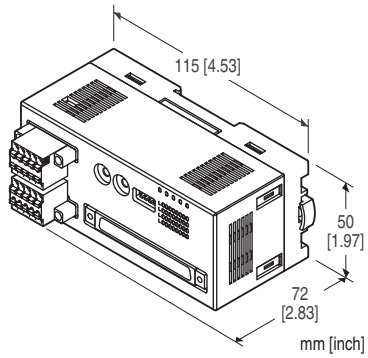
Remote I/O R7F4H Series

CC-Link I/O MODULE

(NPN 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-DC32A-K-R[1]

ORDERING INFORMATION

• Code number: R7F4HC-DC32A-K-R[1]

Specify a code from below for [1].
(e.g. R7F4HC-DC32A-R/Q)

• Specify the specification for option code /Q
(e.g. /C01)

I/O TYPE

DC32A: NPN transistor output, 32 points

TERMINAL BLOCK

K: Tension clamp terminal block for power supply
Tension clamp terminal block for power supply for communicaion
FCN connector for I/O

POWER INPUT

DC Power
R: 24 V DC
(Operational voltage range 24 V ±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: Tention clamp terminal block
Power supply: Tention clamp terminal block
Output signal, exc supply: FCN connector
Housing material: Flame-resistant resin (gray)
Isolation: Output or eac. 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: Negative common (NPN) 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 ±10 %, ripple 5 %p-p max.
Rated output current: 0.1 A per point, 3.2 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.)

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INSTALLATION

Current consumption

•**DC (@ 24 V DC)**: ≤ 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: ≥ 100 MΩ with 500 V DC

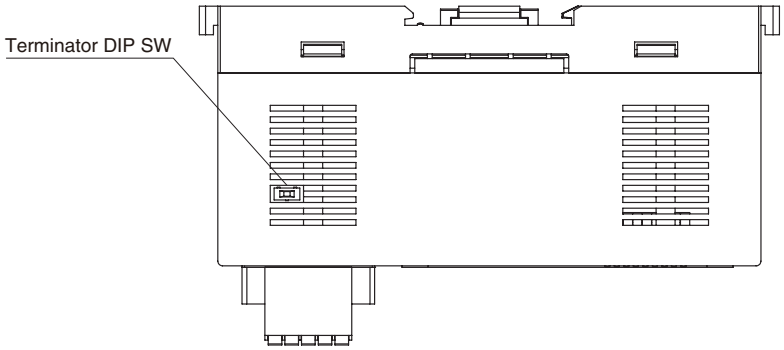
Dielectric strength: 1500 V AC @ 1 minute
(output or exc. supply to communication/power supply)

STANDARDS & APPROVALS

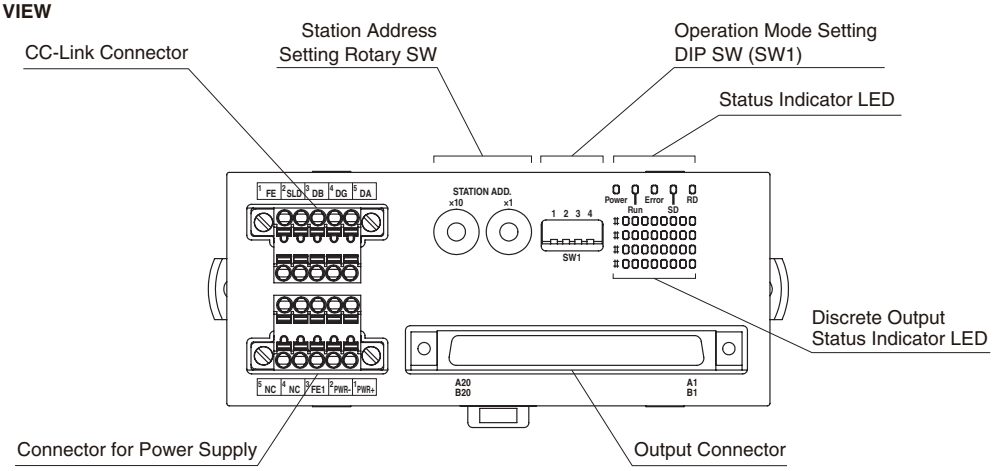
EU conformity:
EMC Directive
EMI EN 61000-6-4
EMS EN 61000-6-2
RoHS Directive

