

Remote I/O R3 Series

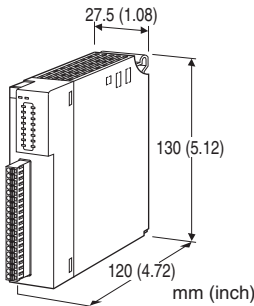
REMOTE CONTROL RELAY CONTROL MODULE

Functions & Features

- Controls remote control relays for lighting control with Fieldbus
- Applicable to the remote control relays already installed
- Monitors status of remote control relays with feedback inputs from signal lines

Typical Applications

- Monitors and controls of lighting in buildings



MODEL: R3S-RR8[1]

ORDERING INFORMATION

- Code number: R3S-RR8[1]
- Specify a code from below for [1].
(e.g. R3S-RR8W)

NO. OF CHANNELS

8: 8

[1] COMMUNICATION MODE

S: Single

W: Dual

RELATED PRODUCTS

- Interface Module (model: R3-NC1, NC3, NE1, NM1, NDx, NFL1)
- Firmware version V2.00 or higher

GENERAL SPECIFICATIONS

Connection

Internal bus: Via the Installation Base (model: R3-BSx)

Output: Separable tension clamp terminal

Power supply: Via the Installation Base (model: R3-BSx)

Applicable wire size: 0.2 to 1.25 mm², stripped length 10

mm

Isolation: Output to internal power

Input Data Length: 8 bit, 16 bit selectable with DIP switch

Output data length: 8 bit, 16 bit selectable with DIP switch

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 supplied.

OUTPUT SPECIFICATIONS

Number of output: 8 points

Common: All 8 points (12 terminal)

Rated load voltage: 24 V AC $\pm 10\%$ (supplied by the remote control transformer)

Load voltage frequency: 50 / 60 Hz

Maximum outputs provided at once: No limit

Output ON duration: 100 msec.

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: 40 mA

Insulation resistance: $\geq 100\text{ M}\Omega$ with 500 V DC

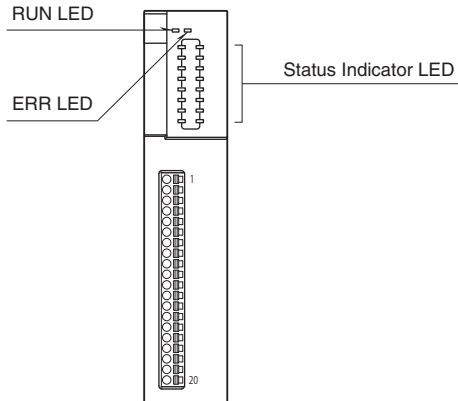
Dielectric strength: 1500 V AC @ 1 minute (output to internal power)

