

DISCRETE INPUT MODULE

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

MODEL R3S-DA16**BEFORE USE**

Thank you for choosing M-System. Before use, please check contents of the package you received as outlined below.

If you have any problems or questions with the product, please contact M-System's Sales Office or representatives.

■ PACKAGE INCLUDES:

Discrete input module.....(1)

■ MODEL NO.

Confirm Model No. marking on the product to be exactly what you ordered.

■ INSTRUCTION MANUAL

This manual describes necessary points of caution when you use this product, including installation, connection and basic maintenance procedures.

POINTS OF CAUTION**■ HOT SWAPPABLE MODULES**

- Replacing the module does not affect other modules on the same base. Thus, the module can be replaced while the power is ON. However, replacing multiple modules at once may greatly change live voltage levels. We highly recommend to replace them one by one.

■ GENERAL PRECAUTIONS

- DO NOT set the switches on the module while the power is supplied. The switches are used only for maintenance without the power.

■ ENVIRONMENT

- Indoor use.
- When heavy dust or metal particles are present in the air, install the unit inside proper housing with sufficient ventilation.
- Do not install the unit where it is subjected to continuous vibration. Do not subject the unit to physical impact.
- Environmental temperature must be within -10 to +55°C (14 to 131°F) with relative humidity within 30 to 90% RH in order to ensure adequate life span and operation.

■ WIRING

- Do not install cables close to noise sources (relay drive cable, high frequency line, etc.).
- Do not bind these cables together with those in which noises are present. Do not install them in the same duct.

■ AND

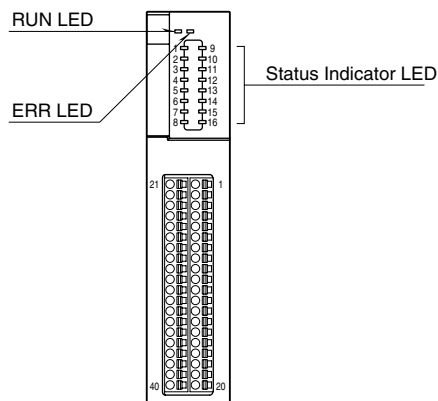
- The unit is designed to function as soon as power is supplied, however, a warm up for 10 minutes is required for satisfying complete performance described in the data sheet.

INSTALLATION

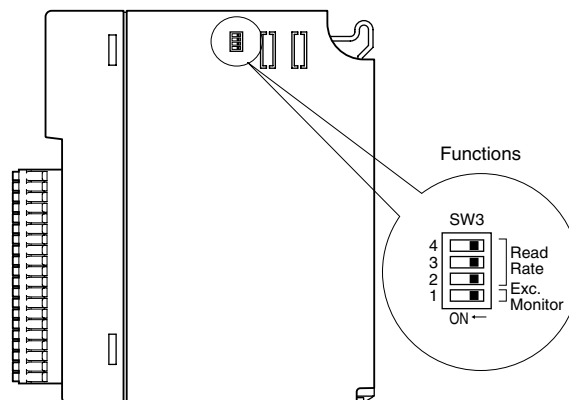
Use the Installation Base (model: R3-BSx).

COMPONENT IDENTIFICATION

FRONT VIEW



SIDE VIEW



STATUS INDICATOR LED

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.

SIDE DIP SW

(*) Factory setting

Excitation Monitor: SW3-1

SW	EXCITATION MONITOR	
	WITH (*)	WITHOUT
SW3-1	OFF	ON

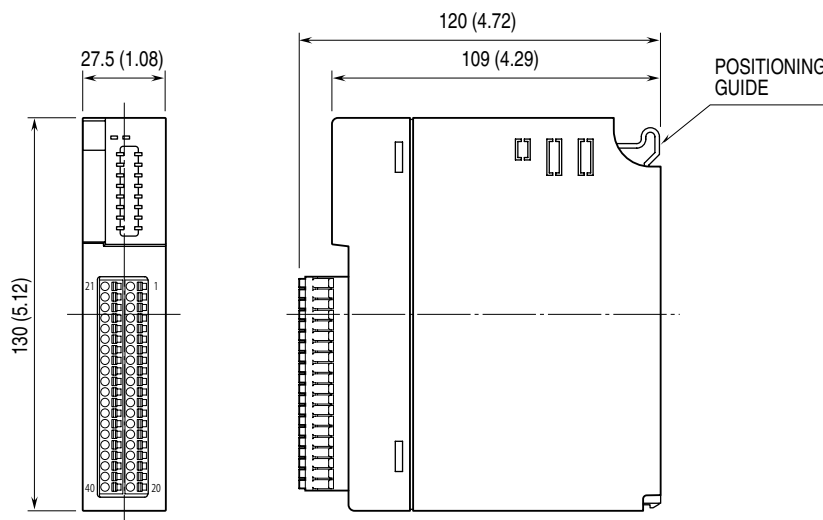
Read Rate: SW3-2, 3-3, 3-4

SW	READ RATE (\leq msec.)							
	10 (*)	1	5	20	50	70	100	200
SW3-2	OFF	ON	OFF	ON	OFF	ON	OFF	ON
SW3-3	OFF	OFF	ON	ON	OFF	OFF	ON	ON
SW3-4	OFF	OFF	OFF	OFF	ON	ON	ON	ON

