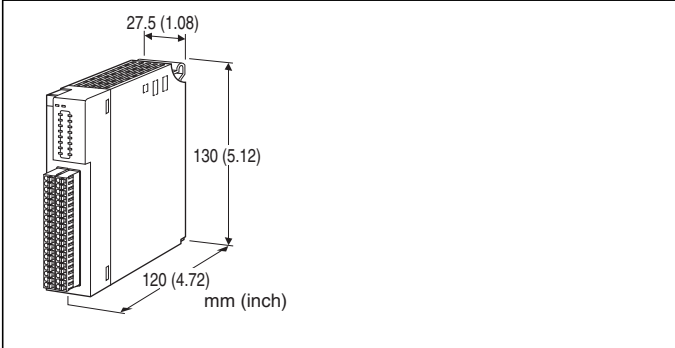


Remote I/O R3 Series

DISCRETE INPUT MODULE

(Di 16 points; with excitation supply, tension clamp terminal block)



MODEL: R3S-DA16[1][2]

ORDERING INFORMATION

- Code number: R3S-DA16[1][2]
- Specify a code from below for each of [1] and [2].
(e.g. R3S-DA16W/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

blank: none
/Q: Options 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: Separable tension clamp terminal (applicable wire size: 0.2 to 1.5 mm², stripped length 10 mm)
Internal power: Via the Installation Base (model: R3-BSx)

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 common per 16 points (20 terminals)

Sensing: 13 V DC

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)

FUNCTIONS

■ EXCITATION MONITOR

Enabled/disabled with DIP switch setting.

• Excitation Monitor ON

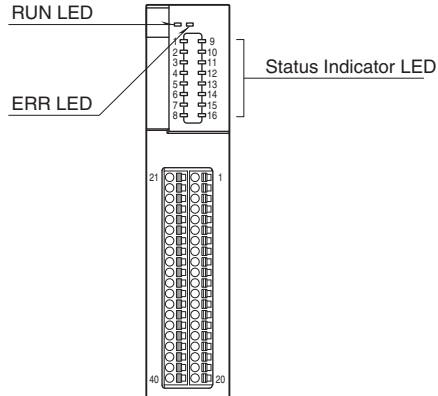
The input is held at the last status when the loss of excitation is detected.

• Excitation Monitor OFF

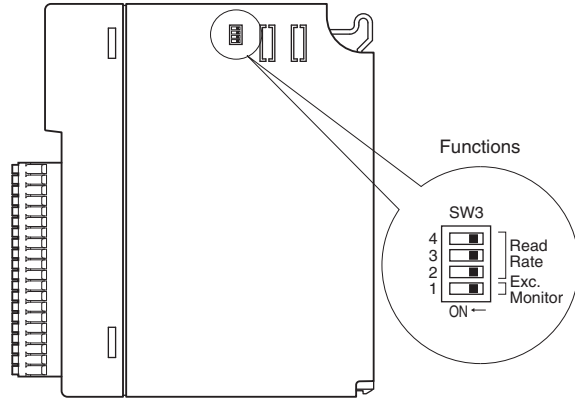
All input signals are turned off when the loss of excitation is detected.

