

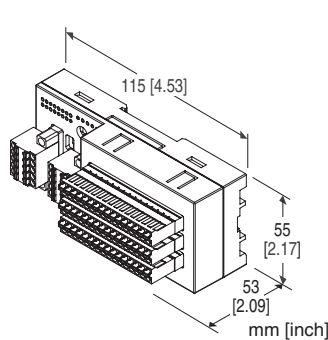
Remote I/O R7F4D Series

CC-Link I/O MODULE

(PNP discrete input, 16 points, tension clamp terminal block)

Functions & Features

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



MODEL: R7F4DC-DA16B-C-R[1]

ORDERING INFORMATION

- Code number: R7F4DC-DA16B-C-R[1]
Specify a code from below for [1].
(e.g. R7F4DC-DA16B-C-R/Q)
- Specify the specification for option code /Q
(e.g. /C01)

I/O TYPE

DA16B: PNP discrete input, 16 points

TERMINAL BLOCK

- C: Tension clamp terminal block for power
Tension clamp terminal block for communication
- Tension clamp terminal block for I/O

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 our web site.)

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

RELATED PRODUCTS

- CSP+ file

The CSP+ file are downloadable at our 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 block

Input: Tension clamp terminal block

Housing material: Flame-resistant resin (gray)

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

Discrete input status indicator LED: Green LED turns on with input 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

Data allocation: 1

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)

INPUT SPECIFICATIONS

Common: Negative common (PNP) per 16 points

Number of input: 16 points

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

Sensor excitation: 24 V DC $\pm$ 10 %; ripple 5 %p-p max., $\leq$ 2 A (including discrete input load charge); rated current 8 A

ON voltage / current: $\geq$ 17 V DC (X0 through XF to GND) / $\geq$ 2.3 mA

OFF voltage / current: $\leq$ 5 V DC (X0 through XF to GND) / $\leq$ 0.75 mA

Input current: $\leq$ 3.5 mA per point at 24 V DC

Input resistance: Approx. 7.2 k Ω

ON delay: $\leq$ 0.5 msec.

OFF delay: $\leq$ 0.5 msec.

INSTALLATION

Current consumption

- DC: Approx. 26 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

(input or exc. supply to CC-Link to power supply to FE1)

STANDARDS & APPROVALS

EU conformity:

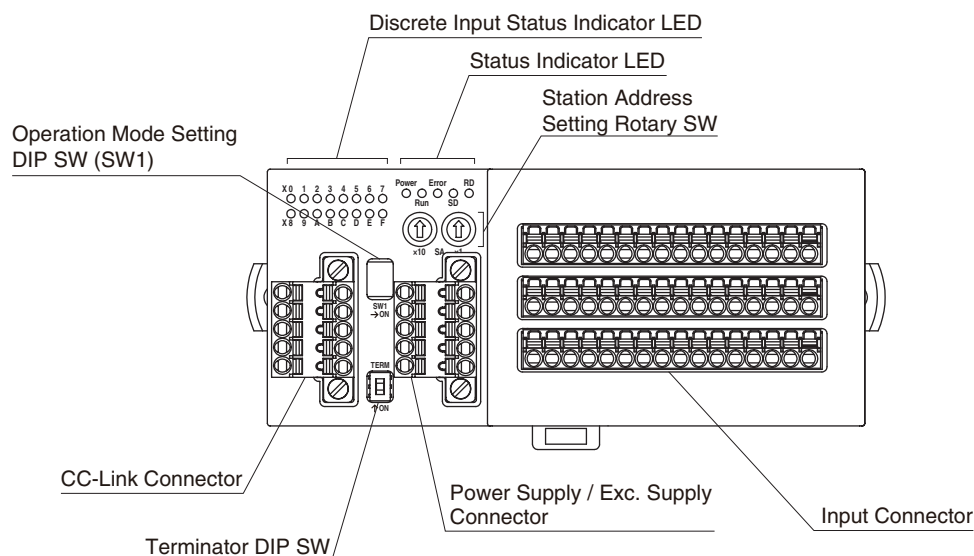
EMC Directive

EMI EN 61000-6-4

EMS EN 61000-6-2

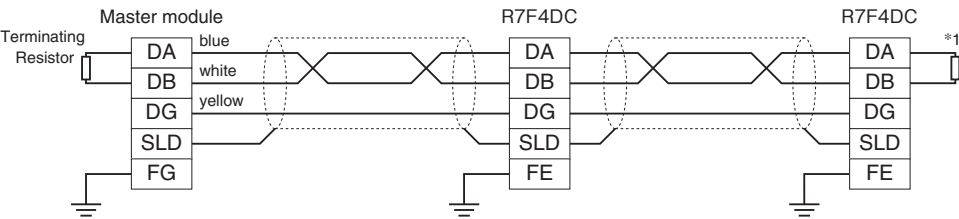
RoHS Directive

EXTERNAL VIEW



COMMUNICATION CABLE CONNECTIONS

MASTER CONNECTION

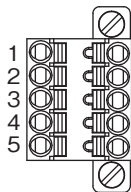


*1. Turn on the terminator DIP switch to activate the internal terminating resistor.

TERMINAL ASSIGNMENTS

CC-Link, POWER SUPPLY, EXC. SUPPLY ASSIGNMENT

- Unit side connector: MCV1,5/5-GF-3,5 (Phoenix contact)
- Cable side connector: TFM1,5/5-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

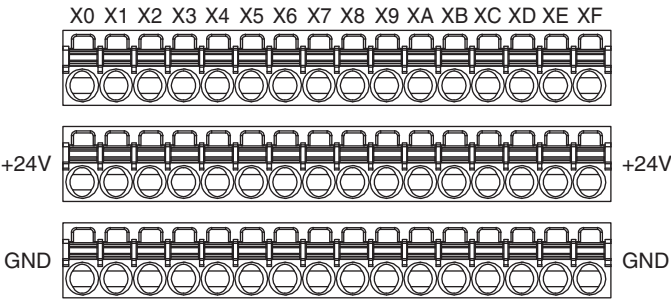
Note: The numbers marked on the connector have no relationship to the pin number of the unit. Wire according to the instruction manual of the unit.

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 -

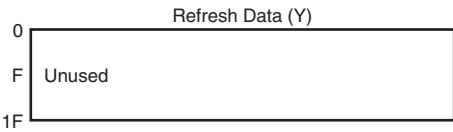
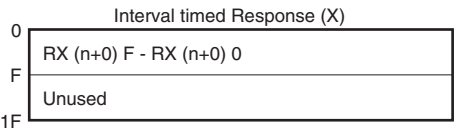
■ INPUT TERMINAL ASSIGNMENT

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)



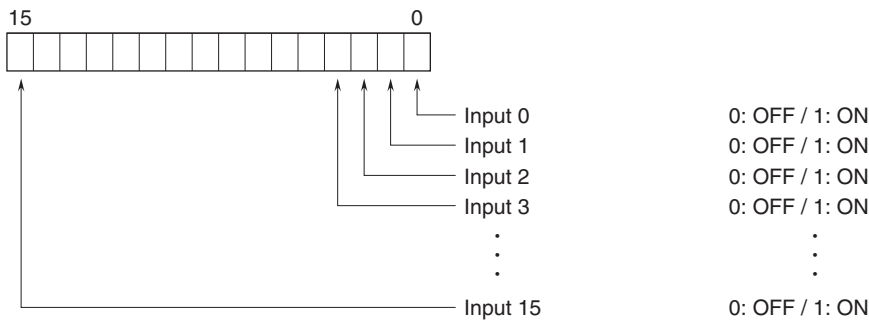
PIN NO.	ID	FUNCTION	PIN NO.	ID	FUNCTION		
X0	1	X0	Input 0	X8	1	X8	Input 8
	2	+24V	24V DC		2	+24V	24V DC
	3	GND	0V		3	GND	0V
X1	1	X1	Input 1	X9	1	X9	Input 9
	2	+24V	24V DC		2	+24V	24V DC
	3	GND	0V		3	GND	0V
X2	1	X2	Input 2	XA	1	XA	Input 10
	2	+24V	24V DC		2	+24V	24V DC
	3	GND	0V		3	GND	0V
X3	1	X3	Input 3	XB	1	XB	Input 11
	2	+24V	24V DC		2	+24V	24V DC
	3	GND	0V		3	GND	0V
X4	1	X4	Input 4	XC	1	XC	Input 12
	2	+24V	24V DC		2	+24V	24V DC
	3	GND	0V		3	GND	0V
X5	1	X5	Input 5	XD	1	XD	Input 13
	2	+24V	24V DC		2	+24V	24V DC
	3	GND	0V		3	GND	0V
X6	1	X6	Input 6	XE	1	XE	Input 14
	2	+24V	24V DC		2	+24V	24V DC
	3	GND	0V		3	GND	0V
X7	1	X7	Input 7	XF	1	XF	Input 15
	2	+24V	24V DC		2	+24V	24V DC
	3	GND	0V		3	GND	0V

