

Remote I/O R7F4D Series

/C02: Polyurethane coating

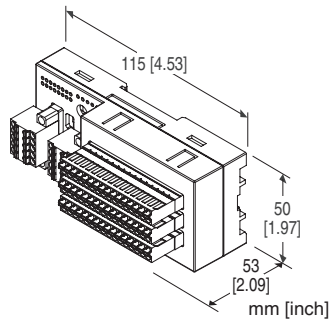
/C03: Rubber coating

CC-Link I/O MODULE

(PNP transistor output, 16 points each, tension clamp terminal block)

Functions & Features

- Interchanges discrete I/O signals with the fieldbus (CC-Link)



MODEL: R7F4DC-DC16B-C-R[1]

ORDERING INFORMATION

- Code number: R7F4DC-DC16B-C-R[1]
Specify a code from below for [1].
(e.g. R7F4DC-DC16B-C-R/Q)
- Specify the specification for option code /Q
(e.g. /C01)

I/O TYPE

DC16B: PNP transistor output, 16 points

TERMINAL BLOCK

- C: Tension clamp terminal block for power
Tension clamp terminal block for communication
Tension clamp terminal block for output

POWER INPUT

DC Power

R: 24 V DC

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

[1] OPTIONS

blank: none

/Q: With options (specify the specification)

SPECIFICATIONS OF OPTION: Q

COATING (For the detail, refer to M-System's web site.)

/C01: Silicone coating

RELATED PRODUCTS

- CSP+ file

The CSP+ file are downloadable at M-System's web site.

CSP+ file is also downloadable at CC-Link Partner Association's web site.

GENERAL SPECIFICATIONS

Connection

CC-Link: Tension clamp terminal block

Power supply, exc. supply: Tension clamp terminal

Output: Tension clamp terminal block

Housing material: Flame-resistant resin (gray)

Isolation: Output or exc. supply to CC-Link to power supply to FE1

Discrete output status indicator LED: Green LED; turns on with output ON

CC-Link COMMUNICATION

Transmission: CC-Link ver.1.10

Network cable: CC-Link cable designated by Mitsubishi Electric

Station type: Remote I/O device

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

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

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

Status indicator LEDs: Power, Run, Error, SD, RD

For details, refer to the users manual.

OUTPUT SPECIFICATIONS

Common: Positive common (PNP) per 16 points

Number of output: 16 points

Maximum outputs applicable at once: No limit (at 24 V DC)

Rated load voltage: 24 V DC \pm 10 %, ripple 5 %p-p max., \leq 1 A (including discrete output load charge); rated current 8 A

Rated output current: 0.1 A per point, 1.6 A per common

Residual voltage: \leq 1.2 V

Leakage current: \leq 0.1 mA

ON delay: \leq 0.2 msec.

OFF delay: \leq 0.5 msec.

With shortcircuit protection

With overheat protection

(When driving an inductive load, connect a diode in parallel with the load.)

INSTALLATION

Current consumption

•DC: Approx. 35 mA

(contact I/O load charge is not included)

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: Surface or DIN rail (35 mm rail)

Weight: 150 g (0.33 lb)

PERFORMANCE

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

Dielectric strength: 1500 V AC @ 1 minute

(output or exc. supply to communication/power supply)

STANDARDS & APPROVALS

EU conformity:

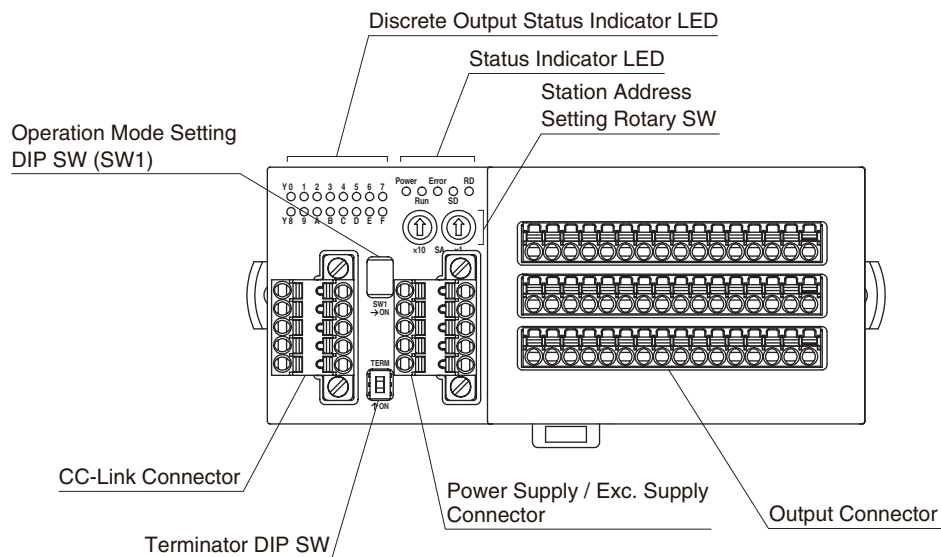
EMC Directive

EMI EN 61000-6-4

EMS EN 61000-6-2

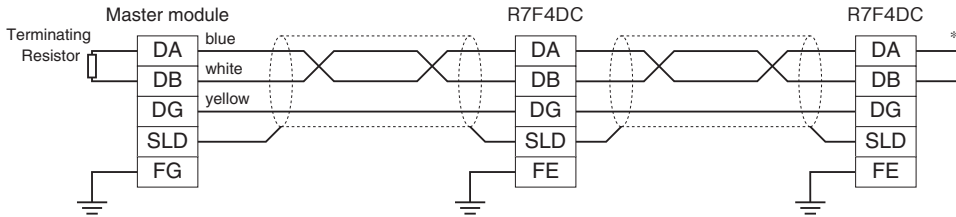
RoHS Directive

EXTERNAL VIEW



COMMUNICATION CABLE WIRING

■ MASTER CONNECTION



*1. Turn on the terminator DIP switch to activate the internal terminating resistor.

TERMINAL ASSIGNMENTS

■ CC-Link, POWER SUPPLY, EXC. SUPPLY ASSIGNMENT

Unit side connector: MCV1,5/5-GF-3,5 (Phoenix contact)

Cable side connector: TFMC1,5/5-STF-3,5 (Phoenix contact)

Applicable wire size: 0.2 - 1.5mm²

Stripped length: 10mm

Recommended solderless terminal:

AI0,25-10YE 0.25mm² (Phoenix contact)

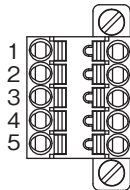
AI0,34-10TQ 0.34mm² (Phoenix contact)

AI0,5-10WH 0.5mm² (Phoenix contact)

AI0,75-10GY 0.75mm² (Phoenix contact)

AI1-10 1.0mm² (Phoenix contact)

AI1,5-10 1.5mm² (Phoenix contact)



· CC-Link

PIN NO.	ID	FUNCTION
1	FE	Function earth
2	SLD	Shield
3	DB	DB
4	DG	DG
5	DA	DA

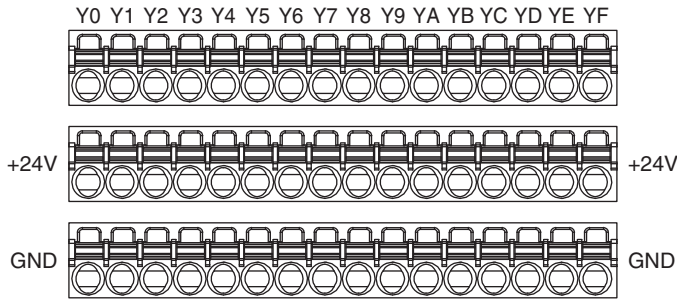
· POWER SUPPLY / EXC. SUPPLY

PIN NO.	ID	FUNCTION
1	PWR+	Power supply +
2	PWR-	Power supply -
3	FE1	Grounding
4	SNSR.EXC+	Exc. supply +
5	SNSR.EXC-	Exc. supply -

Note: The numbers marked on the connector have no relationship to the pin number of the unit. Wire according to the instruction manual of the unit.

