

Remote I/O R8 Series

POWER/NETWORK MODULE

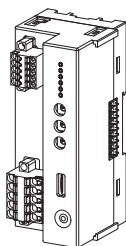
(CC-Link Ver.2.00; 1 - 4 configurable required nodes , for 64-point analog signals)

Functions & Features

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

Typical Applications

- Remote I/O for DCS and PLC



MODEL: R8-NC3A-R[1]

ORDERING INFORMATION

- Code number: R8-NC3A-R[1]
Specify a code from below for [1].
(e.g. R8-NC3A-R/Q)
- Specify the specification for option code /Q
(e.g. /C01)

I/O TYPE

NC3A: 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:** 1 - 4 selectable with DIP switch
(112 I/O points, 16 words) × m (m = Cyclic expansion setting)
- **Network cable:** CC-Link cable designated by Mitsubishi Electric
- **Cyclic expansion:** 1, 2, 4, 8 (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

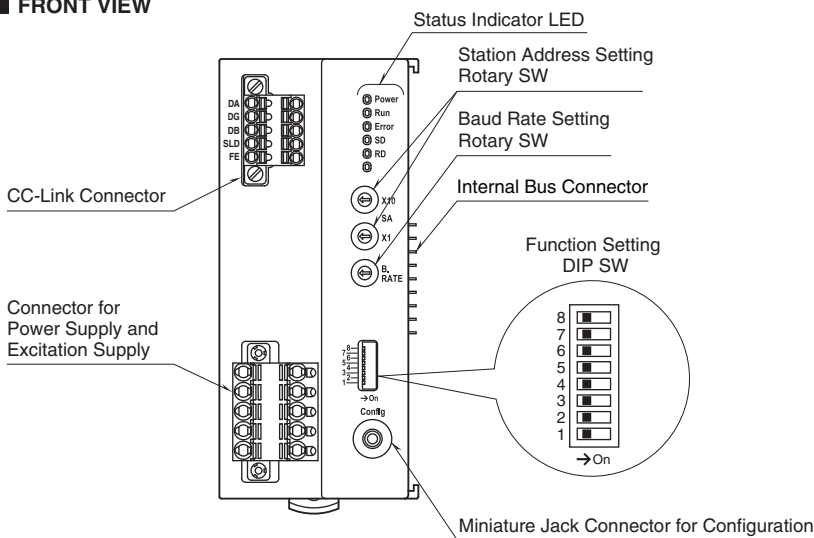
EMI EN 61000-6-4

EMS EN 61000-6-2

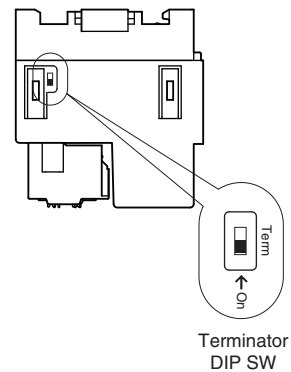
RoHS Directive

EXTERNAL VIEW

FRONT VIEW



TOP VIEW



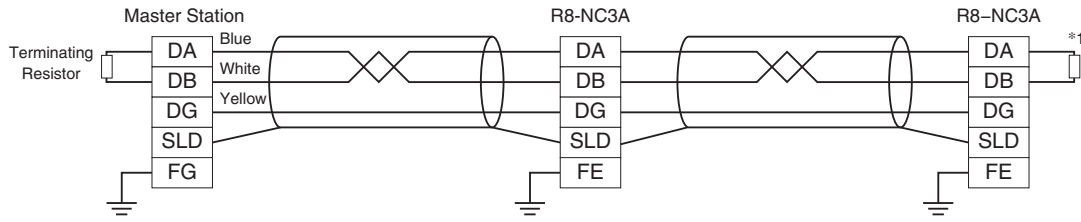
STATUS INDICATOR LED

ID	COLOR	STATUS	FUNCTION
Power	Green	ON	The internal 5V power is in normal status.
		Blinking with 1 Hz	Simulated output
		Blinking with 4 Hz	DIP switch setting error
Run	Green	ON	Normal communication*1
Error	Red	ON	Abnormal data is received.
SD	Green	ON	Data transmitting
RD	Red	ON	Data receiving

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

CONNECTION DIAGRAMS

■ MASTER CONNECTION



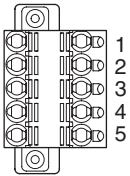
*1. Turn on the terminator DIP switch to activate the internal terminating resistor

■ 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



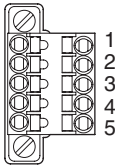
PIN No.	ID	FUNCTION
1	24V	Power supply 24V DC
2	0V	Power supply 0V DC
3	+	Excitation supply 24V DC
4	-	Excitation supply 0V DC
5	FE1	Grounding

■ NETWORK CONNECTOR ASSIGNMENT

Printed-circuit board connector (Phoenix Contact)

