

BEFORE USE

Thank you for choosing us. 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 our sales office or representatives.

■ PACKAGE INCLUDES:

Remote control relay control 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

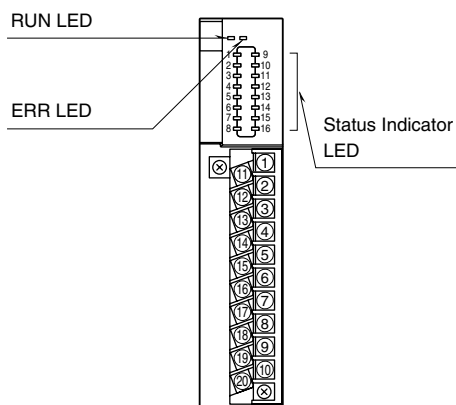
- Do not install cables close to noise sources (relay drive cable, high frequency line, etc.).
- Do not bind these cables together with those in which noises are present. Do not install them in the same duct.

INSTALLATION

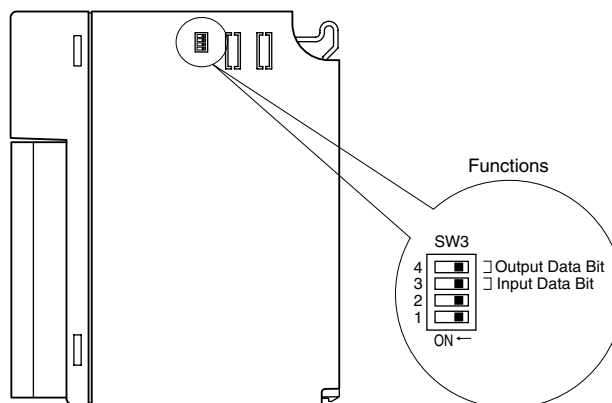
Use the Installation Base (model: R3-BSx).

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;

- OFF in abnormality;
- ON in normal operating conditions.

Input output status indicator: Red LED;

- 1 to 8: Output bit status, turns on with bit set ON.
- 9 to 16: Feedback input status, turns on with the input ON.

■ SIDE DIP SW

(*) Factory setting

• Input Data Bit: SW3-3

SW	INPUT DATA BIT	
	8 bit	16 bit
SW3-3	OFF (*)	ON

• Output Data Bit: SW3-4

SW	OUTPUT DATA BIT	
	8 bit	16 bit
SW3-4	ON	OFF (*)

Note: Be sure to set unused SW3-1 and 3-2 to OFF.

INPUT OUTPUT DATA BIT & DATA ALLOCATION

■ OUTPUT DATA BIT: 16 BITS (SW3-4: OFF)

When output data bit is 16 bits, set each output with 2 bits. The table below shows data allocation.

BIT	SETTING	OPERATION
0, 1	0, 0	No operation
	1, 0	Output 1 ON
	0, 1	Output 1 OFF
	1, 1	Output 1 RESET
2, 3	0, 0	No operation
	1, 0	Output 2 ON
	0, 1	Output 2 OFF
	1, 1	Output 2 RESET
4, 5	0, 0	No operation
	1, 0	Output 3 ON
	0, 1	Output 3 OFF
	1, 1	Output 3 RESET
6, 7	0, 0	No operation
	1, 0	Output 4 ON
	0, 1	Output 4 OFF
	1, 1	Output 4 RESET
8, 9	0, 0	No operation
	1, 0	Output 5 ON
	0, 1	Output 5 OFF
	1, 1	Output 5 RESET
10, 11	0, 0	No operation
	1, 0	Output 6 ON
	0, 1	Output 6 OFF
	1, 1	Output 6 RESET
12, 13	0, 0	No operation
	1, 0	Output 7 ON
	0, 1	Output 7 OFF
	1, 1	Output 7 RESET
14, 15	0, 0	No operation
	1, 0	Output 8 ON
	0, 1	Output 8 OFF
	1, 1	Output 8 RESET

By setting with 2 bits, the module operates as shown above. ON or OFF can be set consecutively. To output ON twice successively, set ON (1, 0), RESET (1, 1), and then set ON (1, 0) again.

■ OUTPUT DATA BIT: 8 BITS (SW3-4: ON)

When output data bit is 8 bits, set each output with 1 bit. The table below shows data allocation.

BIT	SETTING	OPERATION
0	0	Output 1 OFF
	1	Output 1 ON
1	0	Output 2 OFF
	1	Output 2 ON
2	0	Output 3 OFF
	1	Output 3 ON
3	0	Output 4 OFF
	1	Output 4 ON
4	0	Output 5 OFF
	1	Output 5 ON
5	0	Output 6 OFF
	1	Output 6 ON
6	0	Output 7 OFF
	1	Output 7 ON
7	0	Output 8 OFF
	1	Output 8 ON
8	----	Unused
9	----	Unused
10	----	Unused
11	----	Unused
12	----	Unused
13	----	Unused
14	----	Unused
15	-----	Unused

ON or OFF cannot be set consecutively, because when each bit is "1", ON is set and when each bit is "0", OFF is set.