EXTERNAL VIEW

■ **TOP VIEW**



■ **FRONT VIEW**



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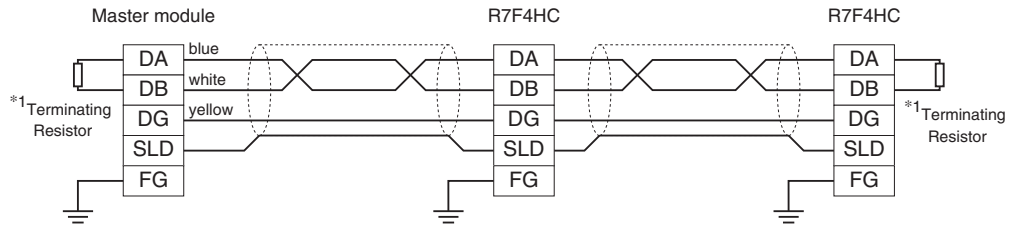
CONNECTION DIAGRAMS

■ MASTER CONNECTION



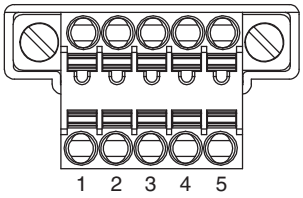
*1. Turn on the terminator DIP switch to activate the internal terminating resistor.

TERMINAL ASSIGNMENTS

■CC-Link, POWER SUPPLY ASSIGNEMENT

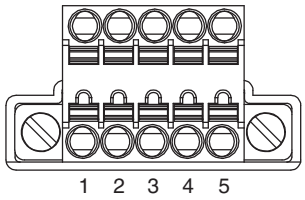
Unit side connector: MC1,5/5-GF-3,5 (Phoenix Contact)
Cable side connector: TFMC1,5/5-STF-3,5 (Phoenix Contact)
Aplicable wire size: 0.2 - 1.5mm^2, stripped length 10mm
AI0,25-10YE 0.25mm^2 (Phoenix Contact)
A0,34-10TQ 0.34mm^2 (Phoenix Contact)
AI0,5-10WH 0.5mm^2 (Phoenix Contact)
AI0,75-10GY 0.75mm^2 (Phoenix Contact)
AI1-10 1.0mm^2 (Phoenix Contact)
AI1,5-10 1.5mm^2 (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.

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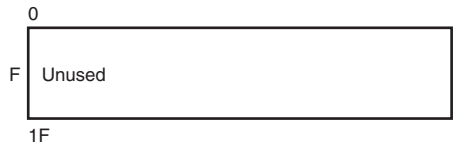
■ **OUTPUT, SENSOR EXC. ASSIGNMENT**

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)

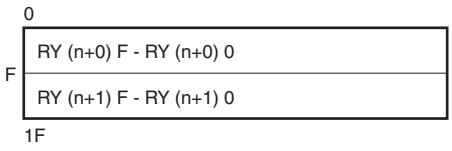
PIN NO.	ID	FUNCTION	PIN NO.	ID	FUNCTION
A1	VS-	Exc. supply -	B1	VS+	Exc. supply +
A2	VS-	Exc. supply -	B2	VS+	Exc. supply +
A3	NC	Unused	B3	NC	Unused
A4	NC	Unused	B4	NC	Unused
A5	Y31	Output 31	B5	Y15	Output 15
A6	Y30	Output 30	B6	Y14	Output 14
A7	Y29	Output 29	B7	Y13	Output 13
A8	Y28	Output 28	B8	Y12	Output 12
A9	Y27	Output 27	B9	Y11	Output 11
A10	Y26	Output 26	B10	Y10	Output 10
A11	Y25	Output 25	B11	Y9	Output 9
A12	Y24	Output 24	B12	Y8	Output 8
A13	Y23	Output 23	B13	Y7	Output 7
A14	Y22	Output 22	B14	Y6	Output 6
A15	Y21	Output 21	B15	Y5	Output 5
A16	Y20	Output 20	B16	Y4	Output 4
A17	Y19	Output 19	B17	Y3	Output 3
A18	Y18	Output 18	B18	Y2	Output 2
A19	Y17	Output 17	B19	Y1	Output 1
A20	Y16	Output 16	B20	Y0	Output 0

