

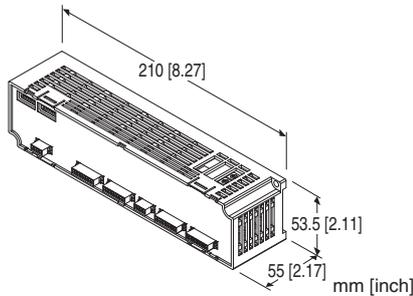
Remote I/O R7K4G Series

CC-Link I/O MODULE

(NPN/PNP discrete input, 32 points, tension clamp terminal)

Functions & Features

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



MODEL: R7K4GC-DA32-C-R

ORDERING INFORMATION

- Code number: R7K4GC-DA32-C-R

I/O TYPE

DA32: NPN/PNP discrete input, 32 points

TERMINAL BLOCK

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

POWER INPUT

DC Power

R: 24 V DC

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

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: Tension clamp terminal

Housing material: Flame-resistant resin (gray)

Isolation: Input 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: PWR, RUN, ERR, SD, RD

For details, refer to the users manual.

INPUT SPECIFICATIONS

Common: Positive or negative common (NPN/PNP) per 32 points

Number of inputs: 32

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 15 V DC (input to COM) / \geq 3.5 mA

OFF voltage / current: \leq 5 V DC (input to COM) / \leq 1 mA

Input current: \leq 5.5 mA per point (at 24 V DC)

Input resistance: Approx. 4.4 k Ω

ON delay: \leq 0.2 msec.

OFF delay: \leq 0.5 msec.

INSTALLATION

Current consumption

•DC at 24 V DC: \leq 50 mA

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 M Ω with 500 V DC

Dielectric strength: 1500 V AC @ 1 minute

(input to CC-Link to power supply to FE1)

STANDARDS & APPROVALS

EU conformity:

