

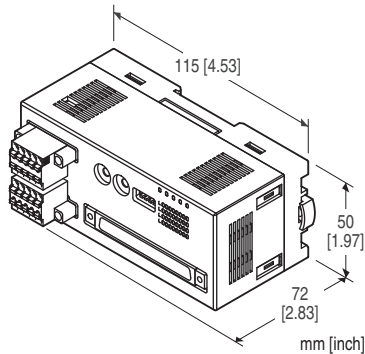
## Remote I/O R7F4H Series

### CC-Link I/O MODULE

(PNP transistor output, 32 points, FCN connector)

#### Functions & Features

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



### MODEL: R7F4HC-DC32B-K-R[1]

#### ORDERING INFORMATION

- Code number: R7F4HC-DC32B-K-R[1]  
Specify a code from below for [1].  
(e.g. R7F4HC-DC32B-R/Q)
- Specify the specification for option code /Q  
(e.g. /C01)

#### I/O TYPE

**DC32B:** PNP transistor output, 32 points

#### 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
- Output signal, exc supply:** FCN connector
- 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
- 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.

#### OUTPUT SPECIFICATIONS

- Common:** Positive common (PNP) per 32 points
- Number of output:** 32 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, 3.2 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 (@ 24 V DC):  $\leq 60$  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:**  $\geq 100$  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

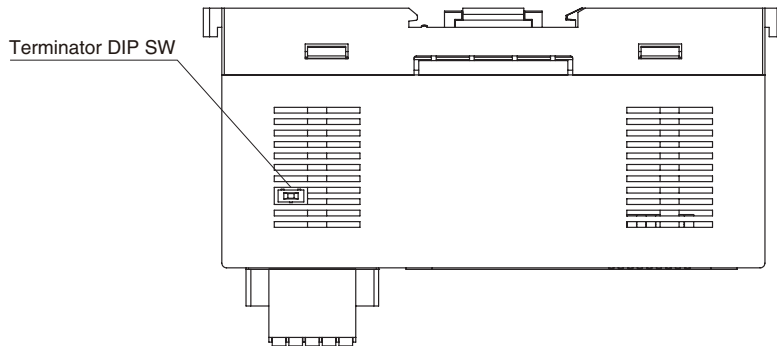
EMI EN 61000-6-4

EMS EN 61000-6-2

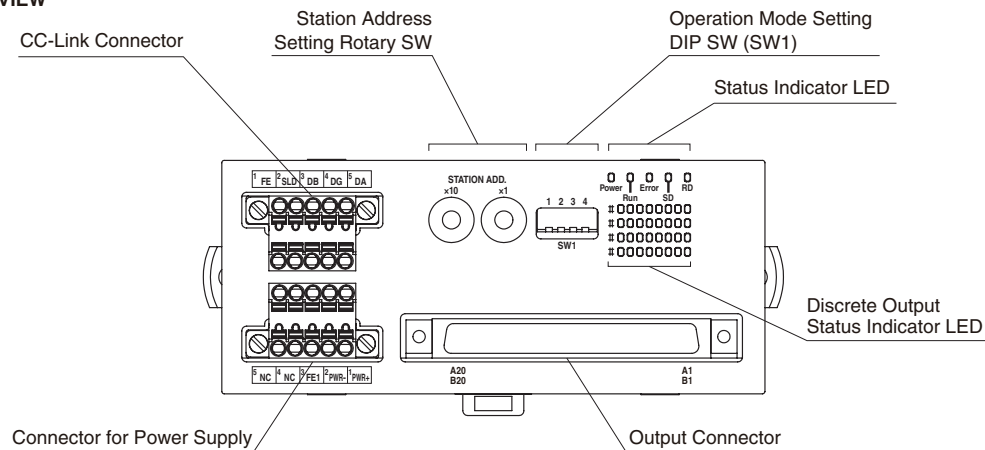
RoHS Directive

## EXTERNAL VIEW

### ■ TOP VIEW

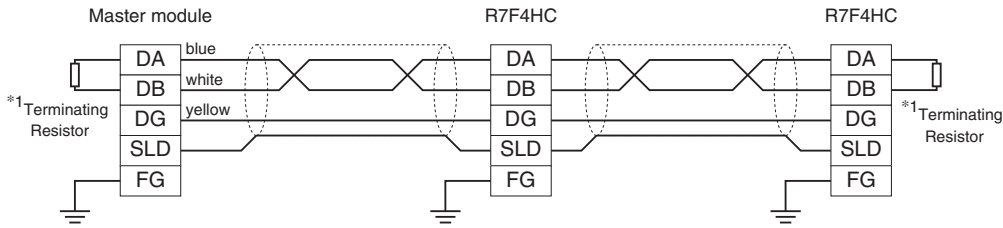


### ■ FRONT VIEW



## 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 - 1.5mm<sup>2</sup>, stripped length 10mm

A10,25-10YE 0.25mm<sup>2</sup> (Phoenix Contact)

