

## Remote I/O R8 Series

### POWER/NETWORK MODULE

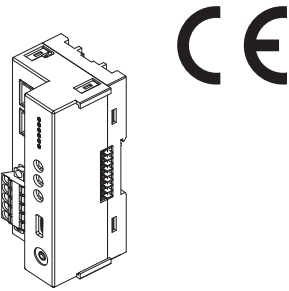
(EtherNet/IP)

#### Functions & Features

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

#### Typical Applications

- Remote I/O for DCS and PLC



### MODEL: R8-NEIP1-R[1]

#### ORDERING INFORMATION

- Code number: R8-NEIP1-R[1]

Specify a code from below for [1].

- (e.g. R8-NEIP1-R/Q)
- Specify the specification for option code /Q (e.g. /C01)

#### MODULE TYPE

NEIP1: EtherNet/IP

#### 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)
- EDS file

The EDS file and configurator software are downloadable at M-System's web site.

#### PACKAGE INCLUDES...

- Protective cover

#### GENERAL SPECIFICATIONS

##### Connection

- **Power input or excitation supply:** Tension clamp (Front Twin connection)

**Applicable wire size:** 0.2 - 2.5 mm<sup>2</sup>

**Stripped length:** 10 mm

- **EtherNet/IP:** RJ-45 modular jack

- **Internal bus or internal power or excitation supply:** Via internal bus connector

**Max. number of I/O modules:** 16

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

**Isolation:** EtherNet/IP to internal bus or internal power or power input to excitation supply to FE1

**Status indicators:** Power, RUN, MS, NS, LNK1, LNK2

**Data allocation:** Mode 1, 2

#### EtherNet/IP COMMUNICATION

**Communication Standard:** IEEE 802.3u

**Transmission:** 10BASE-T, 100BASE-TX

**Baud rate:** 10/100 Mbps (Auto Negotiation function)

**Protocol:** EtherNet/IP

**Connection type:** Exclusive owner / Listen only / Input only

**Max. number of socket connections:** 3

**Transmission media:** 10BASE-T (STP, Category 5), 100BASE-TX (STP, Category 5e)

**Network topology:** Line, star and ring

**Max. length of fieldbus segment:** 100 meters

**IP address:** 192.168.0.250 (factory setting);

Only host address in IP address is configurable via rotary switches, the other items via PC configurator software (model: R8CFG).

DLR supported

**Port No.:** 2222, 44818

**I/O data size:** 40 - 140 byte (configurable with DIP SW)

**Status indicator LEDs:** MS, NS (Refer to the instruction manual for details)

#### 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:** -10 to +55°C (14 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

(EthrtNet/IP to internal bus or internal power or power input to excitation supply to FE1)

## STANDARDS & APPROVALS

**EU conformity:**

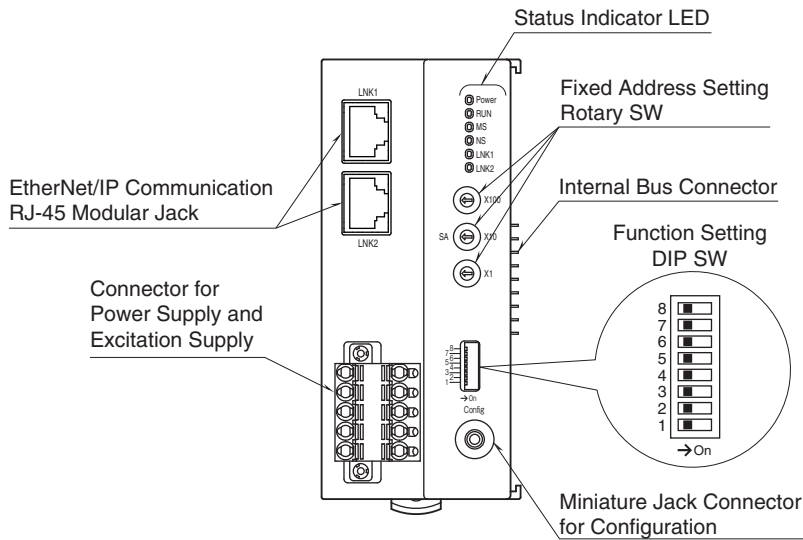
EMC Directive

EMI EN 61000-6-4

EMS EN 61000-6-2

RoHS Directive

## EXTERNAL VIEW



### ■ STATUS INDICATOR LED

ID	STATE	COLOR	TO INDICATE
Power	ON	Green	Power supplied
RUN	ON/Blink	Green	Turns on or blinks depending on the status
MS	ON	Green	Normal operation
	ON	Red	Critical failure
	Blink		Minor failure
NS	On	Green	Connections are established
	Blink		Connections are not established
	ON	Red	Critical Link failure
	Blink		Minor Link failure
LNK1	ON	Green	Link 1 is established
LNK2	ON	Green	Link 2 is established

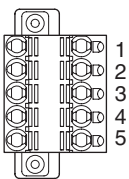
## CONNECTION DIAGRAMS

### ■ POWER SUPPLY, EXCITATION SUPPLY CONNECTOR TERMINAL ASSIGNMENT

Printed-circuit board connector (Phoenix Contact)

