

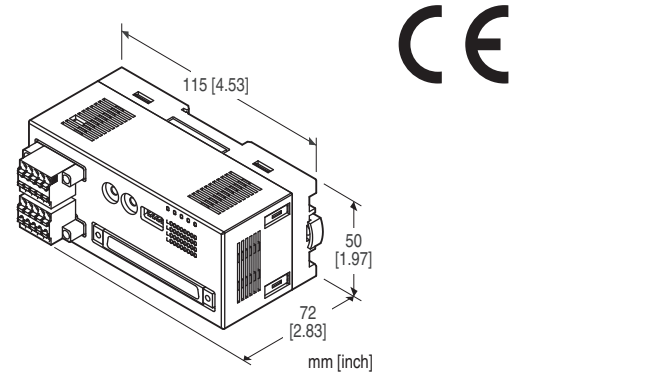
Remote I/O R7F4H Series

CC-Link I/O MODULE

(NPN/PNP discrete input, PNP discrete output, 16 points each, FCN connector)

Functions & Features

- Remote I/O module to input/output digital I/O signal to field bus (CC-Link)



MODEL: R7F4HC-DAC32D-K-R[1]

ORDERING INFORMATION

- Code number: R7F4HC-DAC32D-K-R[1]
Specify a code from below for [1].
(e.g. R7F4HC-DAC32D-R/Q)
- Specify the specification for option code /Q
(e.g. /C01)

I/O TYPE

DAC32D: NPN/PNP discrete input & PNP discrete output, 16 points each

TERMINAL BLOCK

K: Tension clamp terminal block for power supply
Tension clamp terminal block for power supply for communication
FCN connector 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 M-System's web site.)

- /C01: Silicone coating
- /C02: Polyurethane coating
- /C03: Rubber 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:** Tension clamp terminal block
 - I/O signal, exc. supply:** FCN connector
- Housing material:** Flame-resistant resin (gray)
- Isolation:** I/O or exc. supply to CC-Link to power supply to FE1
- Discrete I/O status indicator LED:** Green LED turns on with I/O 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:** Positive or negative common (NPN/PNP) per 16 points
- Number of inputs:** 16
- Maximum inputs applicable at once:** No limit (at 24 V DC)
- Rated input voltage:** 24 V DC \pm 10 %; ripple 5 %p-p max.
- ON voltage / current:** \geq 17 V DC (input - COM) / \geq 2.3 mA
- OFF voltage / current:** \leq 5 V DC (input - COM) / \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.

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.
Rated output current: 0.1 A per point, 1.6 A per common
Residual voltage: ≤ 1.2 V
Leakage current: ≤ 0.1 mA
ON delay: ≤ 0.2 msec.
OFF delay: ≤ 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 (@ 24 V DC): ≤ 50 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: 160 g (0.35 lb)

PERFORMANCE

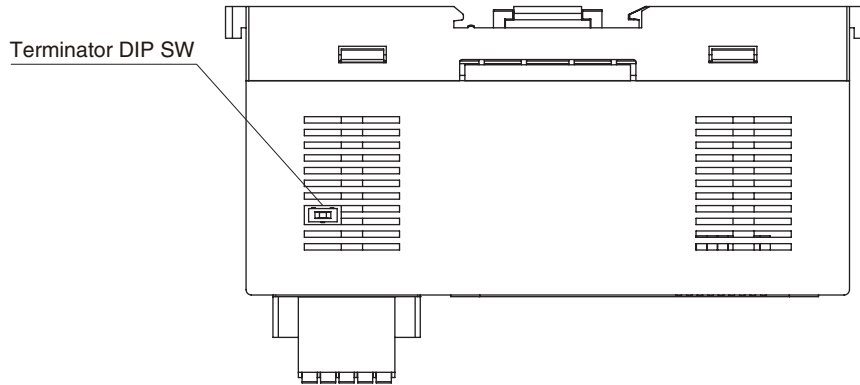
Insulation resistance: ≥ 100 M Ω with 500 V DC
Dielectric strength: 1500 V AC @ 1 minute
(I/O or exc. supply to CC-Link to power supply to FE1)