DATA ALLOCATION

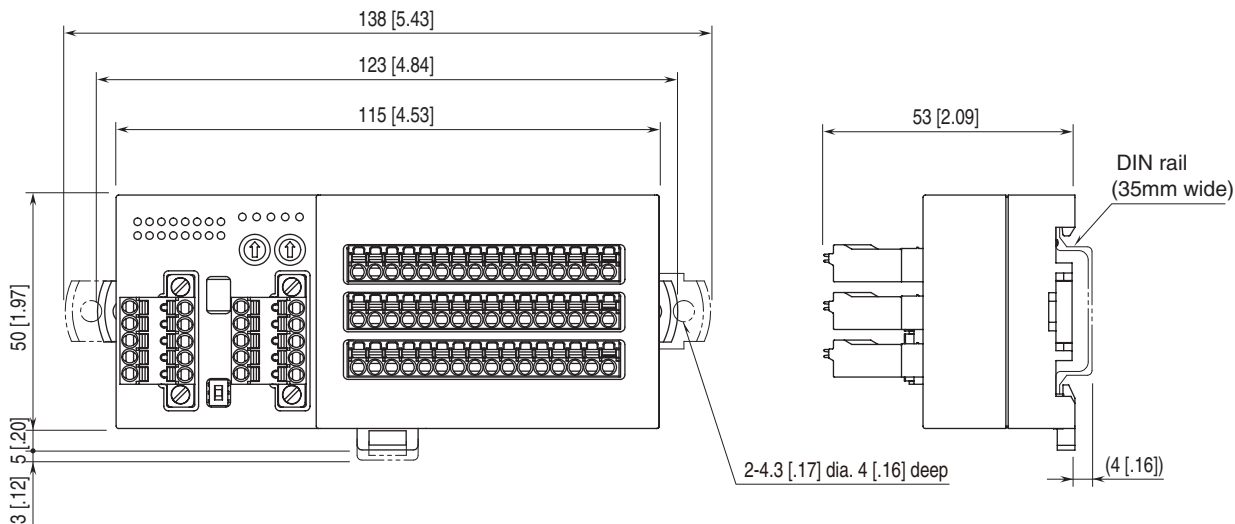


I/O DATA DESCRIPTIONS

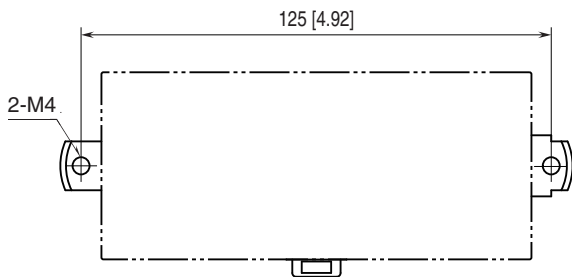
■ DISCRETE INPUT



EXTERNAL DIMENSIONS unit: mm [inch]