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

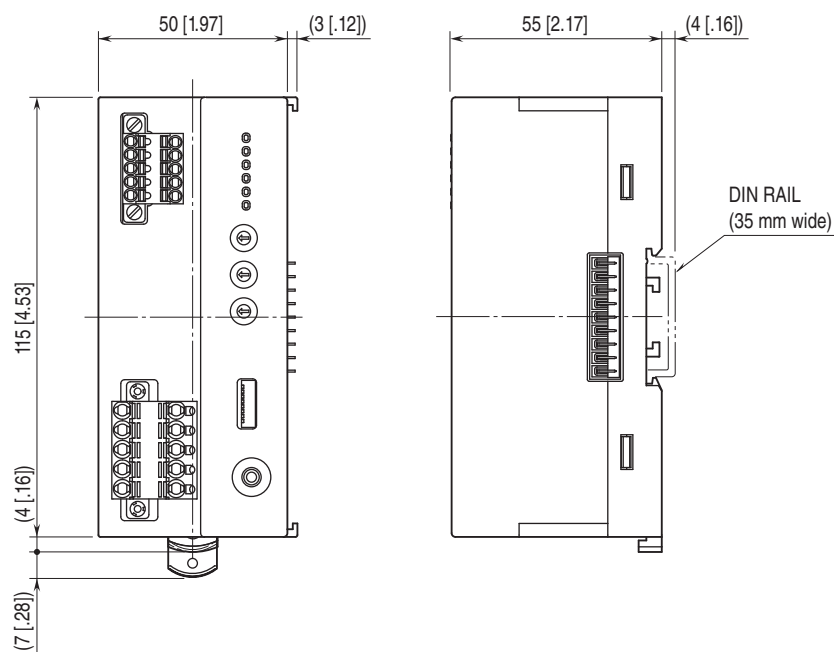
Cable side connector: TFM1,5/5-STF-3,5



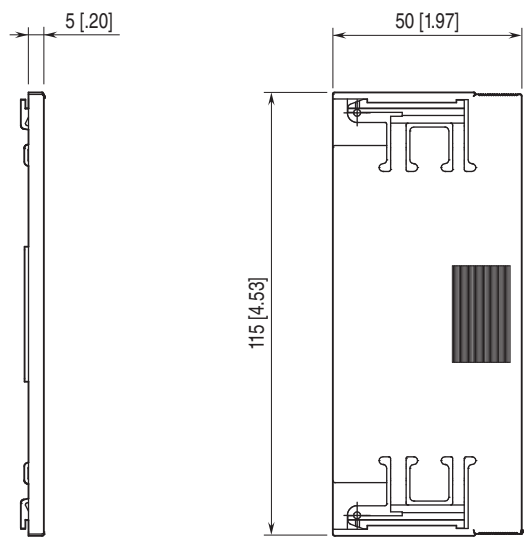
PIN No.	ID	FUNCTION
1	DA	DA
2	DG	DG
3	DB	DB
4	SLD	Shield
5	FE	Functional earth

EXTERNAL DIMENSIONS unit: mm [inch]

UNIT



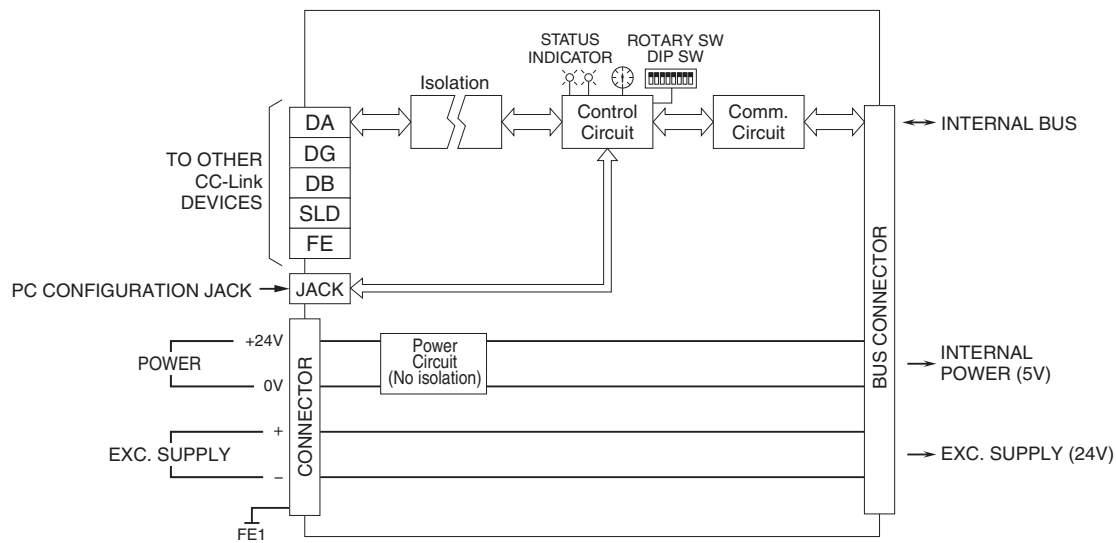
PROTECTIVE COVER



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.