A0,34-10TQ 0.34mm<sup>2</sup> (Phoenix Contact)

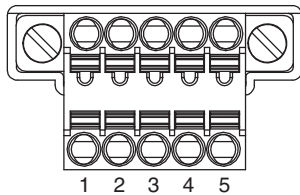
A10,5-10WH 0.5mm<sup>2</sup> (Phoenix Contact)

A10,75-10GY 0.75mm<sup>2</sup> (Phoenix Contact)

AI1-10 1.0mm<sup>2</sup> (Phoenix Contact)

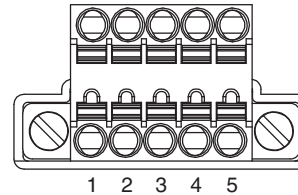
AI1,5-10 1.5mm<sup>2</sup> (Phoenix Contact)

#### · CC-Link



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

#### · POWER SUPPLY



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.

## ■ OUTPUT, 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)



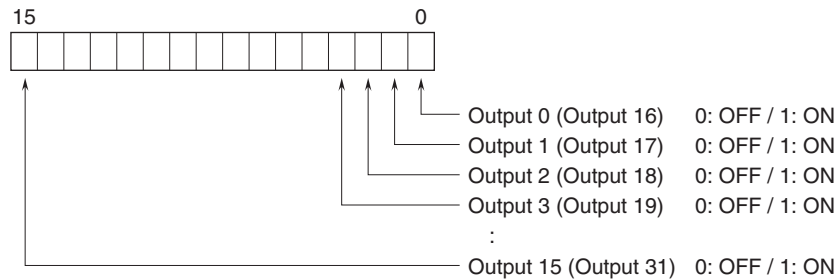
PIN NO.	ID	FUNCTION	PIN NO.	ID	FUNCTION
A1	VS-	Exc. supply -	B1	VS+	Exc. supply +
A2	VS-	Exc. supply -	B2	VS+	Exc. supply +
A3	NC	Unused	B3	NC	Unused
A4	NC	Unused	B4	NC	Unused
A5	Y1F	Output 31	B5	YF	Output 15
A6	Y1E	Output 30	B6	YE	Output 14
A7	Y1D	Output 29	B7	YD	Output 13
A8	Y1C	Output 28	B8	YC	Output 12
A9	Y1B	Output 27	B9	YB	Output 11
A10	Y1A	Output 26	B10	YA	Output 10
A11	Y19	Output 25	B11	Y9	Output 9
A12	Y18	Output 24	B12	Y8	Output 8
A13	Y17	Output 23	B13	Y7	Output 7
A14	Y16	Output 22	B14	Y6	Output 6
A15	Y15	Output 21	B15	Y5	Output 5
A16	Y14	Output 20	B16	Y4	Output 4
A17	Y13	Output 19	B17	Y3	Output 3
A18	Y12	Output 18	B18	Y2	Output 2
A19	Y11	Output 17	B19	Y1	Output 1
A20	Y10	Output 16	B20	Y0	Output 0

