

## Remote I/O R8 Series

### POWER/NETWORK MODULE

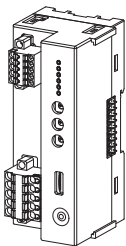
(CC-Link Ver.2.00; 1 - 4 configurable required nodes , for 64-point analog signals)

#### 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 mm<sup>2</sup>  
**Stripped length:** 10 mm
- **CC-Link:** Tension clamp (Front Twin connection)  
**Applicable wire size:** 0.2 - 1.5 mm<sup>2</sup>  
**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

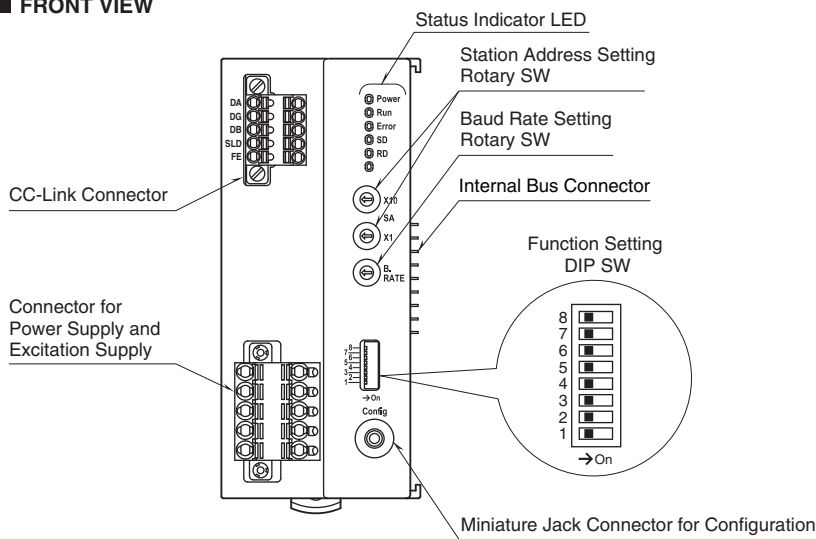
EMS EN 61000-6-2

RoHS Directive

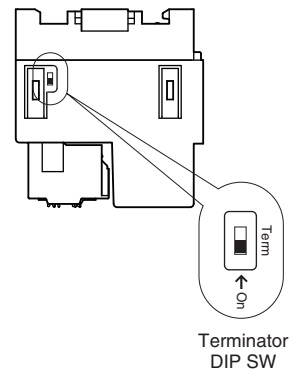
EN 50581

## EXTERNAL VIEW

### FRONT VIEW



### TOP VIEW



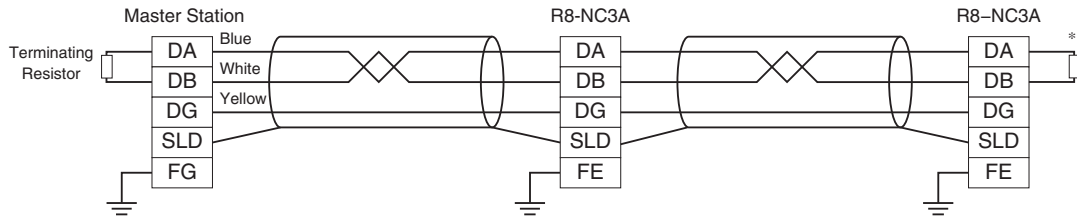
### STATUS INDICATOR LED

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 <sup>*1</sup>
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



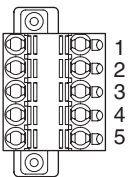
\*1. Turn on the terminator DIP switch to activate the internal terminating resistor

### ■ 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



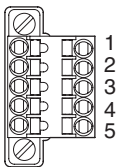
PIN No.	ID	FUNCTION
1	24V	Power supply 24V DC
2	0V	Power supply 0V DC
3	+	Excitation supply 24V DC
4	-	Excitation supply 0V DC
5	FE1	Grounding

### ■ NETWORK CONNECTOR ASSIGNMENT

Printed-circuit board connector (Phoenix Contact)

