

Remote I/O R8 Series

POWER/NETWORK MODULE

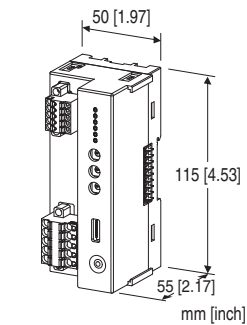
(CC-Link Ver.2.00; for 64-point analog signals)

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/UL/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 (multiple selections)

Standards & Approvals

blank: CE marking

/UL: UL approval, CE marking

Other Options

blank: none

/Q: Option other than the above (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: MCN-CON or 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 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:** ≤ 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

Approval:

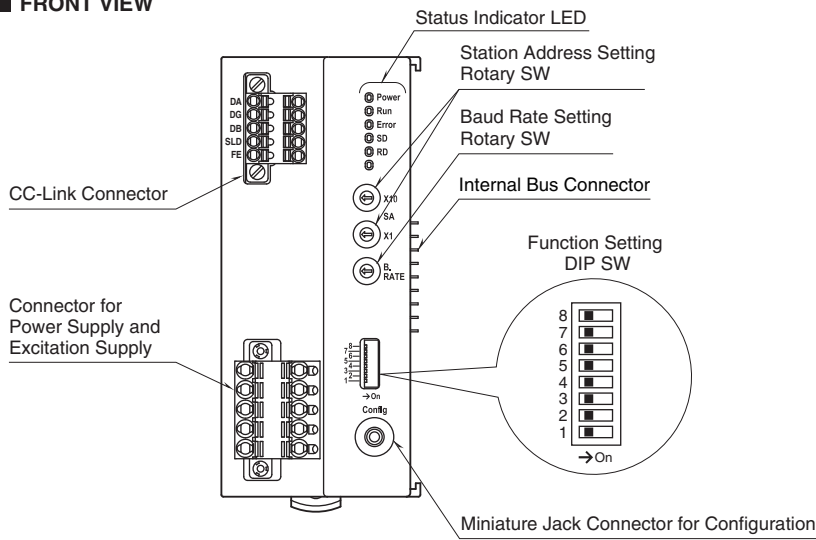
UL/C-UL general safety requirements

(UL 61010-1, CAN/CSA-C22.2 No.61010-1-12)

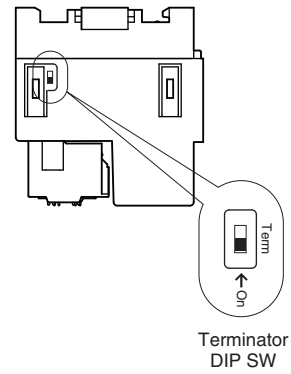
(UL 61010-2-201, CAN/CSA-C22.2 No.61010-2-201)

EXTERNAL VIEW

FRONT VIEW



TOP VIEW



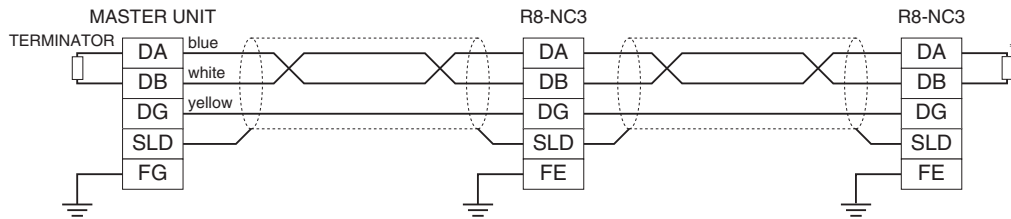
STATUS INDICATOR LED

| 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



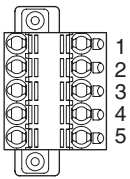
*1. Turn on the terminator DIP switch to activate the internal terminating resistor.

■ 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



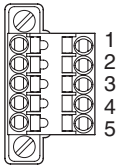
| PIN No. | ID | FUNCTION |
|---------|-----|--------------------------|
| 1 | 24V | Power supply 24V DC |
| 2 | 0V | Power supply 0V DC |
| 3 | + | Excitation supply 24V DC |
| 4 | - | Excitation supply 0V DC |
| 5 | FE1 | Grounding |

■ NETWORK CONNECTOR ASSIGNMENT

Printed-circuit board connector (Phoenix Contact)

