ 18 kΩ
Detection levels
ON: ≥ 10 V
OFF: ≤ 4 V

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: 100 mA
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)

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STANDARDS & APPROVALS

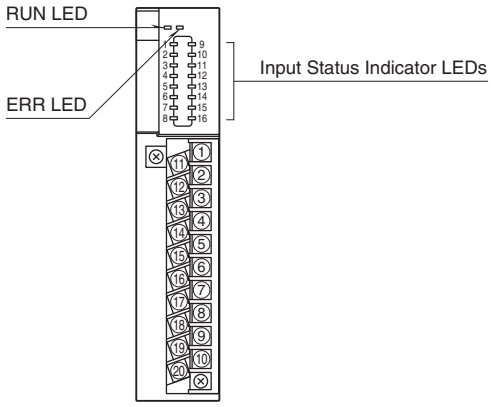
EU conformity:
EMC Directive
EMI EN 61000-6-4
EMS EN 61000-6-2
RoHS Directive

FUNCTIONS

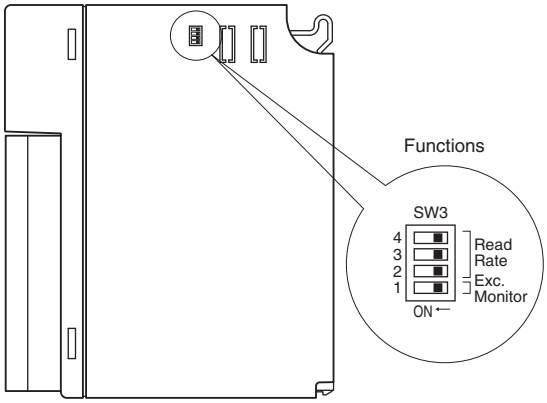
■ **EXCITATION MONITOR**
Enabled/disabled with DIP switch setting.
• **Excitation Monitor ON**
The input is held at the last status when the loss of excitation is detected.
• **Excitation Monitor OFF**
All input signals are turned off when the loss of excitation is detected.

EXTERNAL VIEW

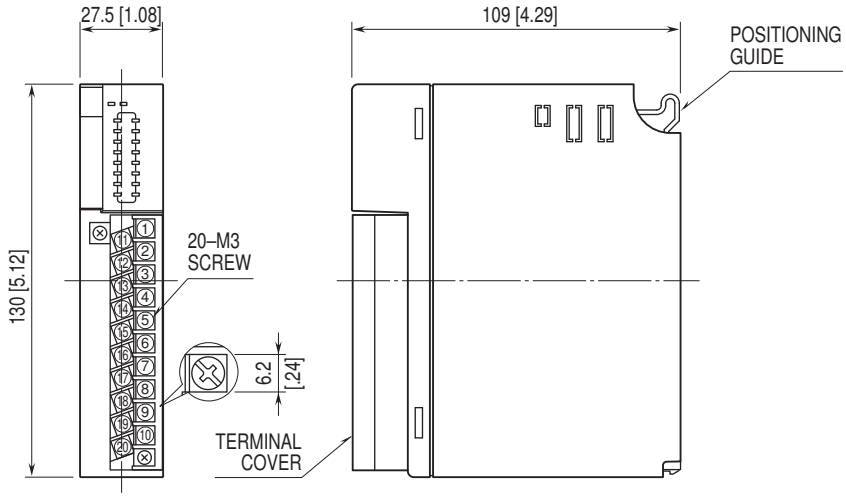
■ FRONT VIEW



■ SIDE VIEW



EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]