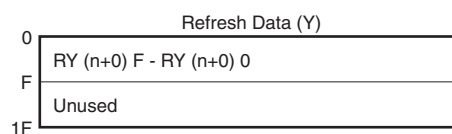
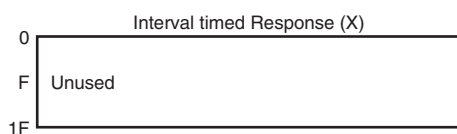
OUTPUT TERMINAL ASSIGNMENT

Unit side connector: MCV1,5/16-G-3,5 (Phoenix contact)
 Cable side connector: FMC1,5/16-ST-3,5 (Phoenix contact)
 Applicable wire size: 0.2 - 1.5mm²
 Stripped length: 10mm
 Recommended solderless terminal:
 AI0,25-10YE 0.25mm² (Phoenix contact)
 AI0,34-10TQ 0.34mm² (Phoenix contact)
 AI0,5-10WH 0.5mm² (Phoenix contact)
 AI0,75-10GY 0.75mm² (Phoenix contact)
 AI1-10 1.0mm² (Phoenix contact)
 AI1,5-10 1.5mm² (Phoenix contact)



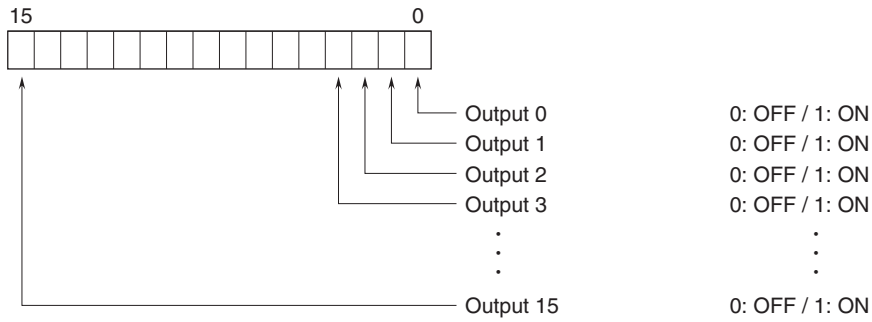
PIN NO.	ID	FUNCTION	PIN NO.	ID	FUNCTION
Y0	1	Y0	Y8	1	Y8
	2	+24V		2	+24V
	3	GND		3	GND
Y1	1	Y1	Y9	1	Y9
	2	+24V		2	+24V
	3	GND		3	GND
Y2	1	Y2	YA	1	YA
	2	+24V		2	+24V
	3	GND		3	GND
Y3	1	Y3	YB	1	YB
	2	+24V		2	+24V
	3	GND		3	GND
Y4	1	Y4	YC	1	YC
	2	+24V		2	+24V
	3	GND		3	GND
Y5	1	Y5	YD	1	YD
	2	+24V		2	+24V
	3	GND		3	GND
Y6	1	Y6	YE	1	YE
	2	+24V		2	+24V
	3	GND		3	GND
Y7	1	Y7	YF	1	YF
	2	+24V		2	+24V
	3	GND		3	GND