EXTERNAL VIEW

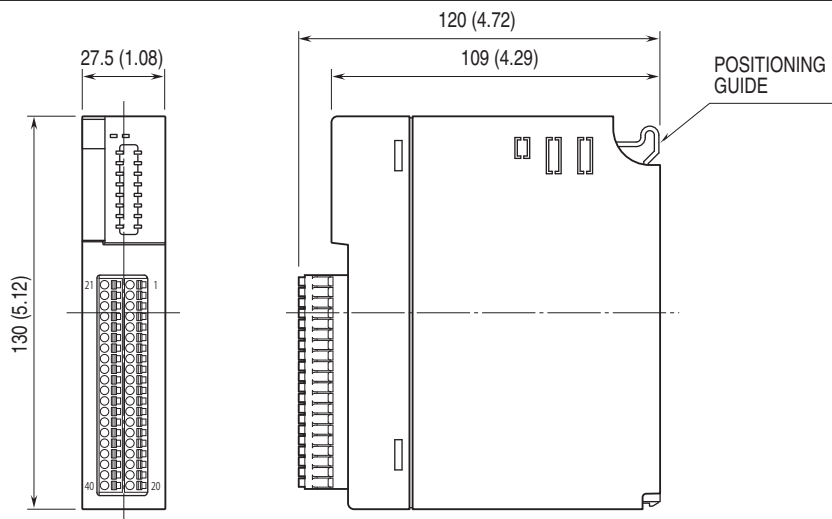
■ FRONT VIEW



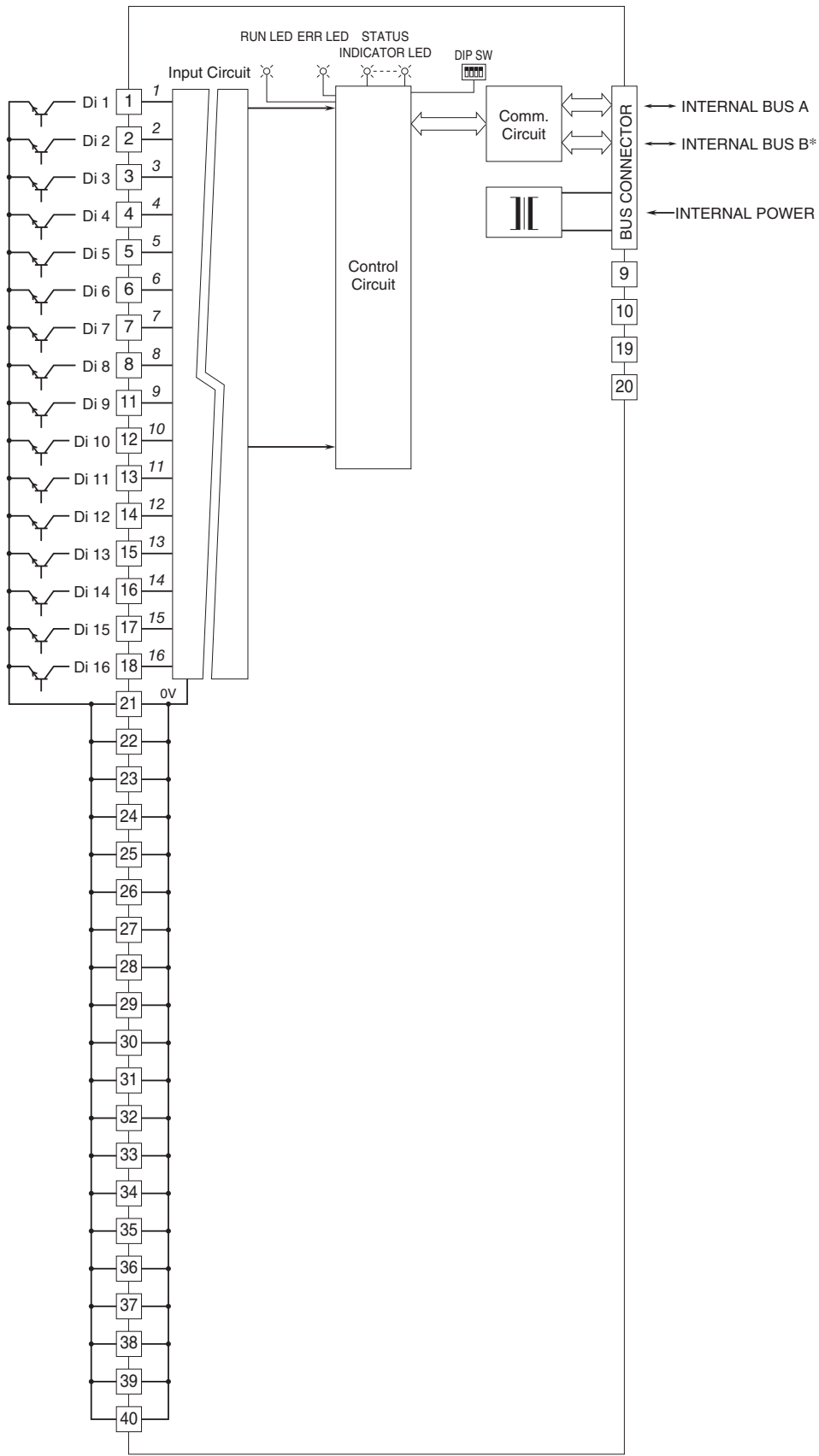
■ SIDE VIEW



EXTERNAL DIMENSIONS unit: mm (inch)



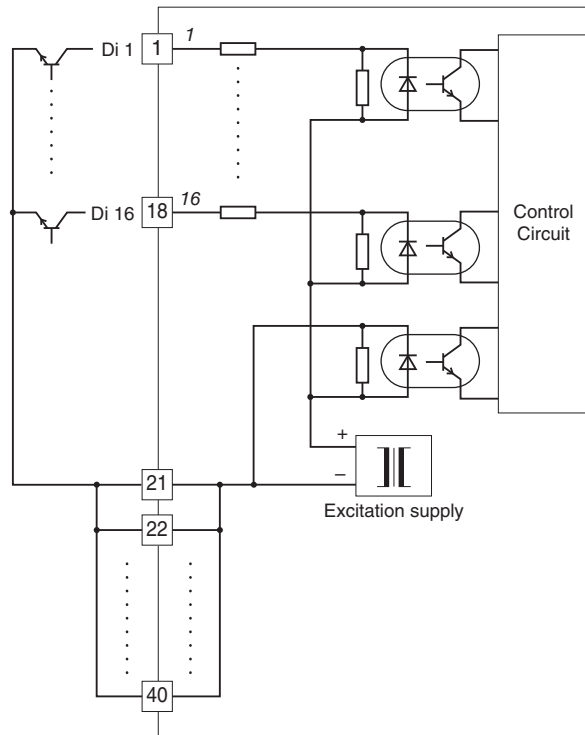
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Numbers in italic indicate LED No.s assigned to the front panel LEDs.

* For dual redundant communication.

■ Input Circuit



INPUT TERMINAL ASSIGNMENT

PIN No.	FUNCTION	PIN No.	FUNCTION
21	0V	1	Di1
22	0V	2	Di2
23	0V	3	Di3
24	0V	4	Di4
25	0V	5	Di5
26	0V	6	Di6
27	0V	7	Di7
28	0V	8	Di8
29	0V	9	NC
30	0V	10	NC
31	0V	11	Di9
32	0V	12	Di10
33	0V	13	Di11
34	0V	14	Di12
35	0V	15	Di13
36	0V	16	Di14
37	0V	17	Di15
38	0V	18	Di16
39	0V	19	NC
40	0V	20	NC



Specifications are subject to change without notice.