EMC Directive

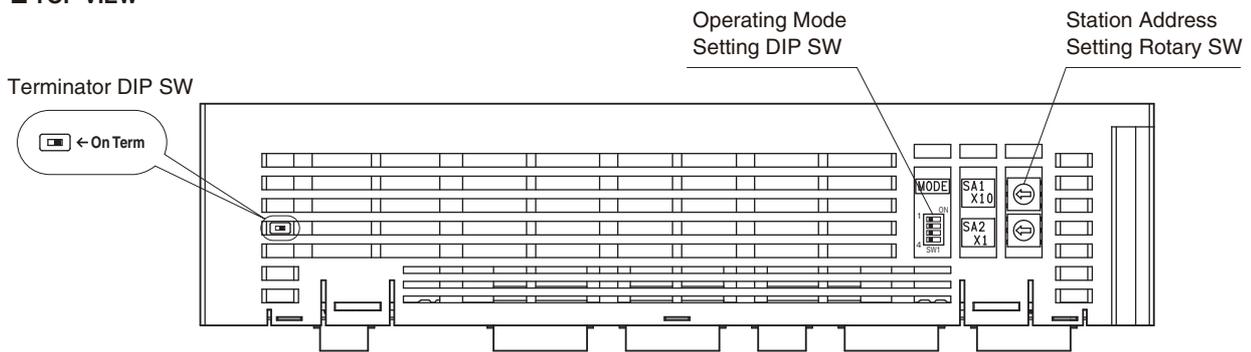
EMI EN 61000-6-4

EMS EN 61000-6-2

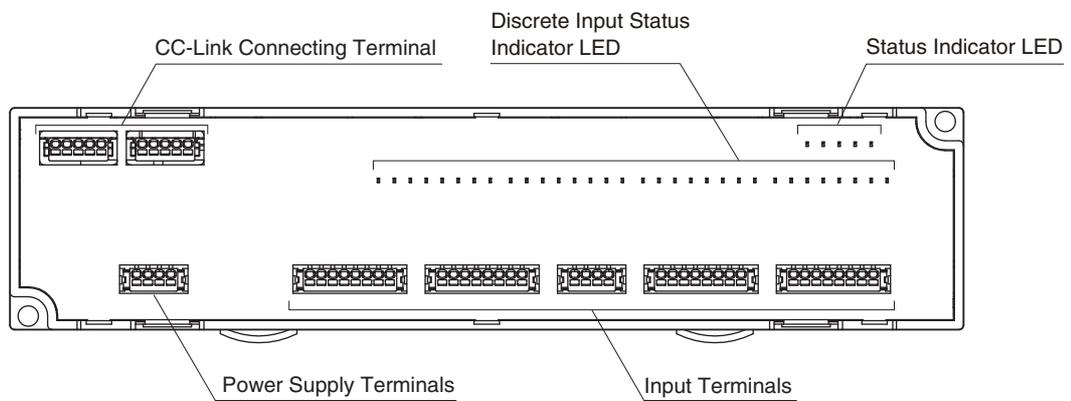
RoHS Directive

EXTERNAL VIEW

TOP VIEW

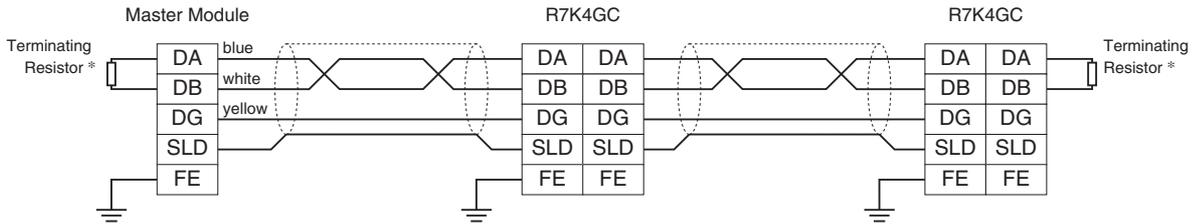


FRONT VIEW



CONNECTION DIAGRAMS

■ MASTER CONNECTION



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

TERMINAL ASSIGNMENTS

■ POWER SUPPLY TERMINAL ASSIGNMENT

Unit side connector: PTSM0,5/4-2,5-V SMD R44 (Phoenix Contact)

Applicable wire size: 0.25 - 0.34 mm²

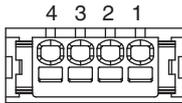
Stripped length: 6 mm

Recommended solderless terminal

AI0,25-6BU 0.25 mm² (Phoenix Contact)

AI0,25-6YE 0.25 mm² (Phoenix Contact)

AI0,34-6TQ 0.34 mm² (Phoenix Contact)



NO.	ID	FUNCTION
1	FE1	Grounding
2	-	Unused
3	24V	Power supply +
4	0V	Power supply -

■ CC-LINK TERMINAL ASSIGNMENT

Unit side connector: PTSM0,5/5-2,5-H SMD (Phoenix Contact)

Applicable wire size: 0.25 - 0.34 mm²

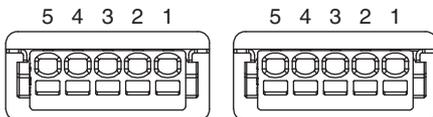
Stripped length: 6 mm

Recommended solderless terminal

AI0,25-6BU 0.25 mm² (Phoenix Contact)

AI0,25-6YE 0.25 mm² (Phoenix Contact)

AI0,34-6TQ 0.34 mm² (Phoenix Contact)



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

INPUT TERMINAL ASSIGNMENT

Unit side connector: PTSM0,5/8-2,5-V SMD R44 (Phoenix Contact)

Applicable wire size: 0.25 - 0.34mm²

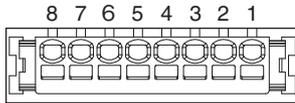
Stripped length: 6mm

Recommended solderless terminal

AI0,25-6BU 0.25mm² (Phoenix Contact)

AI0,25-6YE 0.25mm² (Phoenix Contact)

AI0,34-6TQ 0.34mm² (Phoenix Contact)



NO.	ID	FUNCTION	NO.	ID	FUNCTION	NO.	ID	FUNCTION	NO.	ID	FUNCTION
1	X7	Input 7	1	X15	Input 15	1	X23	Input 23	1	X31	Input 31
2	X6	Input 6	2	X14	Input 14	2	X22	Input 22	2	X30	Input 30
3	X5	Input 5	3	X13	Input 13	3	X21	Input 21	3	X29	Input 29
4	X4	Input 4	4	X12	Input 12	4	X20	Input 20	4	X28	Input 28
5	X3	Input 3	5	X11	Input 11	5	X19	Input 19	5	X27	Input 27
6	X2	Input 2	6	X10	Input 10	6	X18	Input 18	6	X26	Input 26
7	X1	Input 1	7	X9	Input 9	7	X17	Input 17	7	X25	Input 25
8	X0	Input 0	8	X8	Input 8	8	X16	Input 16	8	X24	Input 24

Unit side connector: PTSM0,5/4-2,5-V SMD R44 (Phoenix Contact)

