

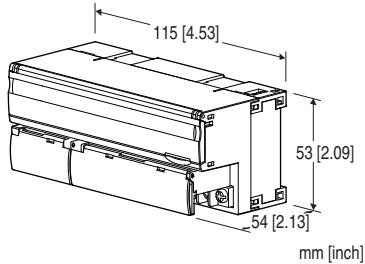
Remote I/O R7 Series

CC-Link I/O MODULE

(CC-Link V.1.10; remote control relay control, 4 points)

Functions & Features

- 4 points remote control relay control module for CC-Link



MODEL:R7C-RR4-[1][2]

ORDERING INFORMATION

- Code number: R7C-RR4-[1][2]
Specify a code from below for each of [1] and [2].
(e.g. R7C-RR4-AR/Q)
- Specify the specification for option code /Q
(e.g. /C01)

If you need factory setting, use Ordering Information Sheet (No. ESU-7801-AC).

I/O TYPE

RR4: Remote control relay control, 4 points

[1] POWER INPUT

DC Power

R: 24 V DC

(Operational voltage range 24 V $\pm 10\%$, ripple 10 %p-p max.)

Universal

AR: 24 V AC/24 V DC (universal)

(Operational voltage range 24 V AC $\pm 10\%$, 50 - 60 Hz /
24 V DC $\pm 10\%$, ripple 10 %p-p max.)

[2] OPTIONS

blank: none

/Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q

COATING (For the detail, refer to our web site.)

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

CAUTION

- Extension modules cannot be connected.

RECOMMENDED PRODUCTS (OPERATION CHECKED)

Remote control relay:

BR-12D, BR-22D (Mitsubishi Electric)

WR6165 (Panasonic)

Remote control transformer:

BRT-10B, BRT-20B (Mitsubishi Electric)

WR2301 (Panasonic)

Remote control switch

WR8501 (Panasonic)

GENERAL SPECIFICATIONS

Connection: M3 separable screw terminal (torque 0.5 N·m)

Solderless terminal: Refer to the drawing at the end of the section.

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

Applicable wire size: 0.25 to 1.65 mm² (AWG 22 to 16)

Screw terminal: Nickel-plated steel

Housing material: Flame-resistant resin (gray)

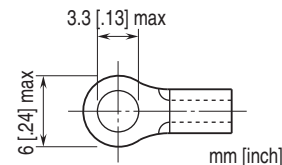
Isolation: Output to power to CC-Link or FG

Status indicator LED: PWR

I/O status indicator: Feedback input status turns on with the input supplied.

Output status LED turns on with the output ON.

■Recommended solderless terminal



CC-Link COMMUNICATION

CC-Link: Ver.1.10

Connector: M3 screw terminal

Network cable: CC-Link cable designated by Mitsubishi Electric

Station number: 1 - 64 (rotary switch, default: 00)

Station type: Remote I/O device

Data allocation: 1

Baud rate setting: 156 kbps (default), 625 kbps, 2.5 Mbps, 5 Mbps, 10 Mbps (rotary switch)

Terminating resistor: Built-in (side DIP SW, default: disable)

Status indicator LEDs: RUN, ERR, SD, RD

OUTPUT SPECIFICATIONS

Common: 1 common per 4 points (4 terminals)

Maximum outputs applicable at once: No limit

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

Load voltage frequency: 50 / 60 Hz

INSTALLATION

Current consumption

•AC: Approx. 100 mA

•DC: Approx. 65 mA

Operating temperature: -10 to +55°C (14 to 131°F)

Storage temperature: -20 to +65°C (-4 to +149°F)

Operating humidity: 30 to 90 %RH (non-condensing)

Atmosphere: No corrosive gas or heavy dust

Mounting: DIN rail (35 mm rail)

Weight: 170 g (0.37 lb)