1500 V AC @ 1 minute (power input to FG; isolated on the power supply module)

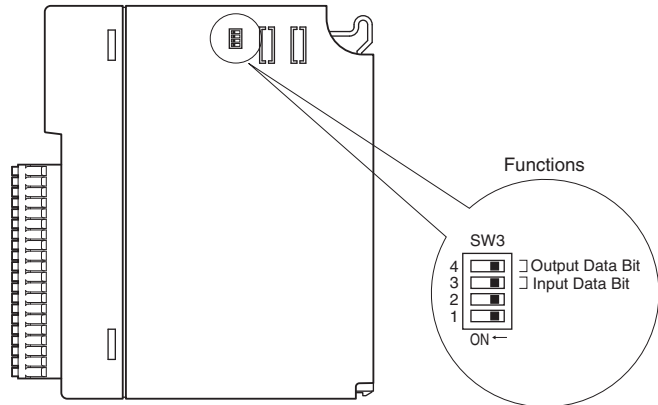


EXTERNAL VIEW

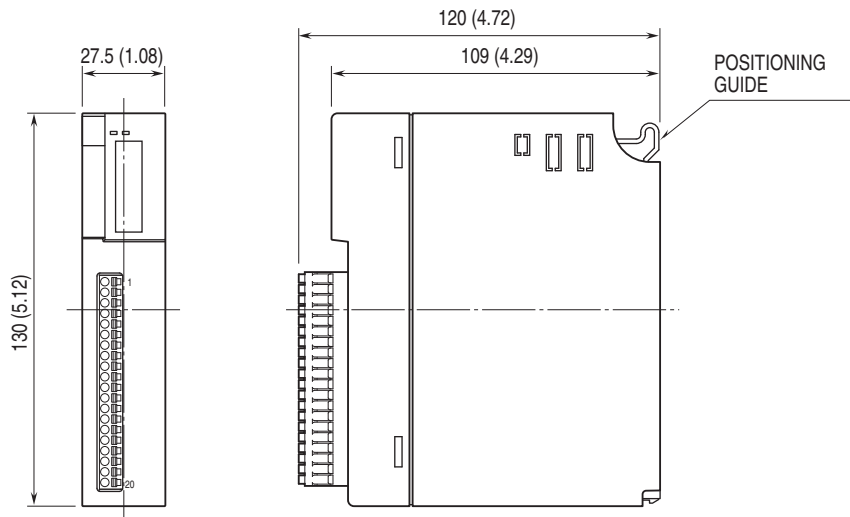
■ FRONT VIEW



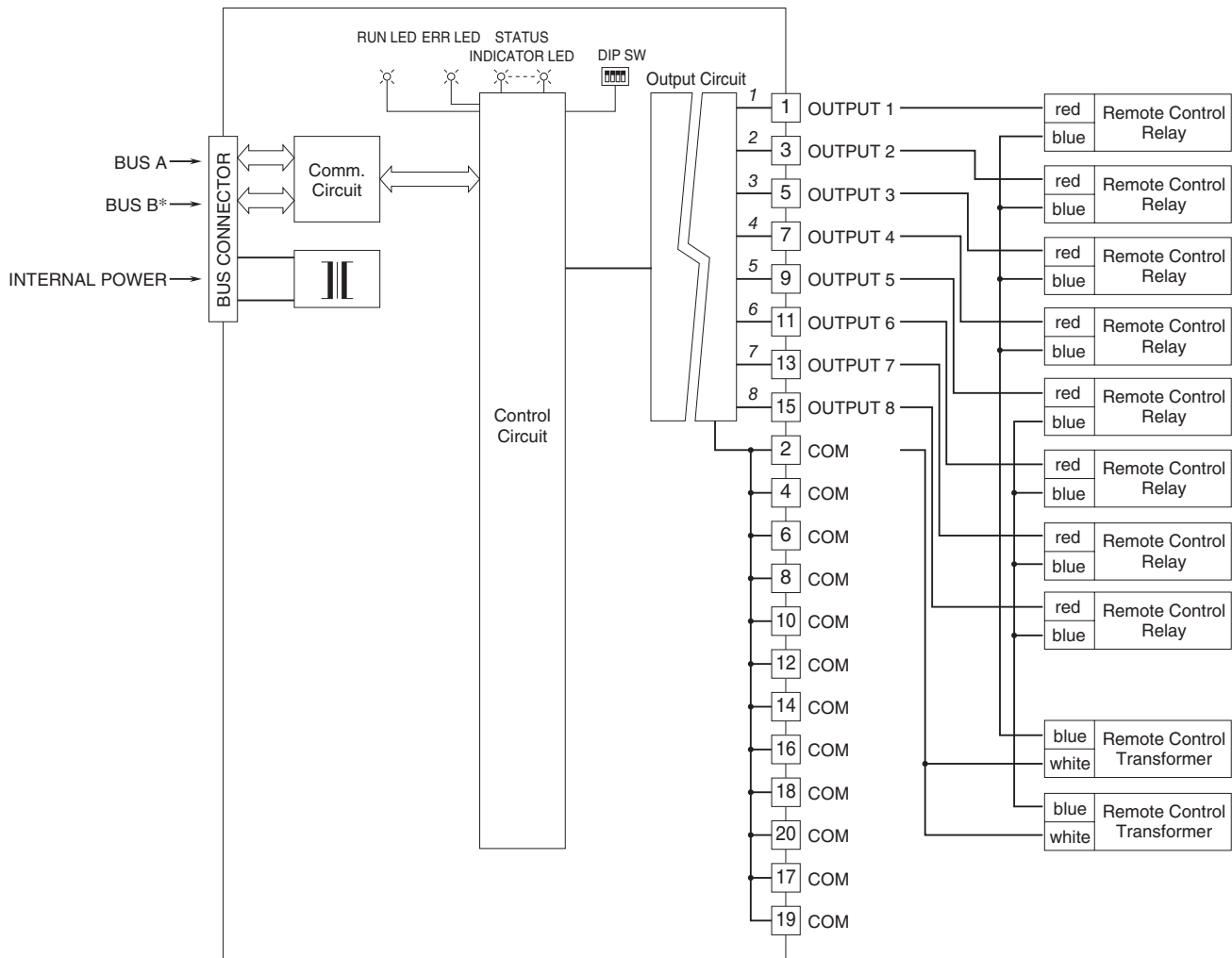
■ SIDE VIEW



EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Numbers in italic indicate LED No.s assigned to the front panel LEDs.
 * For dual redundant communication.

OUTPUT CONNECTOR

PIN No.	FUNCTION
1	Do 1
2	COM
3	Do 2
4	COM
5	Do 3
6	COM
7	Do 4
8	COM
9	Do 5
10	COM
11	Do 6
12	COM
13	Do 7
14	COM
15	Do 8
16	COM
17	COM
18	COM
19	COM
20	COM



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



Specifications are subject to change without notice.

