MODEL: R8-NC3A

Remote I/O R8 Series
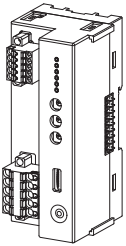
POWER/NETWORK MODULE
(CC-Link Ver.2.00; 1 - 4 configurable required nodes , for 64-point analog signals)

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: ±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

RELATED PRODUCTS
• PC Configurator cable (model: COP-US)
• PC configurator software (model: R8CFG)
Downloadable at our web site.

PACKAGE INCLUDES...
• Protective cover

GENERAL SPECIFICATIONS
Connection
• **Power input**: Tension clamp (Front Twin connection)
  Applicable wire size: 0.2 - 2.5 mm^2
  Stripped length: 10 mm
• **CC-Link**: Tension clamp (Front Twin connection)
  Applicable wire size: 0.2 - 1.5 mm^2
  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 ±10 %
•**Operational current**: 10 A
 (From power supply (exitation supply) connector, via

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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: ≥ 100 MΩ 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)

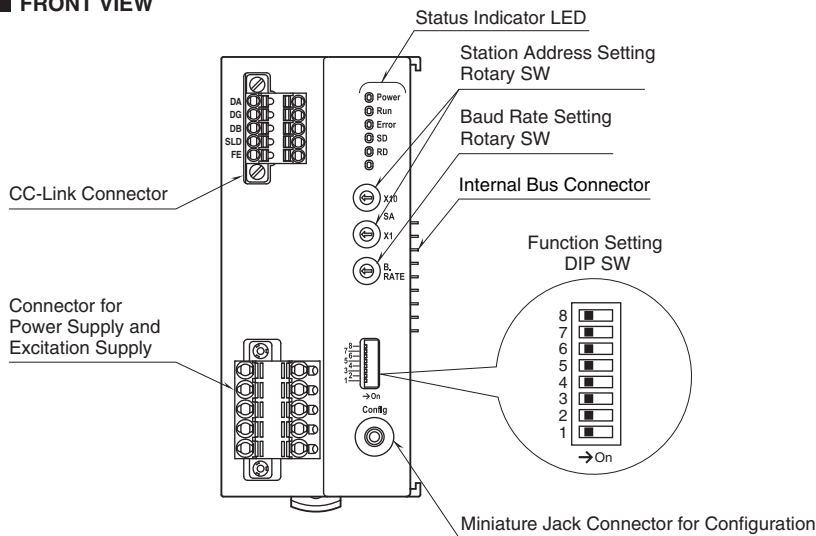## STANDARDS & APPROVALS

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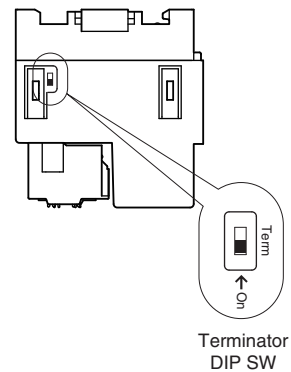EMC Directive
  EMI EN 61000-6-4
  EMS EN 61000-6-2
RoHS Directive

EXTERNAL VIEW

■ **FRONT VIEW**

■ **TOP VIEW**

Terminator DIP SW

■ **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.

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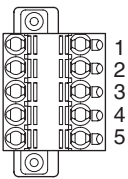
CONNECTION DIAGRAMS

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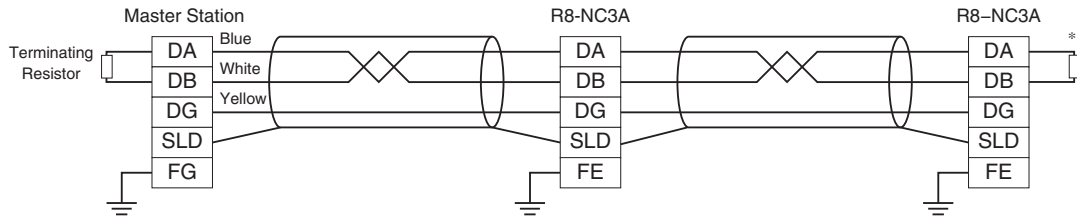
*1. Turn on the terminator DIP switch to activate the internal terminating resistor

■ POWER SUPPLY, EXCITATION SUPPLY CONNECTOR TERMINAL ASSIGNMENT

Printed-circuit board connector (Phoenix Contact)
Unit side connector: MSTBV2,5/5-GF-5,08AU
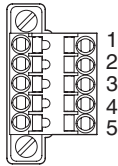Cable side connector: TFKC2,5/5-STF-5,08AU