STANDARDS & APPROVALS

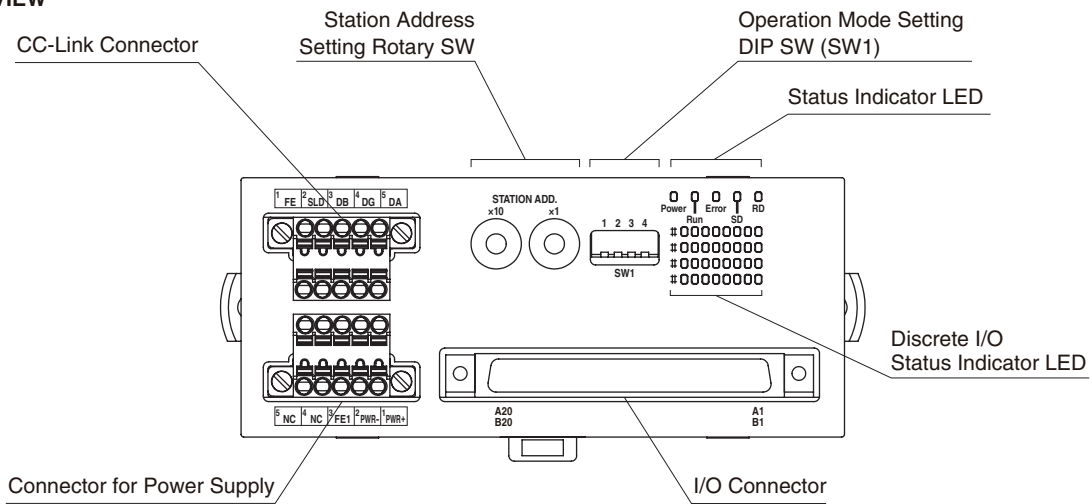
EU conformity:
EMC Directive
EMI EN 61000-6-4
EMS EN 61000-6-2
RoHS Directive

EXTERNAL VIEW

■ TOP VIEW

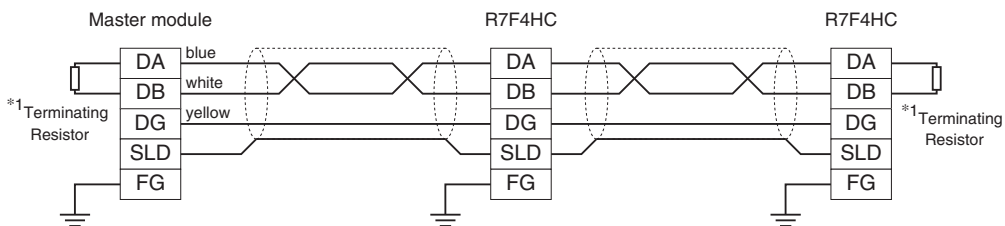


■ FRONT VIEW



CONNECTION DIAGRAMS

■ MASTER CONNECTION



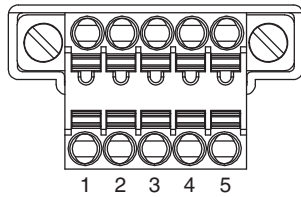
*1. Turn on the terminator DIP switch to activate the internal terminating resistor.

TERMINAL ASSIGNMENTS

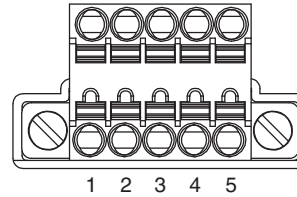
■CC-Link, POWER SUPPLY ASSIGNMENT

Unit side connector: MC1,5/5-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
 AI0,25-10YE 0.25mm² (Phoenix Contact)
 A0,34-10TQ 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



· POWER SUPPLY



NO.	ID	FUNCTION
1	FE	Functional earth
2	SLD	Shield
3	DB	DB (white)
4	DG	DG (yellow)
5	DA	DA (blue)

NO.	ID	FUNCTION
1	PWR+	Power supply +
2	PWR-	Power supply -
3	FE1	Grounding
4	NC	Unused
5	NC	Unused

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.

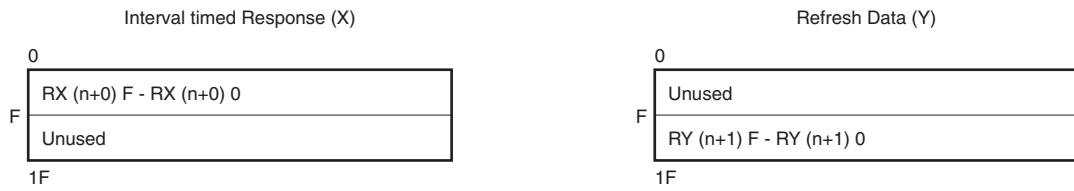
■ I/O, SENSOR EXC. ASSIGNMENT

Unit side connector: N365P040AU (OTAX) (FCN-365P040-AU (Fujitsu)...discontinued)
 Cable side connector: N36(J040AU(OTAX) (FCN-36(J040-AU (Fujitsu)...discontinued)
 (The cable connector is not included in the package. Specify wire size instead of ()); refer to the specifications of the product)