DATA ALLOCATION

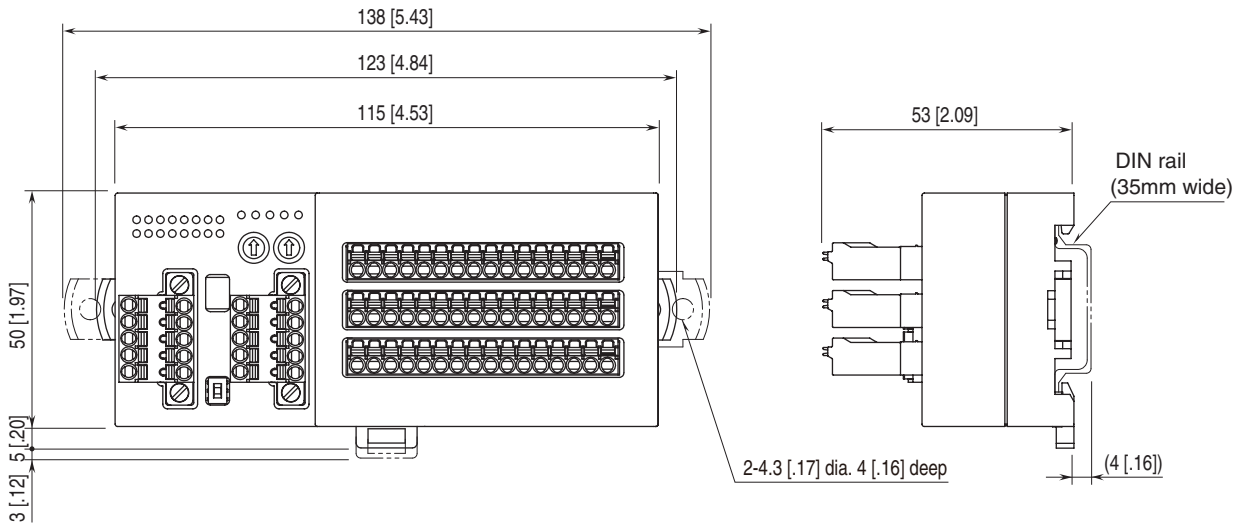


I/O DATA DESCRIPTIONS

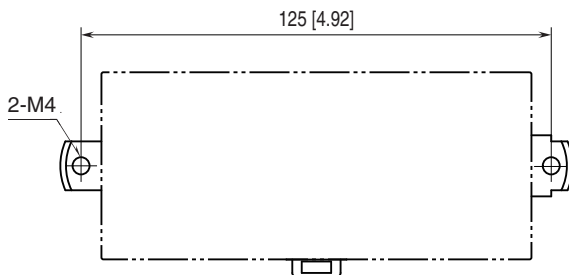
■ DISCRETE OUTPUT



EXTERNAL DIMENSIONS unit: mm [inch]



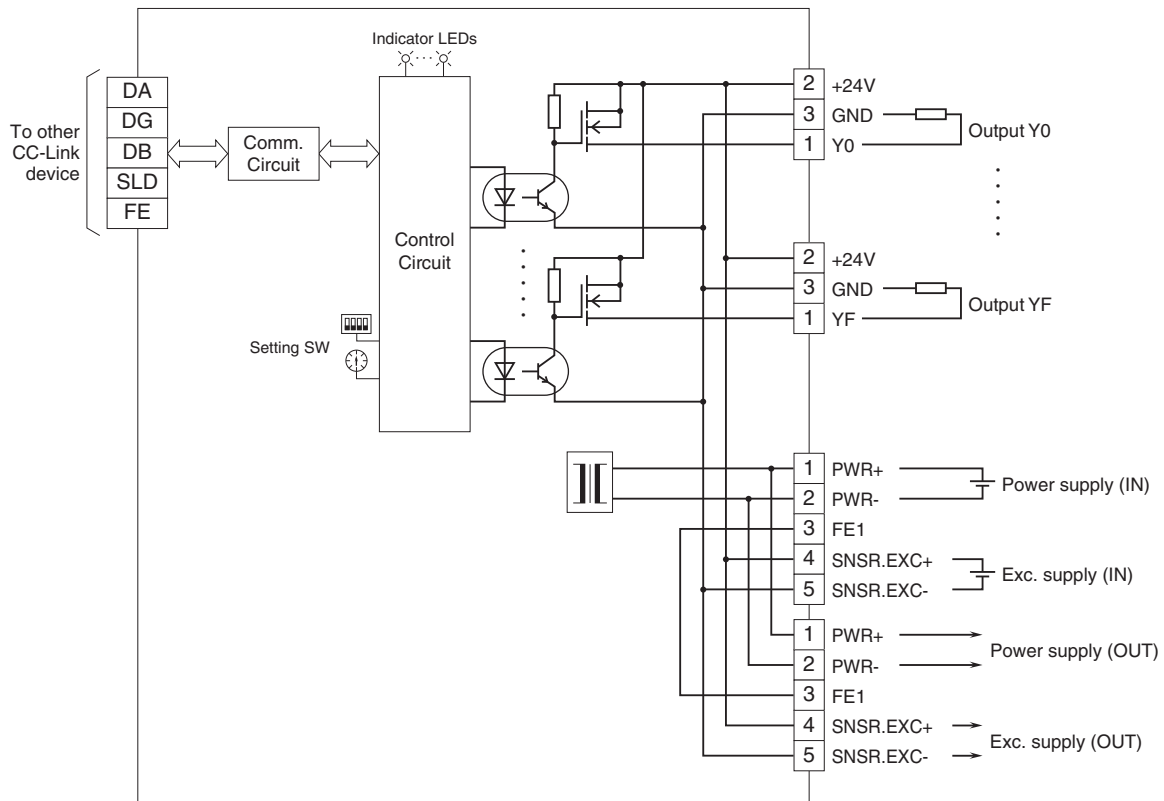
MOUNTING REQUIREMENTS unit: mm [inch]



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

Note: In order to improve EMC performance, bond the FE1 terminal to ground.

Caution: FE1 terminal is NOT a protective conductor terminal.



Specifications are subject to change without notice.