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

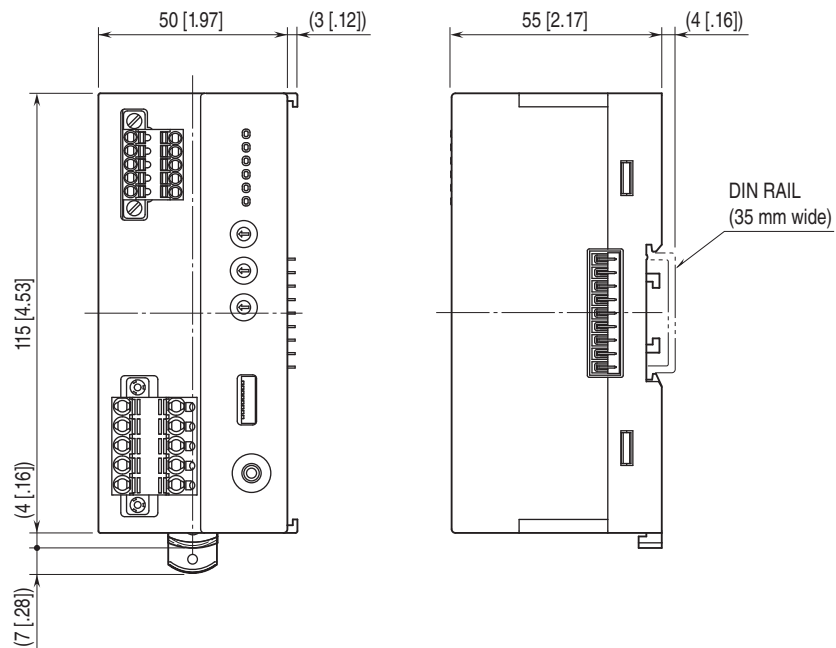
Cable side connector: TFMC1,5/5-STF-3,5



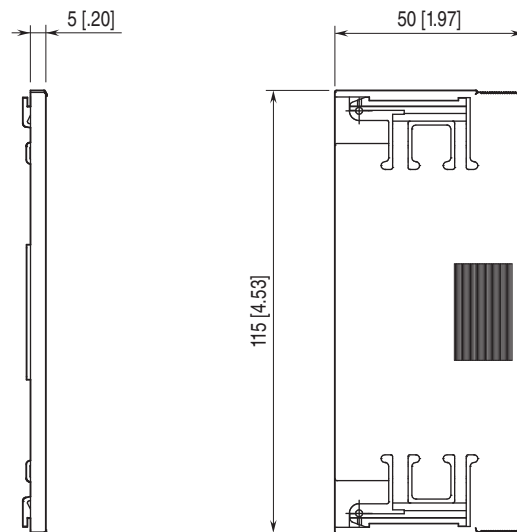
PIN No.	ID	FUNCTION
1	DA	DA
2	DG	DG
3	DB	DB
4	SLD	Shield
5	FE	Functional earth

## EXTERNAL DIMENSIONS unit: mm [inch]

### ■UNIT



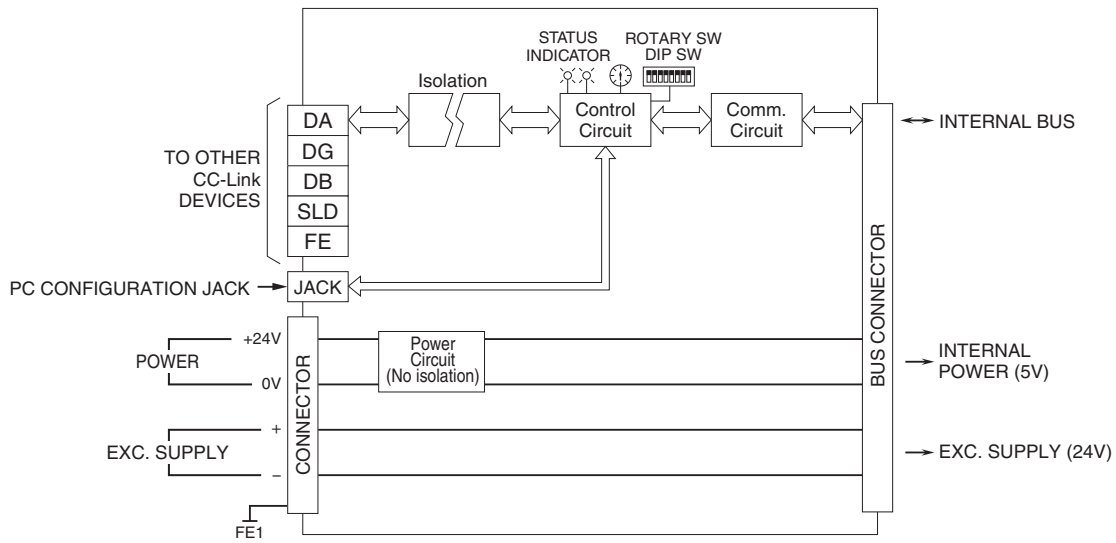
### ■PROTECTIVE COVER



## 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.