## DATA ALLOCATION

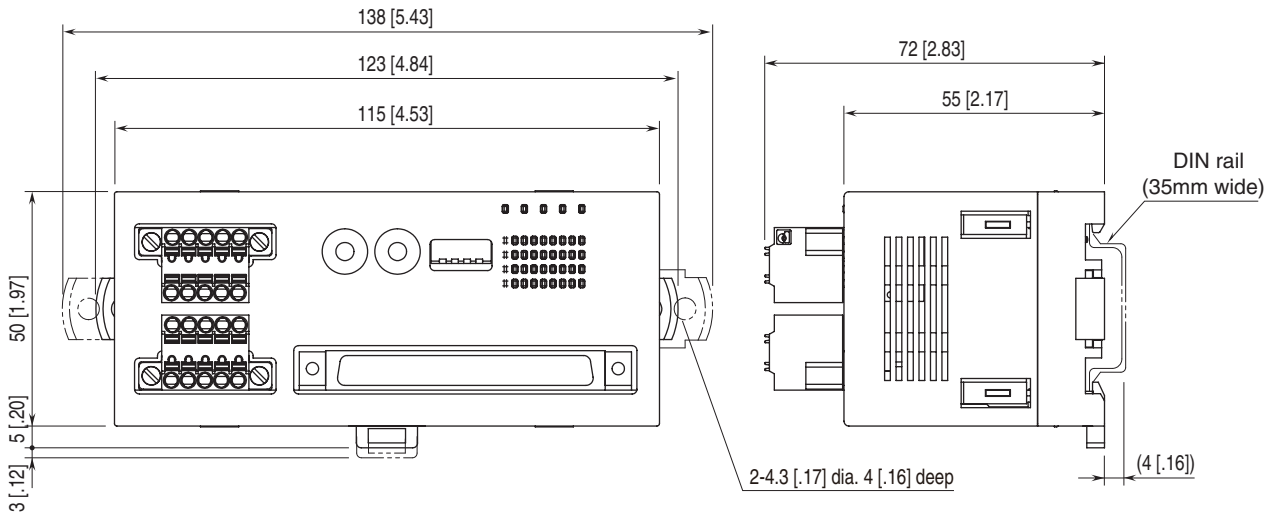


## I/O DATA DESCRIPTIONS

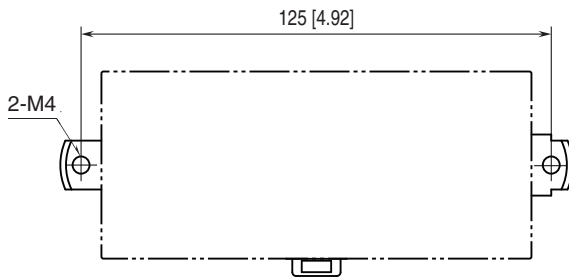
### ■ DISCRETE OUTPUT



## EXTERNAL DIMENSIONS unit: mm [inch]



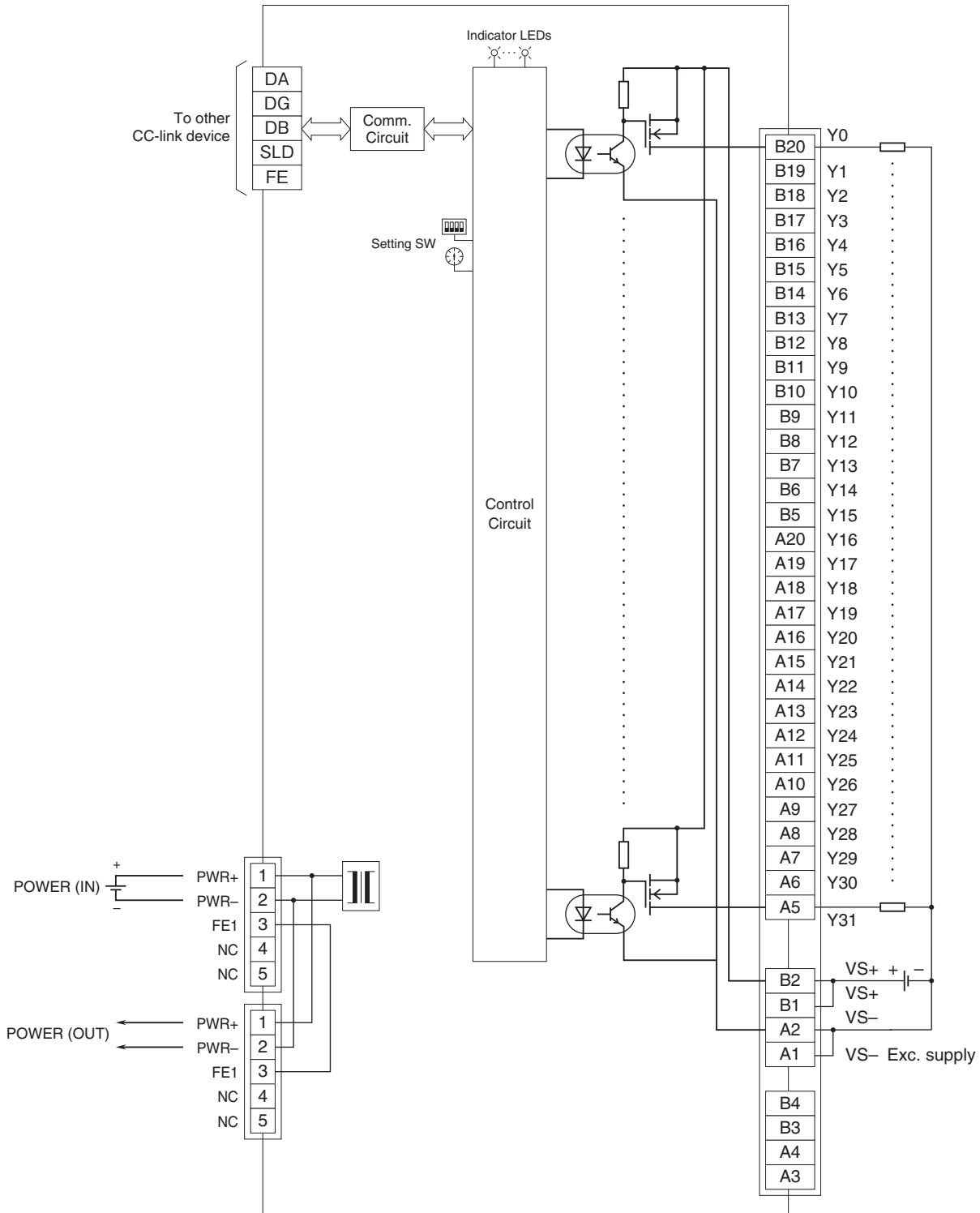
## MOUNTING REQUIREMENTS unit: mm [inch]



## 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.