

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:

BCD code output 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**■ CONFORMITY WITH EU DIRECTIVES**

- The equipment must be mounted inside the instrument panel of a metal enclosure.
- The actual installation environments such as panel configurations, connected devices, connected wires, may affect the protection level of this unit when it is integrated in a panel system. The user may have to review the CE requirements in regard to the whole system and employ additional protective measures to ensure the CE conformity.

■ 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

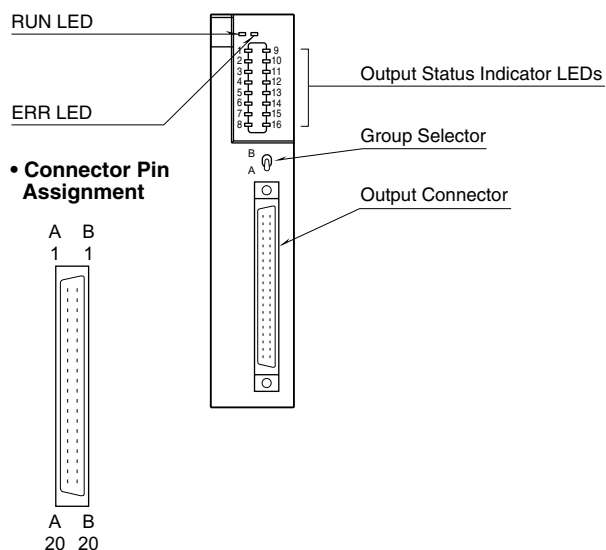
- Do not install cables close to noise sources (relay drive cable, high frequency line, etc.).
- Do not bind these cables together with those in which noises are present. Do not install them in the same duct.

INSTALLATION

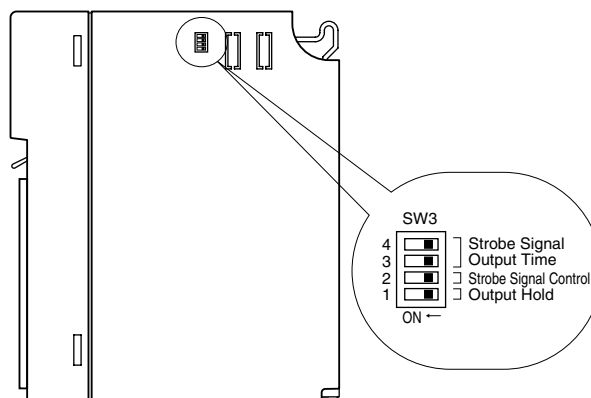
Use the Installation Base (model: R3-BSx).

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: Green LED turns on in normal operating conditions.

Output status indicator: Red LED; turns on with the output ON.

GROUP SELECTOR

Switches the output status indicator.

A. 1 - 8: Do 11 - Do 28

9 - 16: Do 31 - Do 48

B. 1 - 8: Do 51 - Do 68

9 - 16: Do 71 - Do 88

SIDE DIP SW

(*) Factory setting

Output Hold: SW3-1

SW	OUTPUT HOLD	
	HOLD (*)	OFF
SW3-1	OFF	ON

Strobe Signal Control: SW3-2

SW	STROBE SIGNAL CONTROL	
	WITHOUT (*)	WITH
SW3-2	OFF	ON

Strobe Signal Output Time: SW3-3, 3-4

SW	STROBE SIGNAL OUTPUT TIME (msec.)			
	5 (*)	10	50	100
SW3-3	OFF	ON	OFF	ON
SW3-4	OFF	OFF	ON	ON

PC CONFIGURATOR

With configurator software, settings shown below are available.
 Refer to the software manual of R3CON for detailed operation.

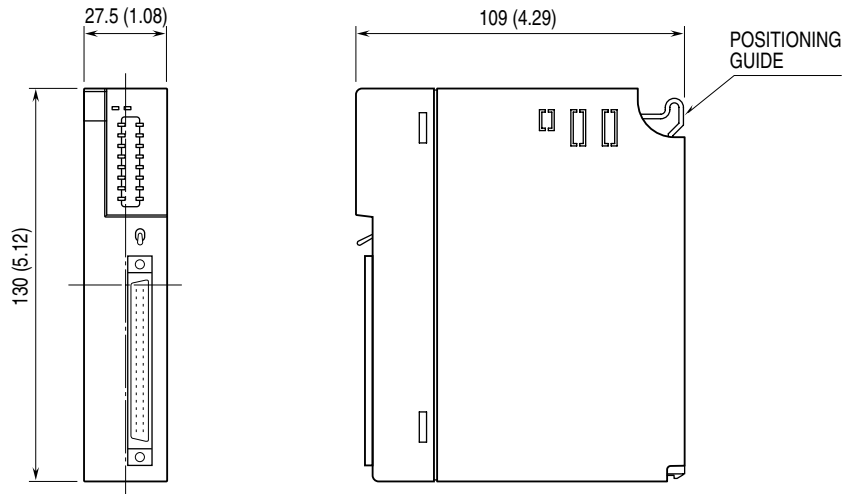
CHANNEL INDIVIDUAL SETTING

PARAMETER	AVAILABLE RANGE	DEFAULT SETTING
Data Logic	0: Close / 1: Open	0: Close
Strobe Logic	0: Close / 1: Open	0: Close
Data Exchange	0: Little-endian / 1: Big-endian	0: Little-endian