PERFORMANCE

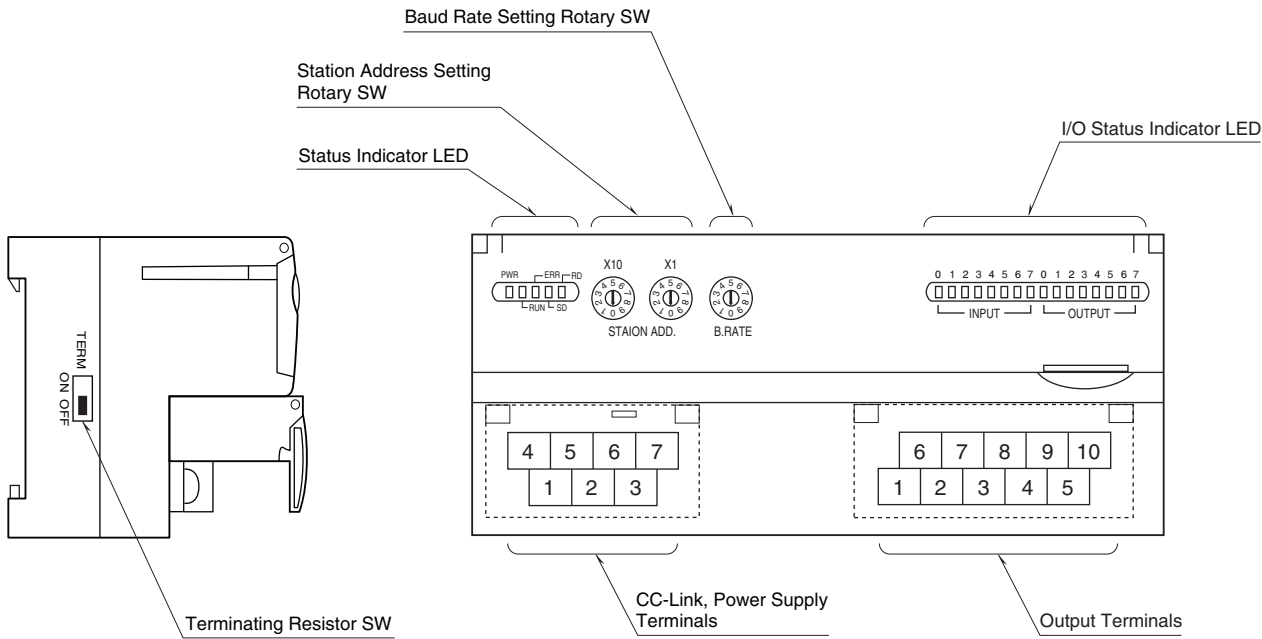
Insulation resistance: $\geq 100\text{ M}\Omega$ with 500 V DC

Dielectric strength: 1500 V AC @ 1 minute (output to CC-Link or FG to power)

EXTERNAL VIEW

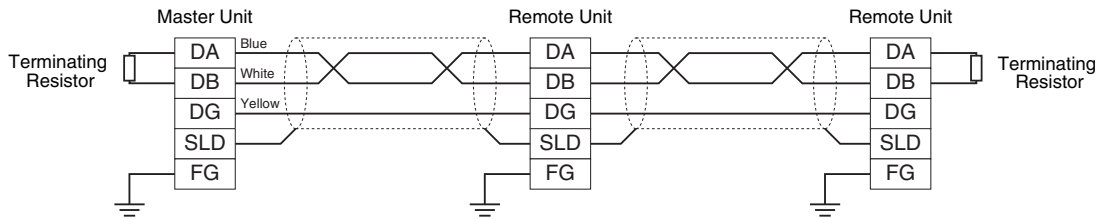
■ SIDE VIEW

■ FRONT VIEW



COMMUNICATION CABLE CONNECTIONS

■ MASTER CONNECTION



Note: Be sure to connect the terminating resistor across DA and DB at both ends of communication line.
When this unit is located at an end, turn the terminating resistor SW ON.
The Master Unit can be located at not only both ends but also any node of the of communication line.