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

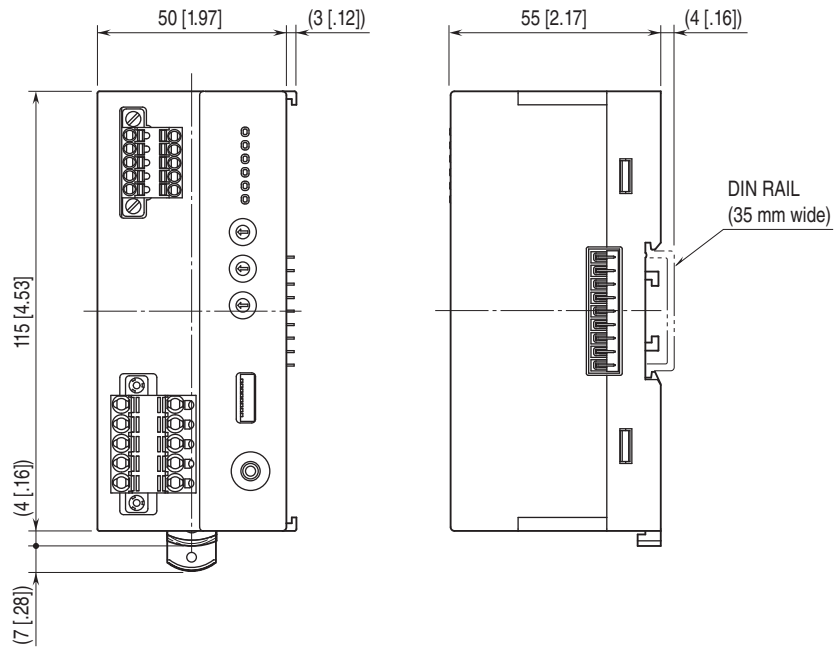
Cable side connector: TFMC1,5/5-STF-3,5



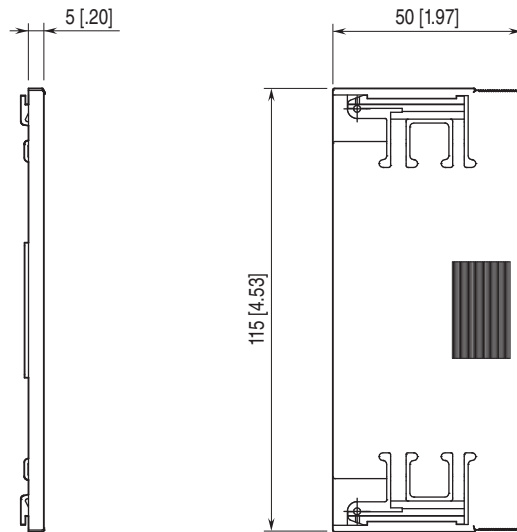
| PIN No. | ID | FUNCTION |
|---------|-----|------------------|
| 1 | DA | DA |
| 2 | DG | DG |
| 3 | DB | DB |
| 4 | SLD | Shield |
| 5 | FE | Functional earth |

EXTERNAL DIMENSIONS unit: mm [inch]

■UNIT



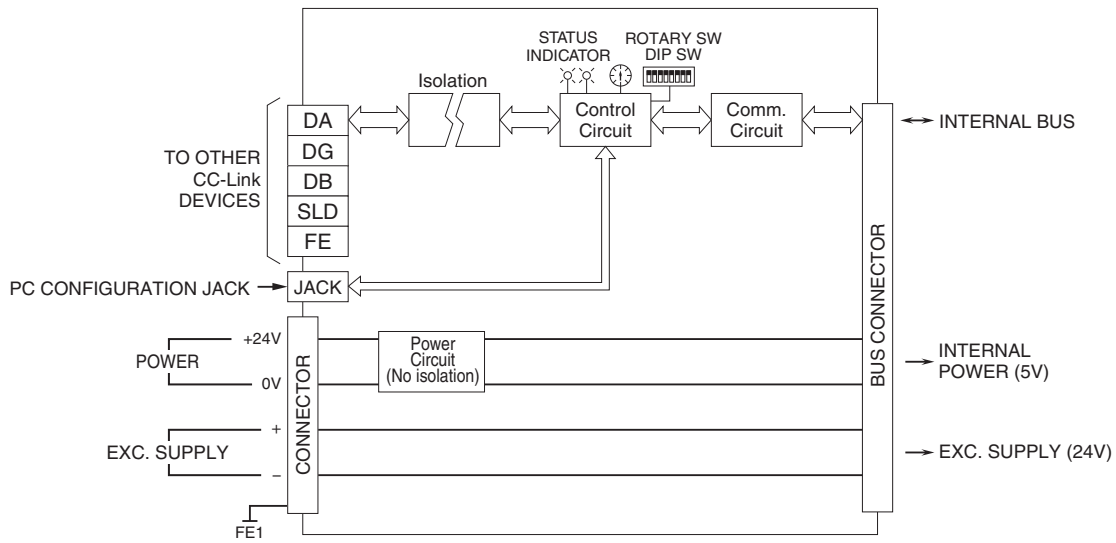
■PROTECTIVE COVER



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.