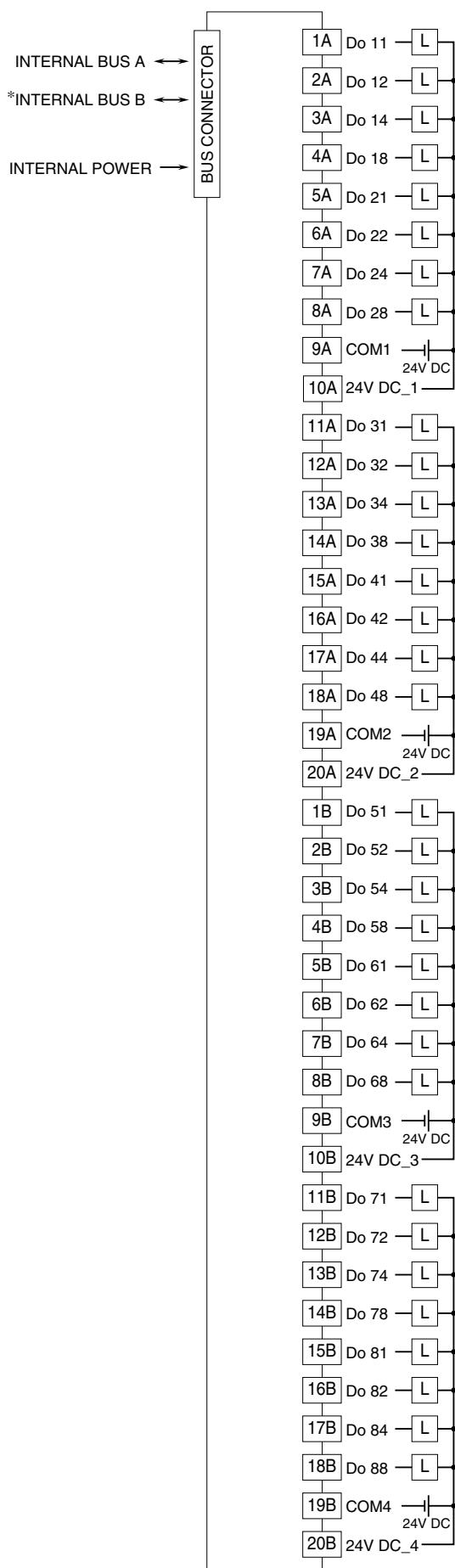
TERMINAL CONNECTIONS

Connect the unit as in the diagram below.

■ EXTERNAL DIMENSIONS unit: mm (inch)



CONNECTION DIAGRAM



*For dual redundant communication.

OUTPUT CONNECTOR (40 pins)

PIN NO.	ASSIGNMENT	PIN NO.	ASSIGNMENT
1A	Do 11	1B	Do 51
2A	Do 12 ($\times 10^0$)	2B	Do 52 ($\times 10^4$)
3A	Do 14	3B	Do 54
4A	Do 18	4B	Do 58
5A	Do 21	5B	Do 61
6A	Do 22 ($\times 10^1$)	6B	Do 62 ($\times 10^5$)
7A	Do 24	7B	Do 64
8A	Do 28	8B	Do 68
9A	COM1	9B	COM3
10A	24V DC_1	10B	24V DC_3
11A	Do 31	11B	Do 71
12A	Do 32 ($\times 10^2$)	12B	Do 72 ($\times 10^6$)
13A	Do 34	13B	Do 74
14A	Do 38	14B	Do 78
15A	Do 41	15B	Do 81
16A	Do 42 ($\times 10^3$)	16B	Do 82 ($\times 10^7$)
17A	Do 44	17B	Do 84
18A	Do 48	18B	Do 88 / Strobe
19A	COM2	19B	COM4
20A	24V DC_2	20B	24V DC_4

FUNCTIONS

OUTPUT HOLD or OUTPUT OFF

In normal conditions, the module outputs the signal from the preferred bus A.

When an error is detected, the output is switched to the data from the bus B.

• Output Hold

If both are in error, the module holds the signal and stands by until one of the communications recovers.

• Output OFF

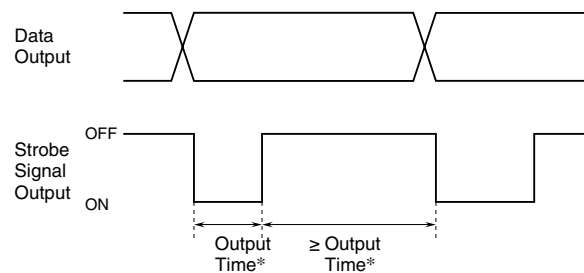
If both are in error, the module outputs OFF signals and stands by until one of the communications recovers.

At the startup, it outputs OFF until the communication is established and normal data is received.

STROBE SIGNAL CONTROL

Controls the timing of reading data. Strobe signal is output at every data output. Strobe signal cannot be supplied independently without data output.

STROBE SIGNAL TIMING CHART



*Strobe signal output time is selectable with SW3.