Applicable wire size: 0.25 - 0.34 mm²

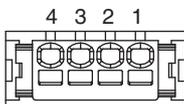
Stripped length: 6 mm

Recommended solderless terminal

AI0,25-6BU 0.25 mm² (Phoenix Contact)

AI0,25-6YE 0.25 mm² (Phoenix Contact)

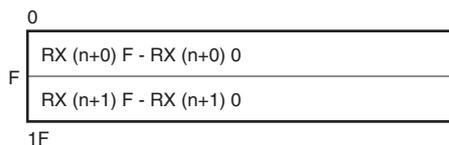
AI0,34-6TQ 0.34 mm² (Phoenix Contact)



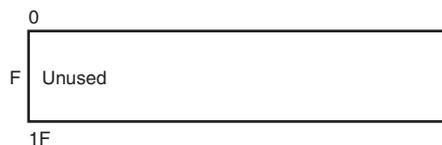
NO.	ID	FUNCTION
1	COM	Common
2	COM	Common
3	COM	Common
4	COM	Common

DATA ALLOCATION

Interval timed Response (X)

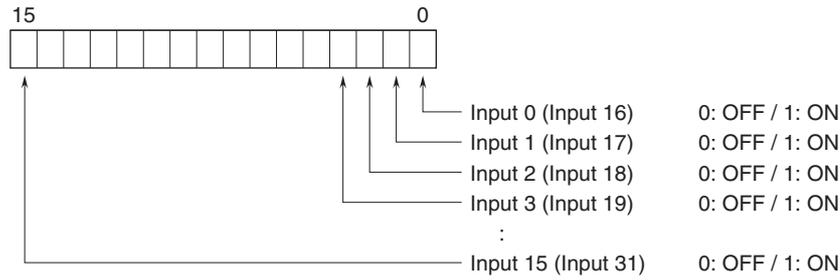


Refresh Data (Y)

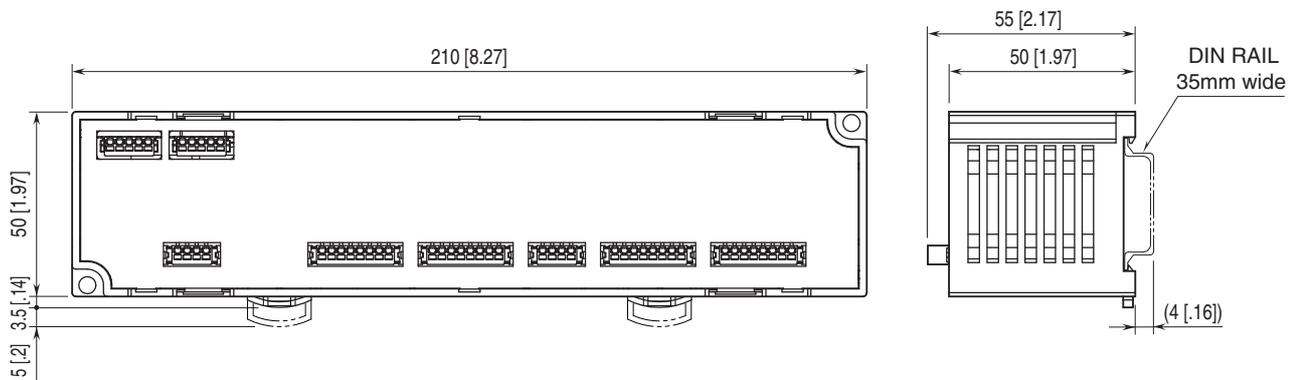


I/O DATA DESCRIPTIONS

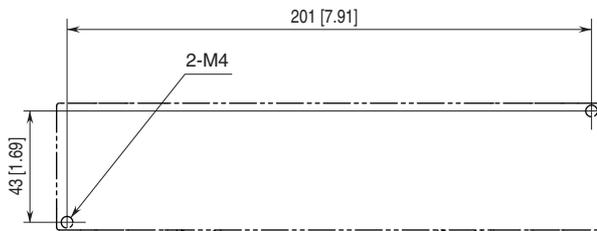
■ DISCRETE INPUT



EXTERNAL DIMENSIONS unit: mm [inch]