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

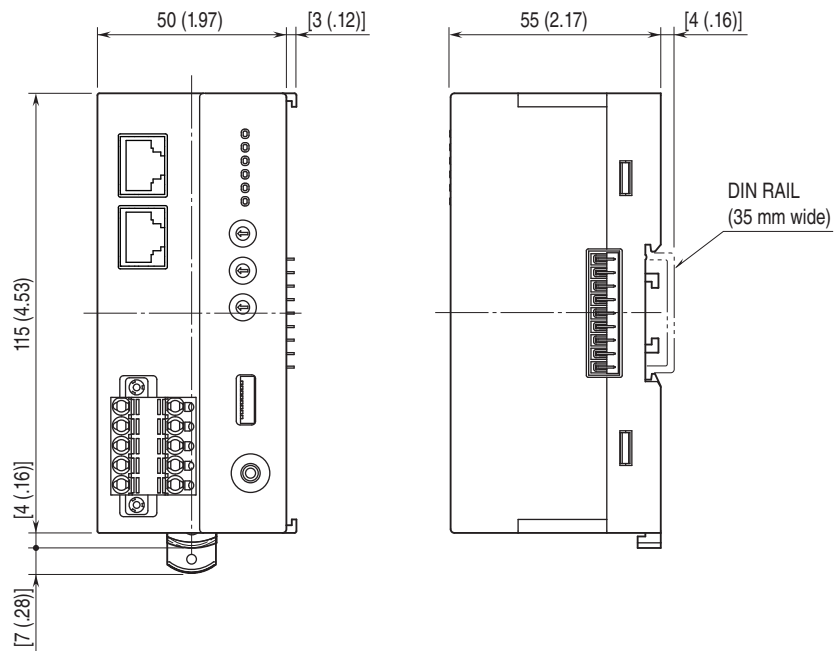
Cable side connector: TFKC2,5/5-STF-5,08AU



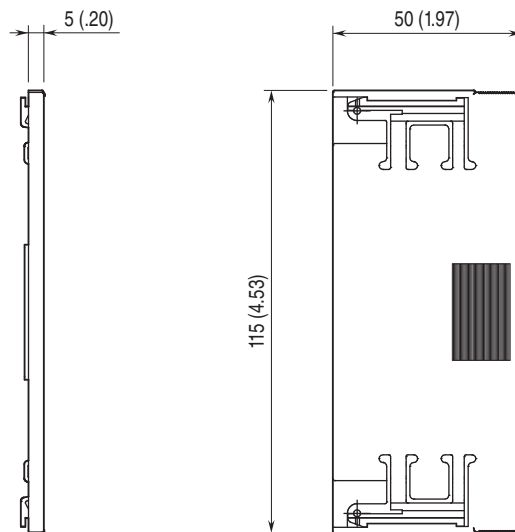
PIN No.	ID	FUNCTION
1	24V	Power supply 24V DC
2	0V	Power supply 0V DC
3	+	Excitation supply 24V DC
4	-	Excitation supply 0V DC
5	FE1	Grounding

## EXTERNAL DIMENSIONS unit: mm [inch]

### ■UNIT



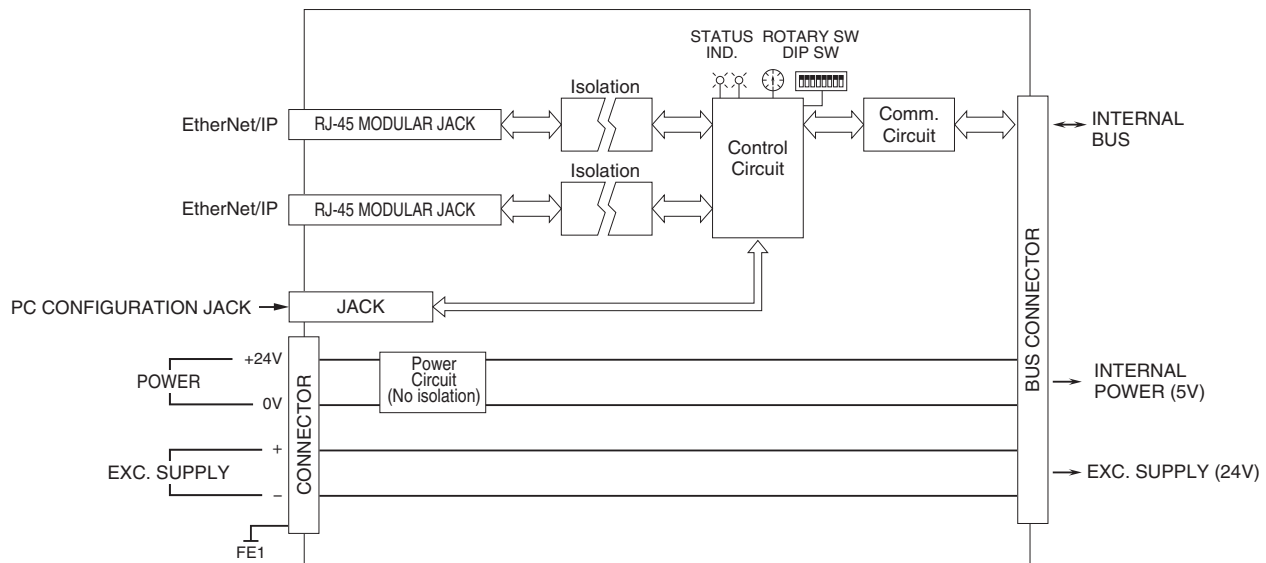
### ■PROTECTIVE COVER



## 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.