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)
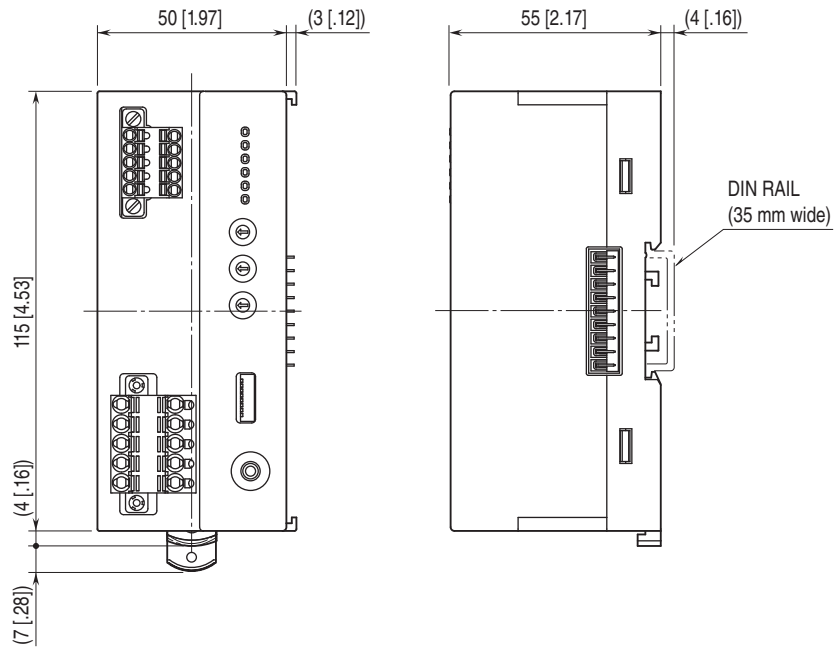Unit side connector: MC1,5/5-GF-3,5
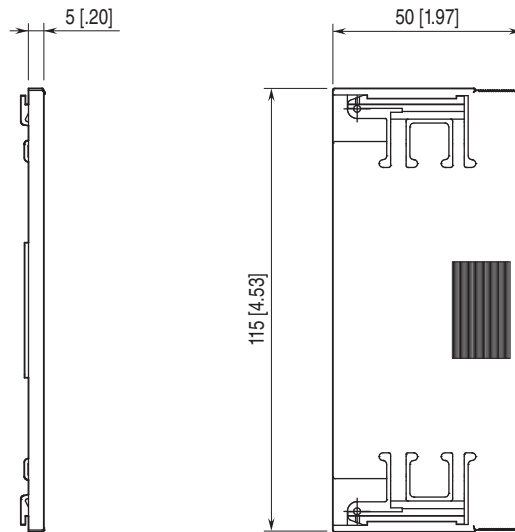Cable side connector: TFMC1,5/5-STF-3,5

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

50 [1.97] (3 [.12])   55 [2.17] (4 [.16])

115 [4.53]

DIN RAIL
(35 mm wide)

(4 [.16])

(7 [.28])

■PROTECTIVE COVER

5 [.20]   50 [1.97]

115 [4.53]

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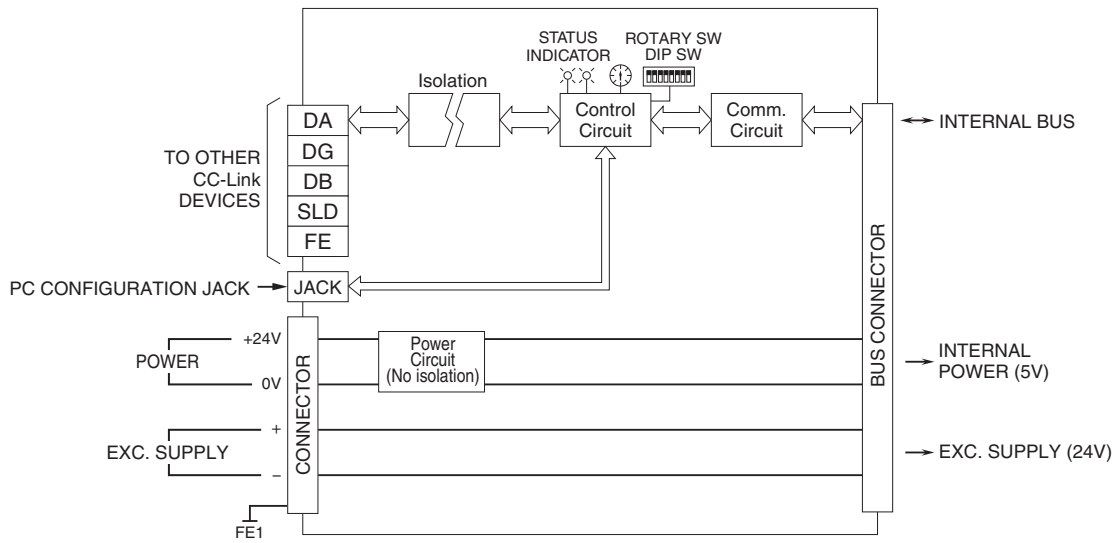
SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

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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