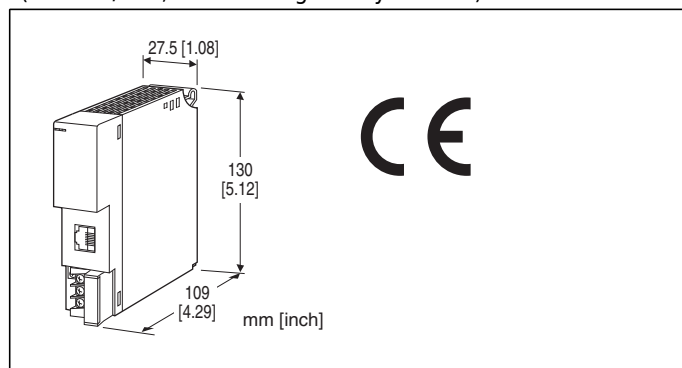


Remote I/O R3 Series

ETHERNET INTERFACE MODULE

(Modbus/TCP, for master gateway module)



MODEL: R3-NE2-[1][2]

ORDERING INFORMATION

- Code number: R3-NE2-[1][2]

Specify a code from below for each of [1] and [2].

- (e.g. R3-NE2-R/CE/Q)
- Specify the specification for option code /Q (e.g. /C01/S01/SET)

[1] POWER INPUT

N: No power supply

(Use with Ver.2.00 or higher versions of Power Supply Module (model: R3-PSx) to conform with CE marking.)

AC Power

M2: 100 – 240 V AC, 50 – 60 Hz

(Operational voltage range 85 – 264 V, 47 – 66 Hz)

DC Power

R: 24 V DC

(Operational voltage range 24 V $\pm 10\%$, ripple 10 %p-p max.) *

* Not selectable for use with independent power modules or network modules with the internal power input options.

[2] OPTIONS (multiple selections)

Standards & Approvals

blank: Without CE

/CE: CE marking

Other Options

blank: none

/Q: Option other than the above (specify the specification)

SPECIFICATIONS OF OPTION: Q (multiple selections)

COATING (For the detail, refer to our web site.)

/C01: Silicone coating

/C02: Polyurethane coating

/C03: Rubber coating

/C04: Polyolefin coating

TERMINAL SCREW MATERIAL

/S01: Stainless steel

EX-FACTORY SETTING

/SET: Preset according to the Ordering Information Sheet (No. ESU-8269)

CAUTION

This unit cannot be used in combination with any device other than the gateway module with master function (model: R3-GMM1).

Note that if any device other than R3-GMM1 is mounted, the device will not operate properly.

Modbus I/O data is not assigned to the unit. For compatible Modbus function codes and Modbus I/O assignment, refer to the specifications or instruction manual of R3-GMM1.

RELATED PRODUCTS

- PC Configurator cable (model: MCN-CON or COP-US)

- PC configurator software (model: R3CON)

Downloadable at our web site.

GENERAL SPECIFICATIONS

Connection

Ethernet: RJ-45 modular jack

Internal bus: Via the Installation Base (model: R3-BSx)

Internal power: Via the Installation Base (model: R3-BSx)

Power input, RUN contact output: M3 separable screw terminal (torque 0.5 N·m)

Screw terminal: Nickel-plated steel (standard) or stainless steel

Number of connected devices: Max. 4

(Available address range is fixed. Refer to the R3-GMM1 specifications for the available address range.)

Isolation: Ethernet to internal bus or internal power to power supply to RUN contact output to FG

RUN indicator: Green

Green LED turns on in normal communication.

ERR indicator: Green

Green LED turns on in abnormal communication.

■ RUN CONTACT OUTPUT

RUN contact: Turns ON while the green RUN LED is ON (Ethernet in normal communication).

Rated load: 250 V AC @ 0.5 A ($\cos \phi = 1$)
30 V DC @ 0.5 A (resistive load)

Maximum switching voltage: 250 V AC or 30 V DC

Maximum switching power: 250 VA or 150 W

Minimum load: 1 V DC @ 1 mA

Mechanical life: 2×10^7 cycles (300 cycles/min.)

When driving an inductive load, external contact protection

and noise quenching recommended.

ETHERNET COMMUNICATION

Communication Standard: IEEE 802.3u

Transmission: 10BASE-T, 100BASE-TX

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

Protocol: Modbus/TCP

Data: RTU (Binary)

Max. number of socket connections: 2

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

Max. length of fieldbus segment: 100 meters

Ethernet indicator LED: LINK, DPLX, LINK10, LINK100

IP address: 192.168.0.1 (factory setting);

Selectable with PC Configurator Software (model: R3CON)

Subnet mask: Configurable via the PC configurator software (model: R3CON). (Factory setting: 255.255.255.0)

Default gateway: Configurable via the PC configurator software (model: R3CON).