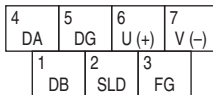
TERMINAL ASSIGNMENTS

■ OUTPUT TERMINAL ASSIGNMENT

6	7	8	9	10
NC	Y0	Y1	Y2	Y3
1	2	3	4	5
NC	C0	C1	C2	C3

NO.	ID	FUNCTION	NO.	ID	FUNCTION
1	NC	No connection	6	NC	No connection
2	C0	Common 0	7	Y0	Output 0
3	C1	Common 1	8	Y1	Output 1
4	C2	Common 2	9	Y2	Output 2
5	C3	Common 3	10	Y3	Output 3

■ POWER SUPPLY, CC-LINK TERMINAL ASSIGNMENT



NO.	ID	FUNCTION, NOTES
1	DB	White
2	SLD	Shield
3	FG	FG
4	DA	Blue
5	DG	Yellow
6	U (+)	Power input (+)
7	V (-)	Power input (-)

INDICATOR LED

■ STATUS INDICATOR LED

PWR	RUN	ERR	SD*1	RD	STATUS*2
ON	ON	BL	BL	ON	Communicates normally with occasional CRC errors due to noise interference.
ON	ON	BL	BL	ON	Communicates normally but the Baud Rate and/or Station Address switches failed. ERR LED blinks approximately in 0.5 seconds intervals.
ON	ON	BL	BL	OFF	----
ON	ON	BL	OFF	ON	CRC error detected in the received data. Unable to respond.
ON	ON	BL	OFF	OFF	----
ON	ON	OFF	BL	ON	Normal communication
ON	ON	OFF	BL	OFF	----
ON	ON	OFF	OFF	ON	Unable to receive data addressed to the station.
ON	ON	OFF	OFF	OFF	----
ON	OFF	BL	BL	ON	Polling response is made but CRC error is detected in received refresh data.
ON	OFF	BL	BL	OFF	----
ON	OFF	BL	OFF	ON	CRC error detected in the data addressed to the station.
ON	OFF	BL	OFF	OFF	----
ON	OFF	OFF	BL	ON	Link is not started.
ON	OFF	OFF	BL	OFF	----
ON	OFF	OFF	OFF	ON	No data addressed to the station. Or unable to receive data addressed to the station due to noise interference. (Missing parts of the data sent from the master)
ON	OFF	OFF	OFF	OFF	Unable to receive data due to wire breakdown
ON	OFF	ON	OFF	ON/OFF	Faulty Baud Rate and/or Station Address setting
OFF	OFF	OFF	OFF	OFF	Power input removed or power supply failure.

OFF = OFF, ON = ON, BL = Blinking

*1. SD LED which is blinking may appear to be ON with high baud rate especially when fewer modules are connected.

*2. LED combinations indicated with "----" do not occur in normal operation unless LED failure or the like occurs.

■ I/O STATUS INDICATOR LED

Feedback input status and output bit status are indicated with red LED.

ON: LED ON

OFF: LED OFF

DATA ALLOCATION

■ R7C-RR4

Interval-timed Response (X)

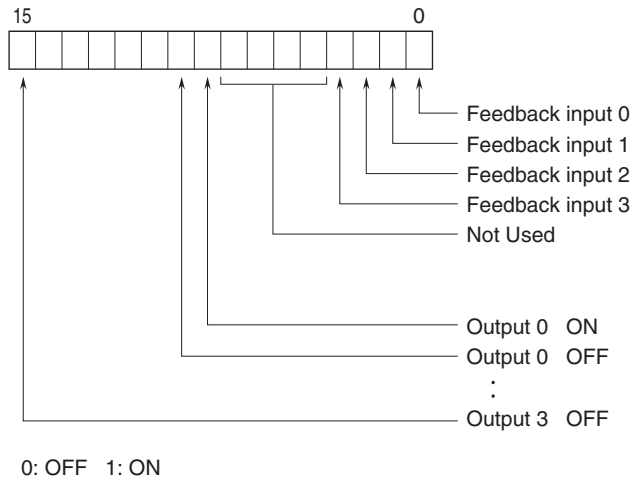
RX(n+0)	R7C-RR4
RX(n+1)	Unused

Refresh Data (Y)

