

Remote I/O R8 Series

POWER/NETWORK MODULE

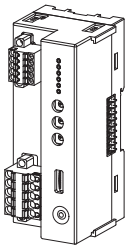
(CC-Link Ver.2.00; for 64-point analog signals)

Functions & Features

- Free combination of analog and discrete I/O
- Space-saving

Typical Applications

- Remote I/O for DCS and PLC



MODEL: R8-NC3-R[1]

ORDERING INFORMATION

- Code number: R8-NC3-R[1]

Specify a code from below for [1].

- (e.g. R8-NC3-R/Q)
- Specify the specification for option code /Q (e.g. /C01)

I/O TYPE

NC3: CC-Link

POWER INPUT

DC power

R: 24 V DC

(Operational voltage range: $\pm 10\%$; 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

RELATED PRODUCTS

- PC Configurator cable (model: COP-US)
 - PC configurator software (model: R8CFG)
- Downloadable at M-System's web site.

PACKAGE INCLUDES...

- Protective cover

GENERAL SPECIFICATIONS

Connection

- **Power input:** Tension clamp (Front Twin connection)
Applicable wire size: 0.2 - 2.5 mm²
Stripped length: 10 mm
- **CC-Link:** Tension clamp (Front Twin connection)
Applicable wire size: 0.2 - 1.5 mm²
Stripped length: 10 mm
- **Internal bus or internal power or excitation supply:** Via connector

Max. number of I/O modules: 16

(Max. consumption current of I/O modules: 1.6 A)

Isolation: CC-Link to internal bus or internal power or power input to exc. supply to FE1

Status indicators: Power, Run, Error, SD, RD

Data allocation: Mode 1, 2

CC-Link COMMUNICATION

Protocol: CC-Link. Conforms to Version 2.00

Device type: Remote device station

Required nodes: 4 (112 I/O points, 16 words) × m (m = Cyclic expansion setting)

Network cable: CC-Link cable designated by Mitsubishi Electric

Cyclic expansion: 2, 4 (Function selected with DIP SW)

Station address setting: Rotary switch; 1 to 64

Baud rate setting: Rotary switch

156kbps, 625kbps, 2.5Mbps, 5Mbps, 10Mbps

Terminating resistor: Built-in (DIP Switch, default: disable)

INSTALLATION

Power consumption

- **DC:** Approx. 12 W 24 V DC (@ internal power max. current 1.6 A)

Internal power supply (power supply for I/O module):

- DC power supply: 5 V DC
- Current capacity: 1.6 A

Excitation supply output (excitation for I/O module)

- **DC:** 24 V DC $\pm 10\%$
- **Operational current:** 10 A
 (From power supply (excitation supply) connector, via connector for internal bus, supplied to each I/O module.)

Power output current consumption must be under operational current.)

Operating temperature: 0 to 55°C (32 to 131°F)

Operating humidity: 30 to 90 %RH (non-condensing)

Atmosphere: No corrosive gas or heavy dust

Mounting: DIN rail

Weight: 180 g (0.40 lb)

PERFORMANCE

Insulation resistance: $\geq 100 \text{ M}\Omega$ with 500 V DC

Dielectric strength: 500 V AC @ 1 minute

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

STANDARDS & APPROVALS

EU conformity:

EMC Directive

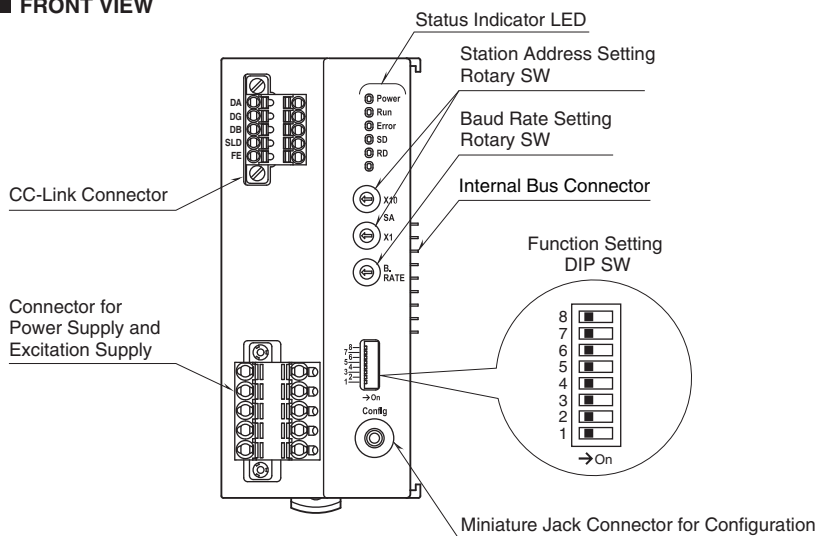
EMI EN 61000-6-4

EMS EN 61000-6-2

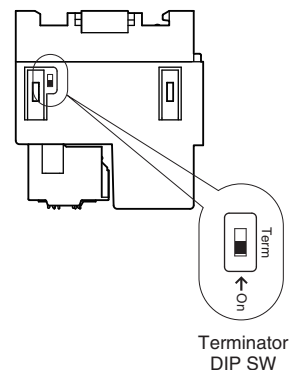
RoHS Directive

EXTERNAL VIEW

FRONT VIEW



TOP VIEW



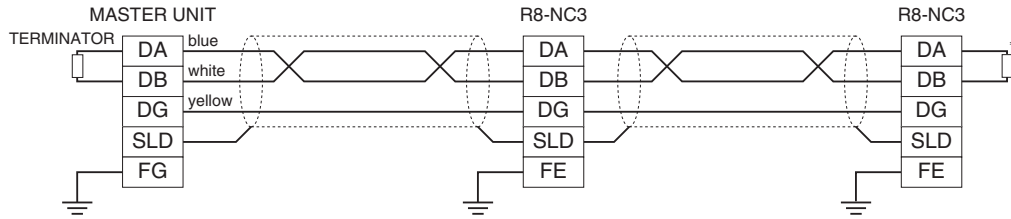
STATUS INDICATOR LED

ID	COLOR	FUNCTION
Power	Green	ON when the internal 5V power is in normal status.
Run	Green	ON with normal communication *1
Error	Red	ON when abnormal data is received.
SD	Green	ON with data transmitting
RD	Green	ON with data receiving

*1. Run LED turns off when no command is received from the master device.

CONNECTION DIAGRAMS

■ MASTER CONNECTION



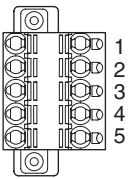
*1. Turn on the terminator DIP switch to activate the internal terminating resistor.

■ POWER SUPPLY, EXCITATION SUPPLY CONNECTOR TERMINAL ASSIGNMENT

Printed-circuit board connector (Phoenix Contact)

Unit side connector: MSTBV2,5/5-GF-5,08AU

Cable side connector: TFKC2,5/5-STF-5,08AU



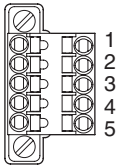
PIN No.	ID	FUNCTION
1	24V	Power supply 24V DC
2	0V	Power supply 0V DC
3	+	Excitation supply 24V DC
4	-	Excitation supply 0V DC
5	FE1	Grounding

■ NETWORK CONNECTOR ASSIGNMENT

Printed-circuit board connector (Phoenix Contact)