DATA ALLOCATION

Interval timed Response (X)

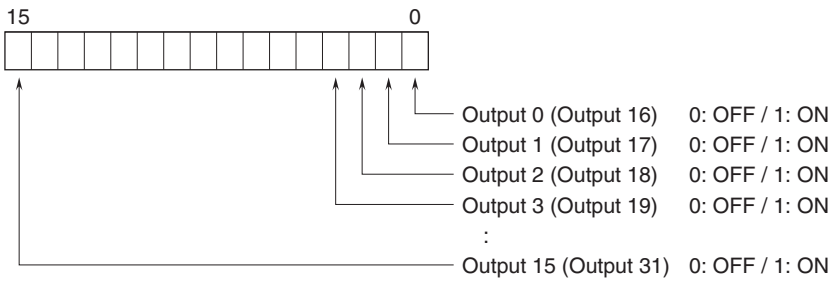


Refresh Data (Y)



I/O DATA DESCRIPTIONS

■ **DISCRETE OUTPUT**



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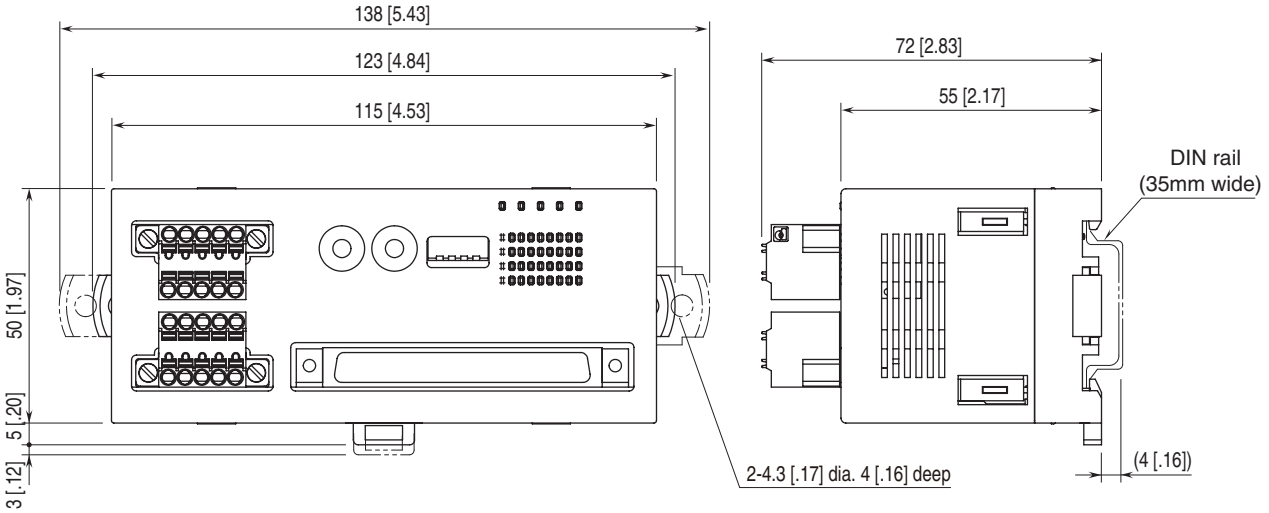
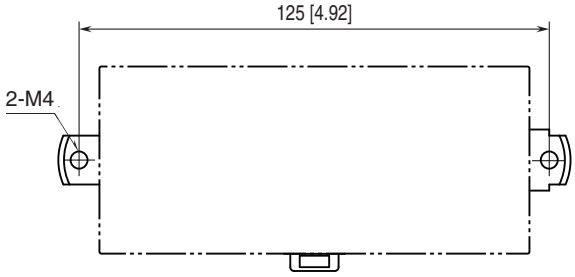
EXTERNAL DIMENSIONS unit: mm [inch]