■ INPUT DATA BIT: 16 BITS (SW3-3: ON)

When output data bit is 16 bits, display the status of feedback input for each output with 2 bits.

The table below shows data allocation.

BIT	DISPLAY	OPERATION
0	0	Feedback input for output 1 OFF
	1	Feedback input for output 1 ON
1	----	Reserved
2	0	Feedback input for output 2 OFF
	1	Feedback input for output 2 ON
3	----	Reserved
4	0	Feedback input for output 3 OFF
	1	Feedback input for output 3 ON
5	----	Reserved
6	0	Feedback input for output 4 OFF
	1	Feedback input for output 4 ON
7	----	Reserved
8	0	Feedback input for output 5 OFF
	1	Feedback input for output 5 ON
9	----	Reserved
10	0	Feedback input for output 6 OFF
	1	Feedback input for output 6 ON
11	----	Reserved
12	0	Feedback input for output 7 OFF
	1	Feedback input for output 7 ON
13	----	Reserved
14	0	Feedback input for output 8 OFF
	1	Feedback input for output 8 ON
15	----	Reserved

■ INPUT DATA BIT: 8 BITS (SW3-3: OFF)

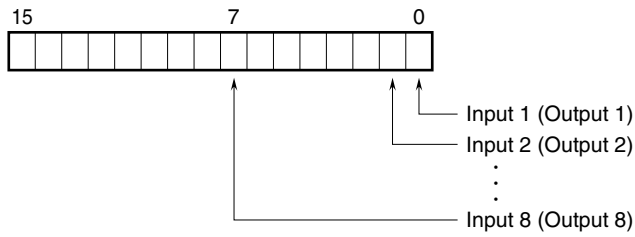
When output data bit is 8 bits, display the status of feedback input for each output with 1 bit.

The table below shows data allocation.

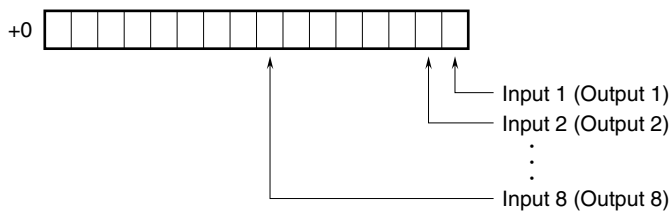
BIT	DISPLAY	OPERATION
0	0	Feedback input for output 1 OFF
	1	Feedback input for output 1 ON
1	0	Feedback input for output 2 OFF
	1	Feedback input for output 2 ON
2	0	Feedback input for output 3 OFF
	1	Feedback input for output 3 ON
3	0	Feedback input for output 4 OFF
	1	Feedback input for output 4 ON
4	0	Feedback input for output 5 OFF
	1	Feedback input for output 5 ON
5	0	Feedback input for output 6 OFF
	1	Feedback input for output 6 ON
6	0	Feedback input for output 7 OFF
	1	Feedback input for output 7 ON
7	0	Feedback input for output 8 OFF
	1	Feedback input for output 8 ON
8	----	Unused
9	----	Unused
10	----	Unused
11	----	Unused
12	----	Unused
13	----	Unused
14	----	Unused
15	----	Unused

DATA ASSIGNMENT

- I/O data length is 8 bit. (Bit access)

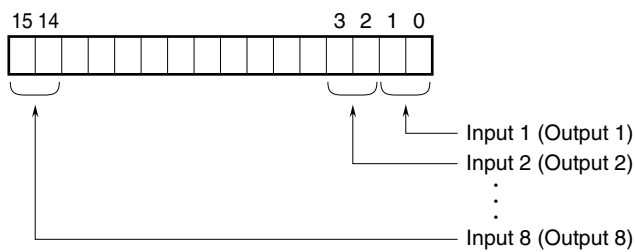


- I/O data length is 8 bit. (Word access)



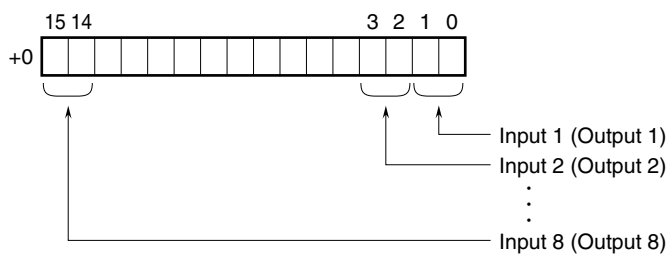
Each bit in the 1 word corresponds I/O.

- I/O data length is 16 bit. (Bit access)



2 bits corresponds one I/O.