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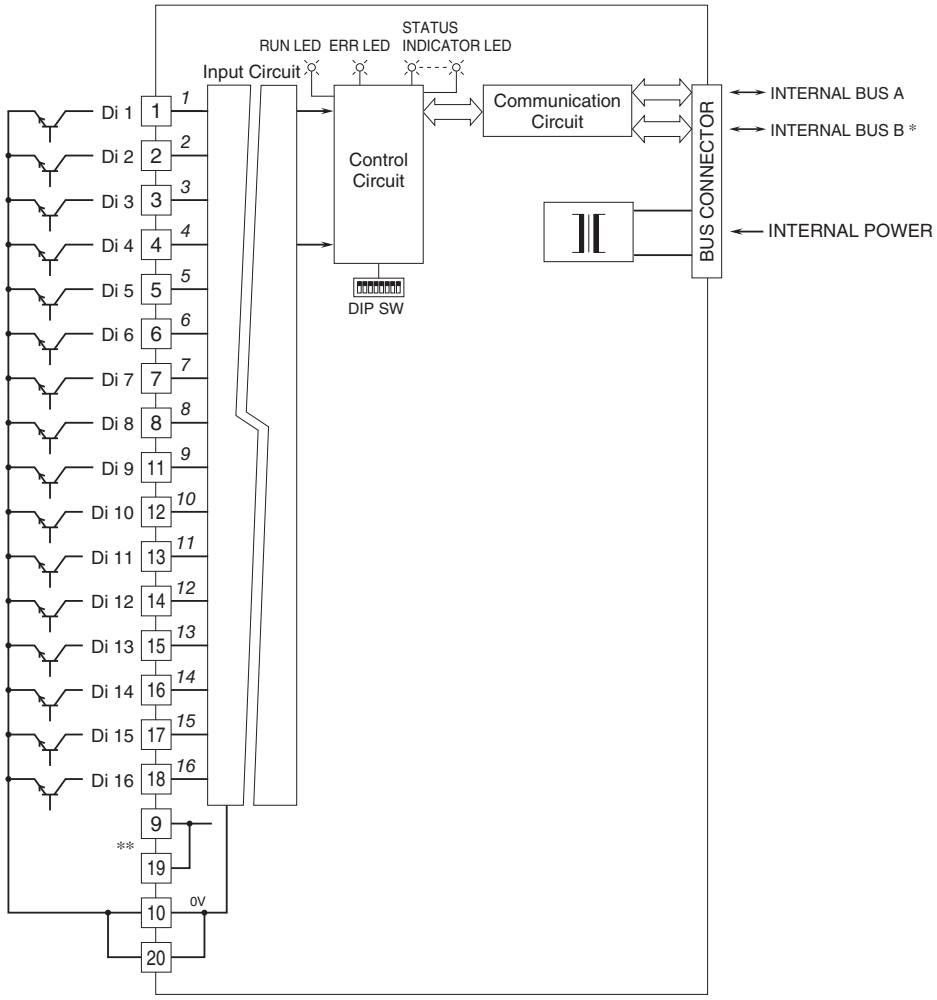
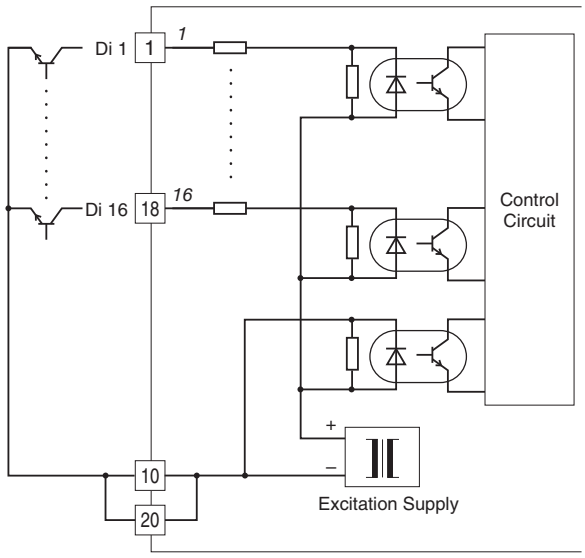
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Numbers in italic indicate LED No.s assigned to the front panel LEDs.
* For dual redundant communication.
** DO NOT connect to the terminals 9 or 19.

■ **Input Circuit**



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⚠ Specifications are subject to change without notice.

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