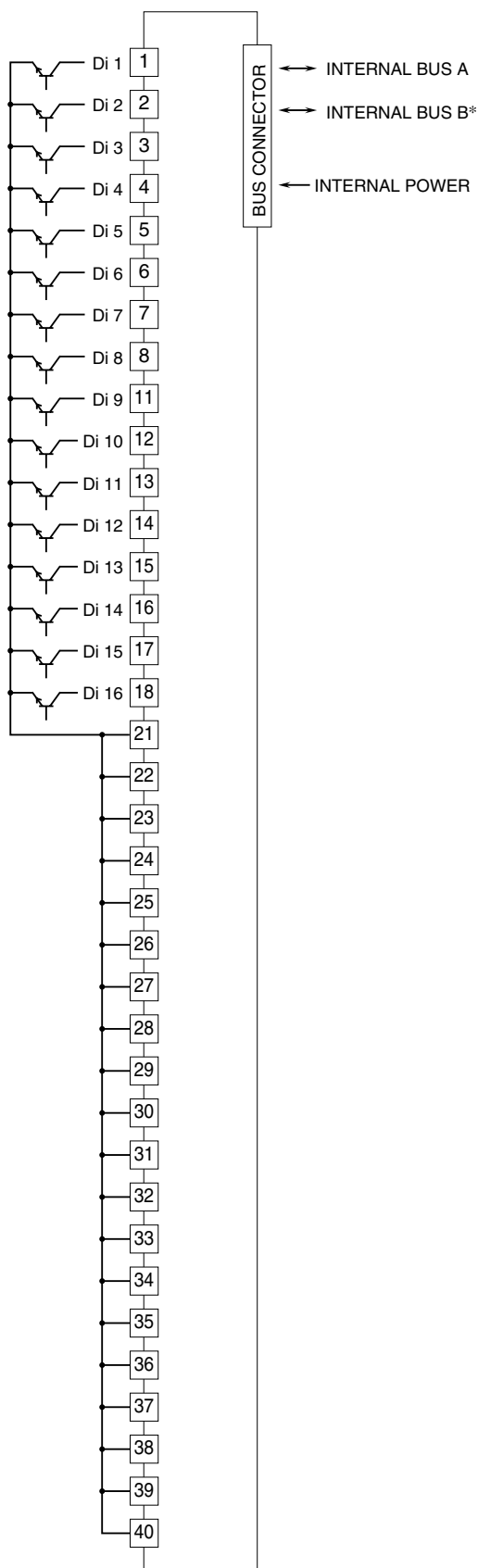
TERMINAL CONNECTIONS

Connect the unit as in the diagram below.

EXTERNAL DIMENSIONS unit: mm (inch)



CONNECTION DIAGRAM



* For dual redundant communication..

WIRING INSTRUCTIONS

APPLICABLE WIRE SIZE

- **Solid:** 0.2 to 1.0 mm² (0.55 to 1.12 dia.)
- **Stranded:** 0.2 to 1.5 mm²

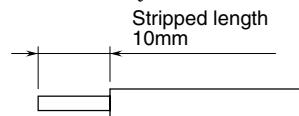
(Tinning wire ends may cause contact failure and therefore is not recommended.)

- **Ferruled:**

Unsheathed: 0.25 to 1.5 mm²

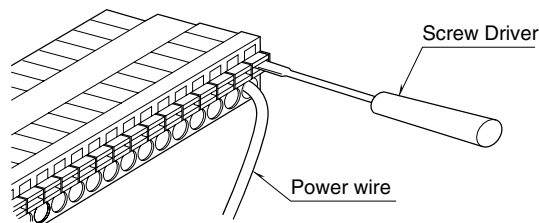
Sheathed: 0.25 to 0.75 mm²

- Expose wire conductors by 10 mm (0.39").



CONNECTION PROCEDURE

Insert the wire end until it comes to a full stop while pushing slot with the tip of a screw driver as shown below. Be sure wire insulation is not inside the terminal.



INPUT PIN ASSIGNMENT

PIN No.	FUNCTION	PIN No.	FUNCTION
21	0V	1	Di 1
22	0V	2	Di 2
23	0V	3	Di 3
24	0V	4	Di 4
25	0V	5	Di 5
26	0V	6	Di 6
27	0V	7	Di 7
28	0V	8	Di 8
29	0V	9	NC
30	0V	10	NC
31	0V	11	Di 9
32	0V	12	Di 10
33	0V	13	Di 11
34	0V	14	Di 12
35	0V	15	Di 13
36	0V	16	Di 14
37	0V	17	Di 15
38	0V	18	Di 16
39	0V	19	NC
40	0V	20	NC

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.