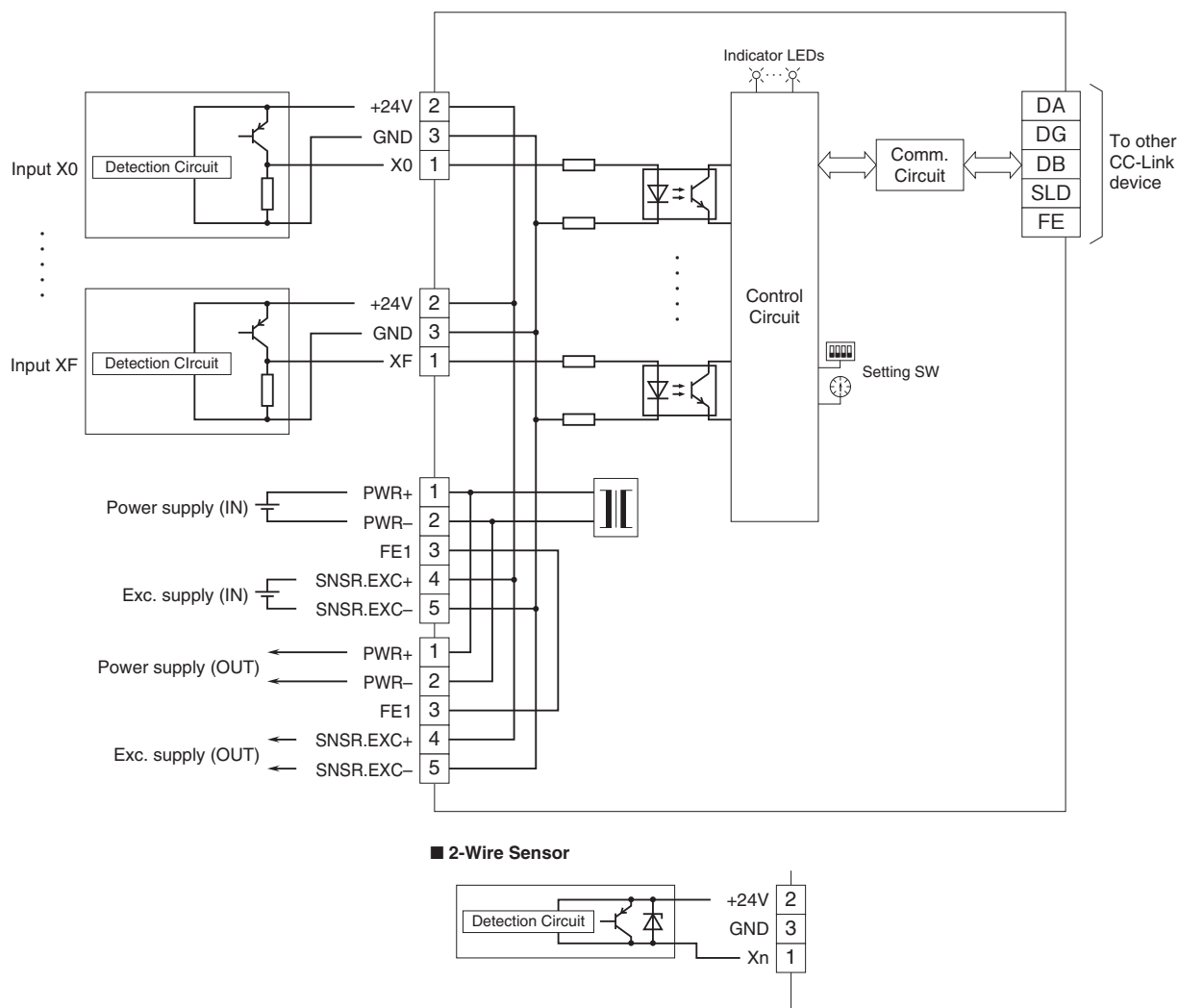
MOUNTING REQUIREMENTS unit: mm [inch]



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.