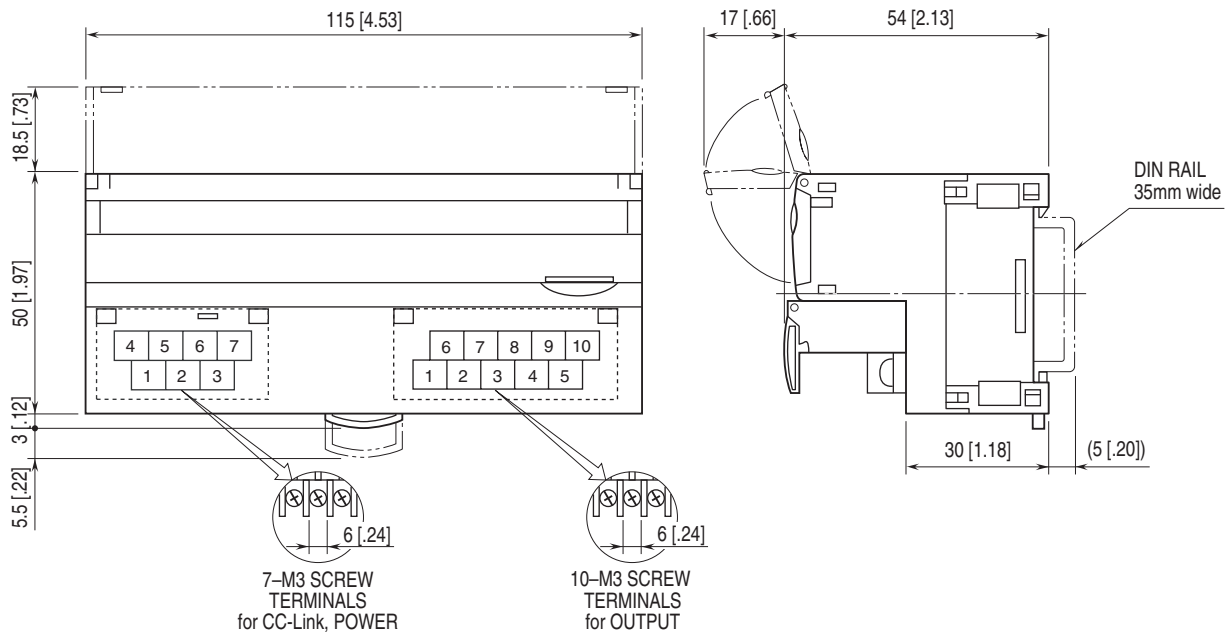
RY(n+0)	R7C-RR4
RY(n+1)	Unused

I/O DATA DESCRIPTIONS

■ R7C-RR4

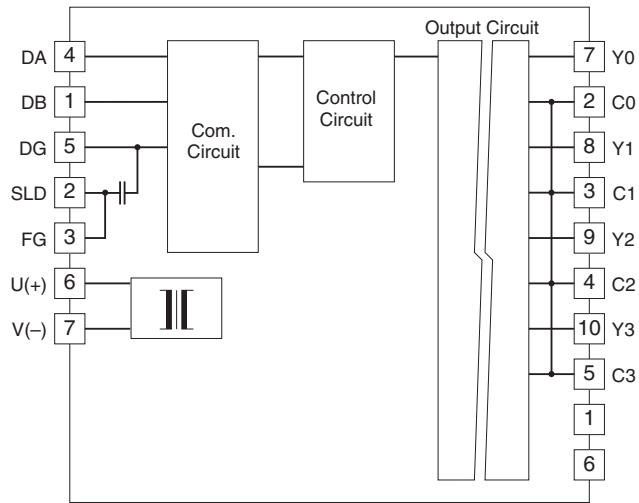


EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]

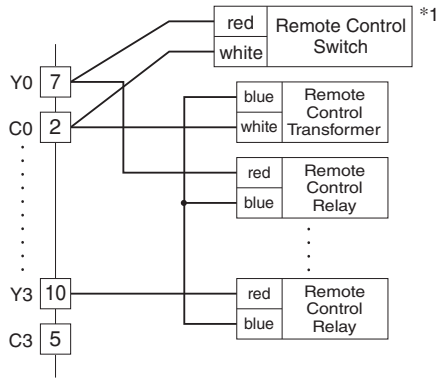


SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

Caution: FG terminal is NOT a protective conductor terminal.



■ Output Connection Example



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



Specifications are subject to change without notice.