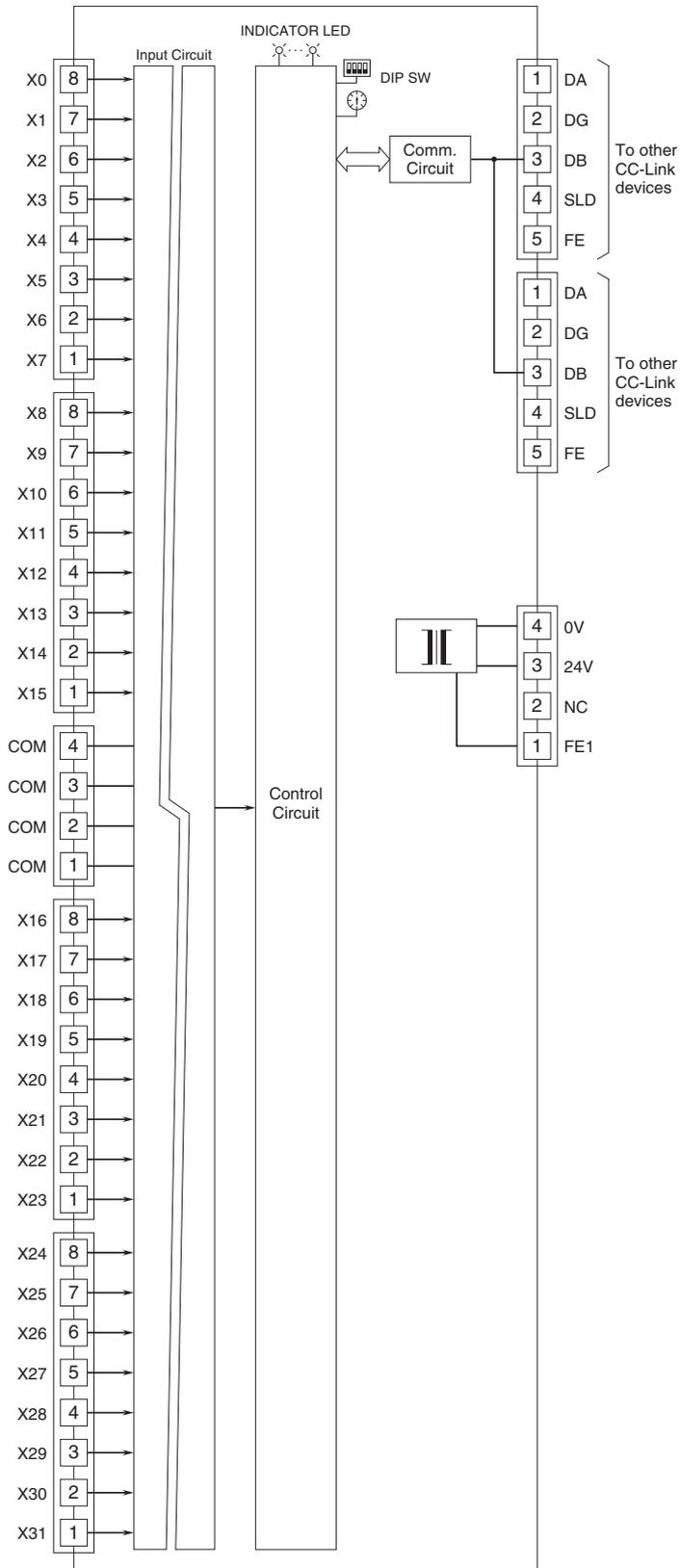
MOUNTING REQUIREMENTS unit: mm [inch]



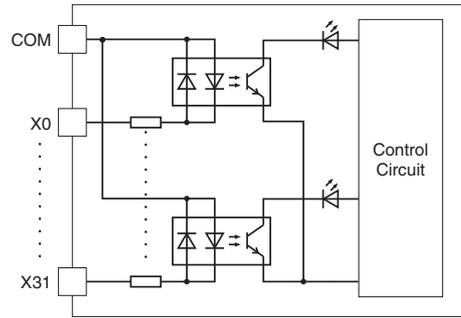
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

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

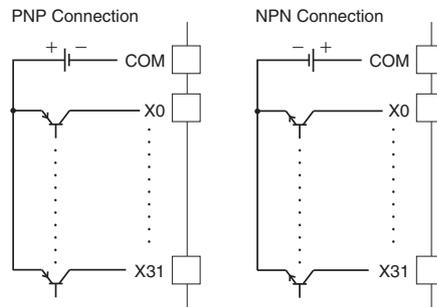
Caution: FE1 terminal is NOT a protective conductor terminal.



Input Circuit



Input Connection Examples





Specifications are subject to change without notice.