- I/O data length is 16 bit. (Word access)



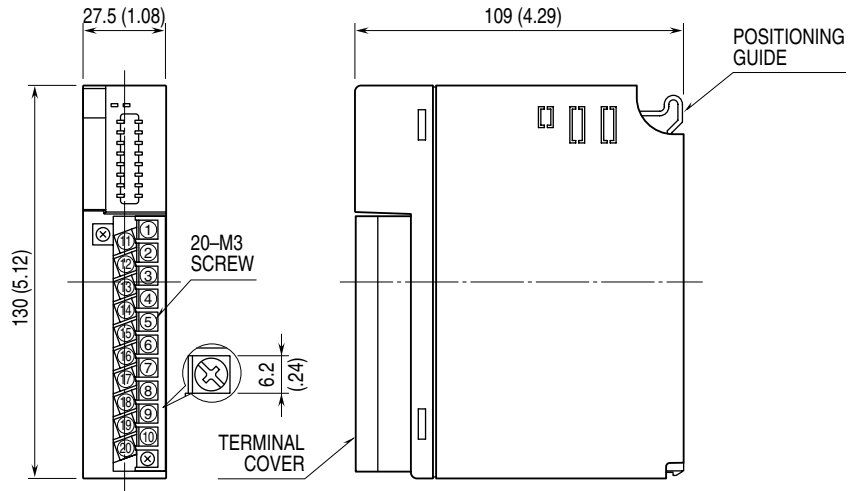
Each bit in the 1 word corresponds I/O.

2 bits corresponds one I/O.

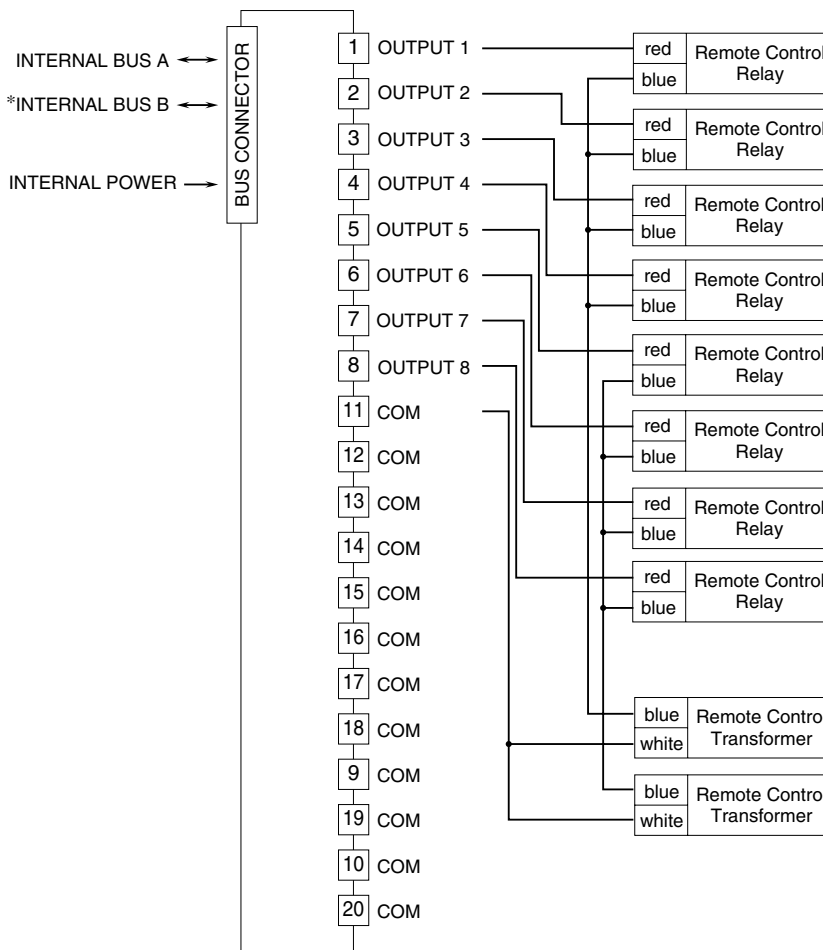
TERMINAL CONNECTIONS

Connect the unit as in the diagram below.

EXTERNAL DIMENSIONS unit: mm (inch)

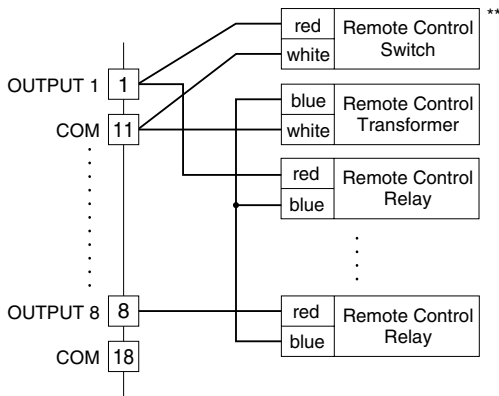


CONNECTION DIAGRAM



*For dual redundant communication.

■ Output Connection Example



** Maximum four remote control switches can be connected in parallel.

WIRING INSTRUCTIONS

■ SCREW TERMINAL

Torque: 0.5 N·m

■ SOLDERLESS TERMINAL

Refer to the drawing below for recommended ring tongue terminal size. Spade tongue type is also applicable. Solderless terminals with insulation sleeve do not fit.

Applicable wire size: 0.3 – 0.5 mm²

Recommended manufacturer: Japan Solderless Terminal MFG. Co., Ltd., Nichifu Co., Ltd.