MOUNTING REQUIREMENTS unit: mm [inch]



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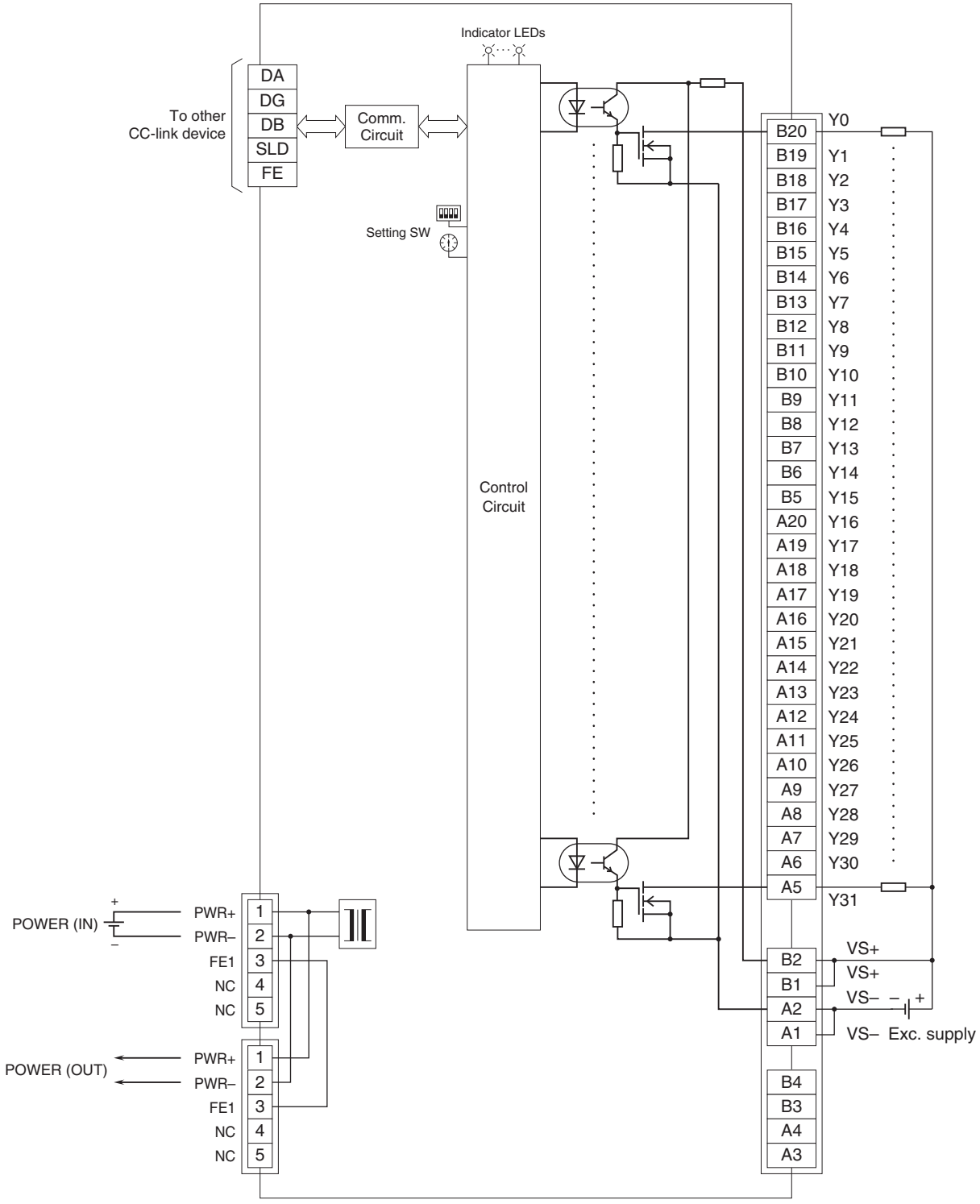
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

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.

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