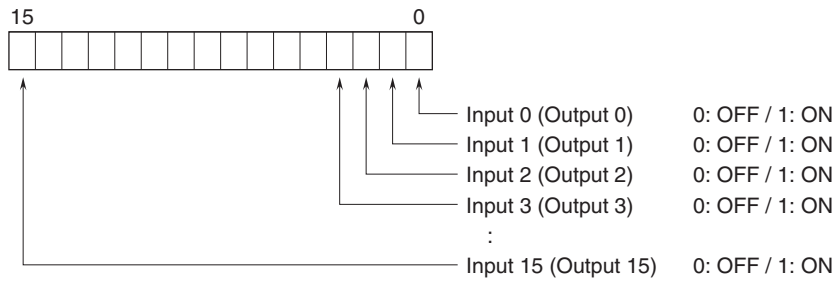
PIN NO.	ID	FUNCTION	PIN NO.	ID	FUNCTION
A1	VS+	Exc. supply +	B1	VS+	Exc. supply +
A2	VS-	Exc. supply -	B2	VS-	Exc. supply -
A3	YF	Output 15	B3	Y7	Output 7
A4	YE	Output 14	B4	Y6	Output 6
A5	YD	Output 13	B5	Y5	Output 5
A6	YC	Output 12	B6	Y4	Output 4
A7	YB	Output 11	B7	Y3	Output 3
A8	YA	Output 10	B8	Y2	Output 2
A9	Y9	Output 9	B9	Y1	Output 1
A10	Y8	Output 8	B10	Y0	Output 0
A11	NC	Unused	B11	NC	Unused
A12	COM	Common	B12	COM	Common
A13	XF	Input 15	B13	X7	Input 7
A14	XE	Input 14	B14	X6	Input 6
A15	XD	Input 13	B15	X5	Input 5
A16	XC	Input 12	B16	X4	Input 4
A17	XB	Input 11	B17	X3	Input 3
A18	XA	Input 10	B18	X2	Input 2
A19	X9	Input 9	B19	X1	Input 1
A20	X8	Input 8	B20	X0	Input 0

DATA ALLOCATION

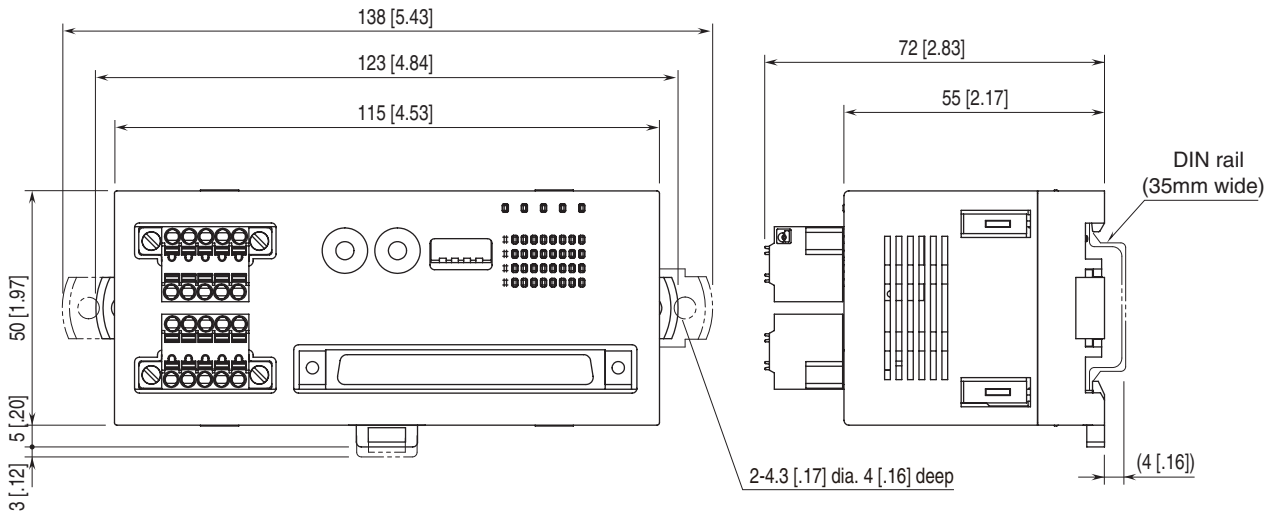


I/O DATA DESCRIPTIONS

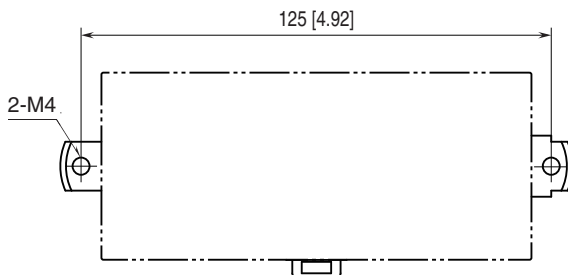
DISCRETE I/O



EXTERNAL DIMENSIONS unit: mm [inch]