Unit side connector: MC1,5/5-GF-3,5

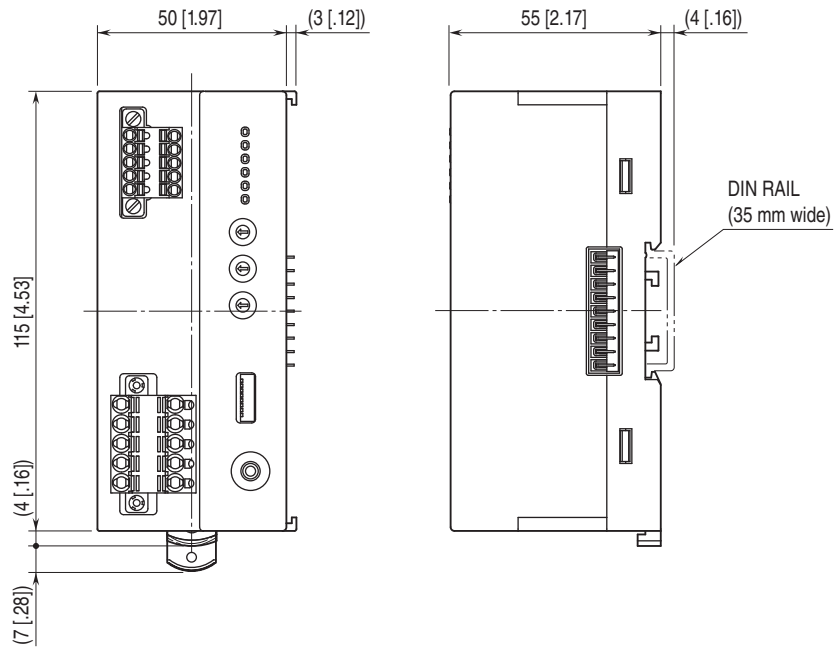
Cable side connector: TFM1,5/5-STF-3,5



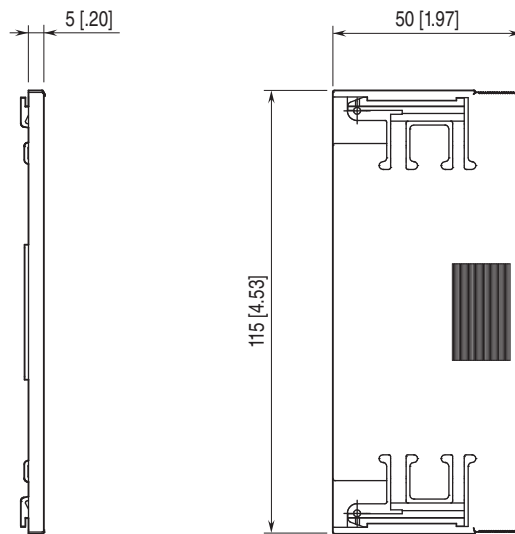
PIN No.	ID	FUNCTION
1	DA	DA
2	DG	DG
3	DB	DB
4	SLD	Shield
5	FE	Functional earth

EXTERNAL DIMENSIONS unit: mm [inch]

■UNIT



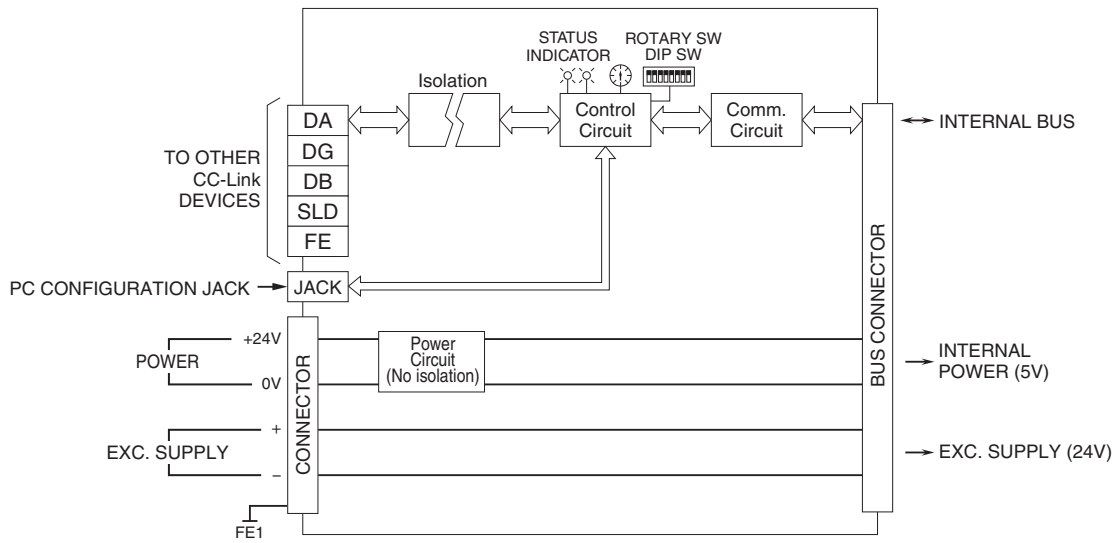
■PROTECTIVE COVER



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.