(Factory setting: 192.168.0.100)

Port No.: 502

EN 61010-1, EN 61010-2-201

Installation Category II (power input)

Pollution Degree 2

Power input or RUN contact output to internal power or internal bus or Modbus/TCP:

Reinforced insulation (300 V)

Power input to RUN contact output:

Reinforced insulation (300 V)

RoHS Directive

INSTALLATION

Power consumption

•AC:

Approx. 20 VA at 100 V

Approx. 28 VA at 200 V

Approx. 30 VA at 240 V

•DC: Approx. 13 W

Current consumption (no power supply): 60 mA

Output current (power supply): 290 mA continuous at 20 V DC; 440 mA for 10 minutes

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: Installation Base (model: R3-BSx)

Weight: 200 g (0.44 lb)

PERFORMANCE

Insulation resistance: $\geq 100 \text{ M}\Omega$ with 500 V DC

Dielectric strength: 1500 V AC @ 1 minute (Ethernet to internal bus or internal power to power input to RUN contact output to FG)

STANDARDS & APPROVALS

EU conformity:

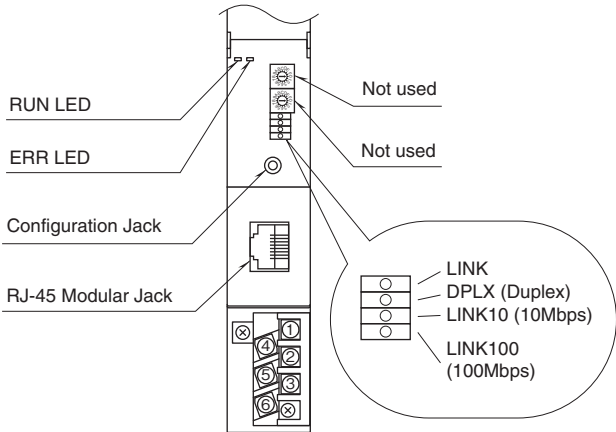
EMC Directive

EMI EN 61000-6-4

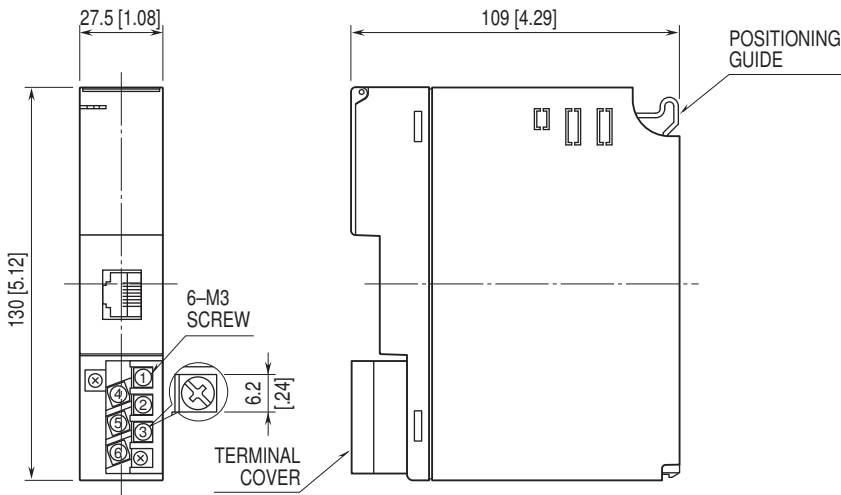
EMS EN 61000-6-2

Low Voltage Directive

EXTERNAL VIEW

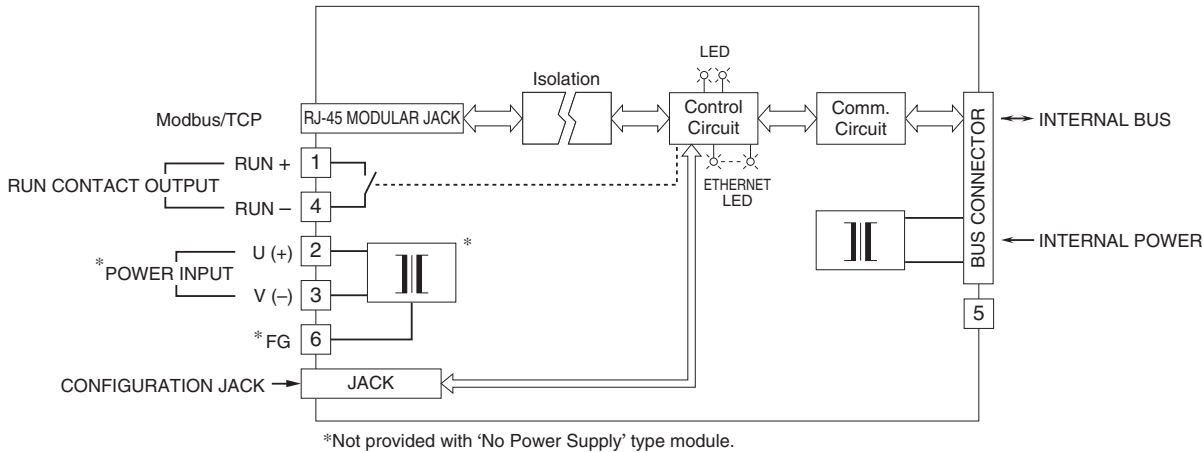


EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm [inch]

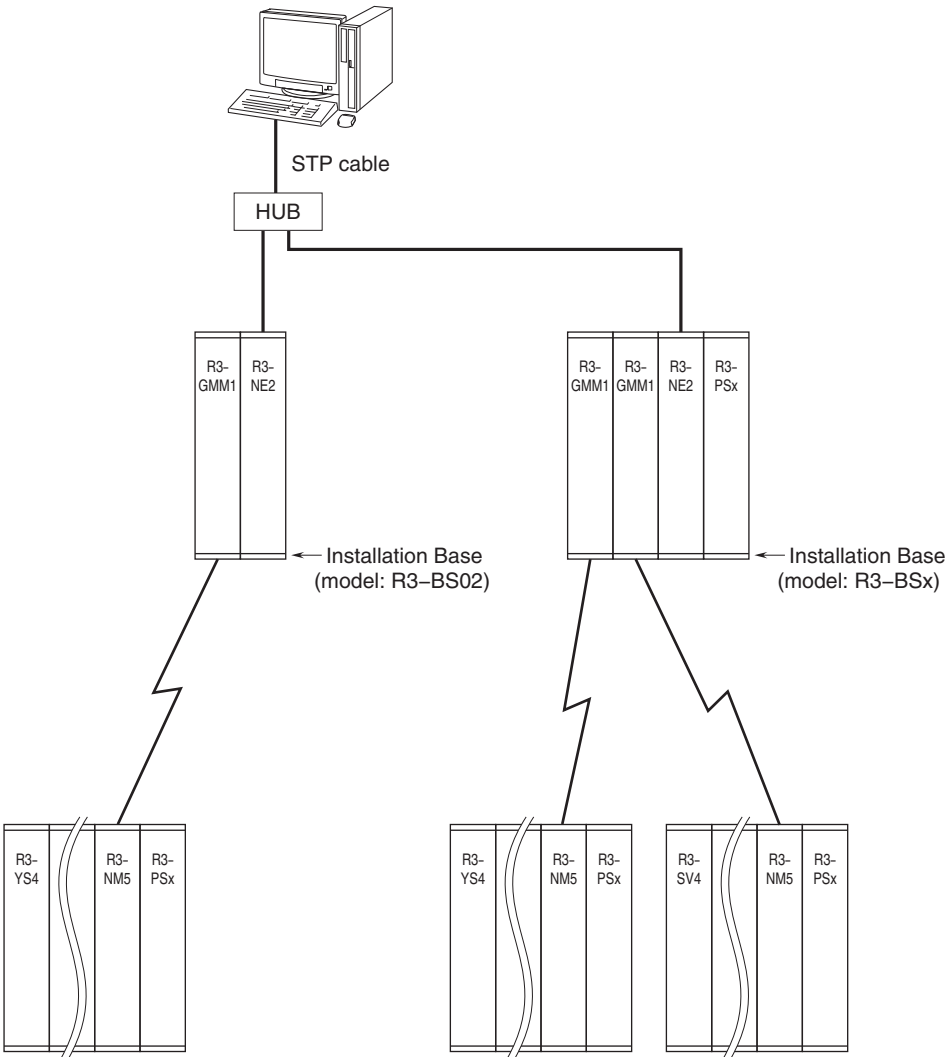


SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

Note: In order to improve EMC performance, bond the FG terminal to ground.
Caution: FG terminal is NOT a protective conductor terminal.



SYSTEM CONFIGURATION EXAMPLES



In configuration using R3-BS02, use R3-NE2 or R3-GMM1 with power supply.



Specifications are subject to change without notice.