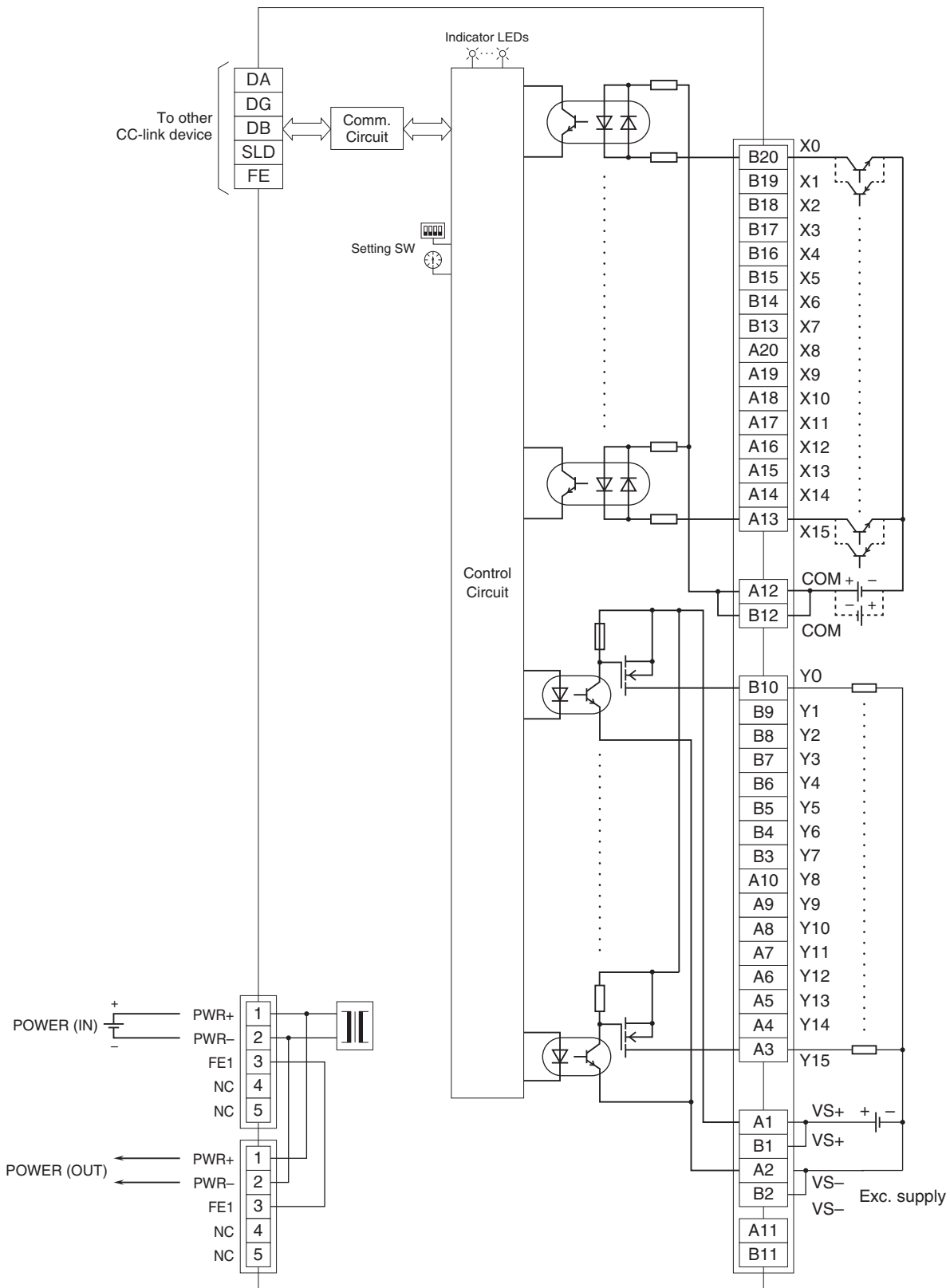
MOUNTING REQUIREMENTS unit: mm [inch]



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.