

Remote I/O R30 Series

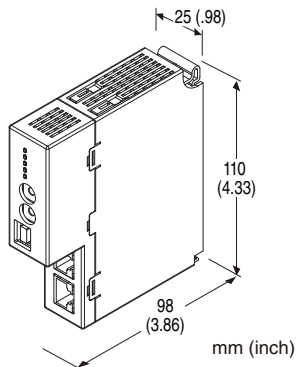
NETWORK MODULE

(EtherCAT)

Functions & Features

- Free combination of analog and discrete I/O

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MODEL: R30NECT1[1]

ORDERING INFORMATION

- Code number: R30NECT1[1]
- Specify a code from below for [1].
(e.g. R30NECT1/Q)
- Specify the specification for option code /Q
(e.g. /C01)

[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
- /C03: Rubber coating

CAUTION

- R3 series I/O modules can be added by using an installation base for R3 I/O module extension (model: R30EBS). Note that the firmware version must be 1.04.x or later.
- When using the extension base, be sure to install at least one R30 I/O module on the R30BS, otherwise

communication error occurs.

- The internal bus communication period for R3 series I/O modules installed on the R30EBS is as follows.
Internal bus communication period = 6 msec. x number of I/O module + 10 msec. (Data update period of main CPU)

Example: Four R3 I/O modules

$$6 \text{ msec.} \times 4 + 10 \text{ msec.} = 34 \text{ msec.}$$

Even when the R30EBS is mounted to the R30BS, the internal bus communication period of R30 series is kept to approx. 1 msec.

RELATED PRODUCTS

- ESI file
(downloadable at M-System's web site.)

GENERAL SPECIFICATIONS

Connection

EtherCAT: RJ-45 connector

Internal bus: Via the Installation Base (model: R30BS)

Internal power: Via the Installation Base (model: R30BS)

Isolation: EtherCAT to internal bus or internal power

Internal bus communication cycle: Approx. 1 msec.

Status indicators: PWR, RUN, ERR, L/A IN, L/A OUT

(Refer to the instruction manual.)

EtherCAT COMMUNICATION

Standard: IEEE 802.3u

Transmission type: 100BASE-TX

Transmission speed: Full-duplex 100 Mbps

Transmission media: 100BASE-TX (STP cable; Category 5e)

Maximum segment length: 100 meters

Fixed address: Set with rotary switches

(The master must support MDP.)

INSTALLATION

Current consumption: 110 mA

Operating temperature: -10 to +55°C (14 to 131°F)

Storage temperature: -20 to +65°C (-4 to +149°F)

Operating humidity: 10 to 90 %RH (non-condensing)

Atmosphere: No corrosive gas or heavy dust

Mounting: Installation Base (model: R30BS)

Weight: 110 g (0.24 lb)

PERFORMANCE

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

Dielectric strength: 1500 V AC @ 1 minute (EtherCAT to internal bus or internal power)

1500 V AC @ 1 minute (power input to FE; isolated on the power supply module)

STANDARDS & APPROVALS

EU conformity:

EMC Directive

EMI EN 61000-6-4

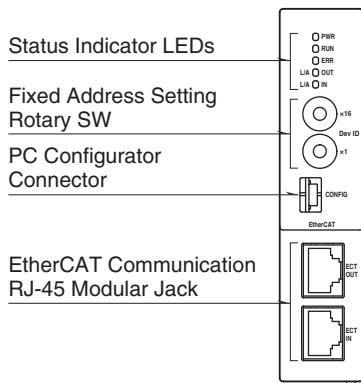
EMS EN 61000-6-2

RoHS Directive

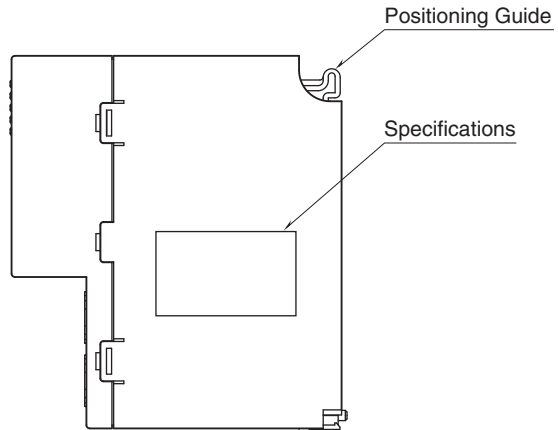
EN 50581

EXTERNAL VIEW

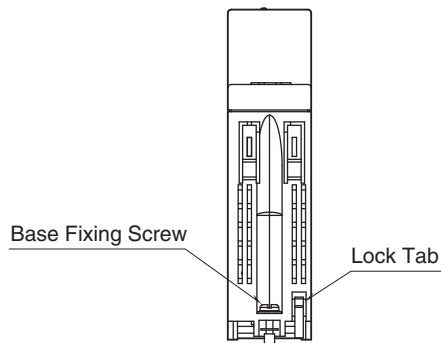
FRONT VIEW



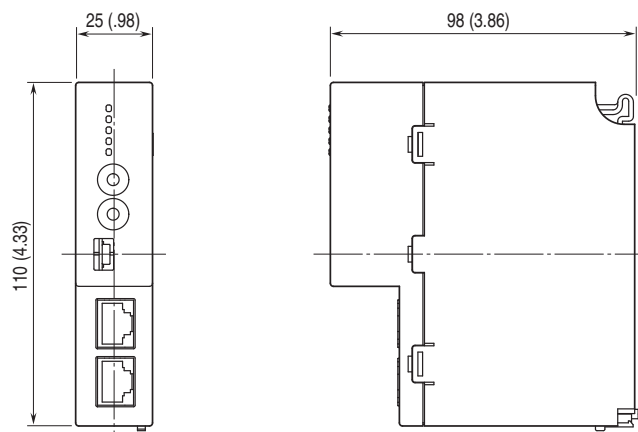
SIDE VIEW



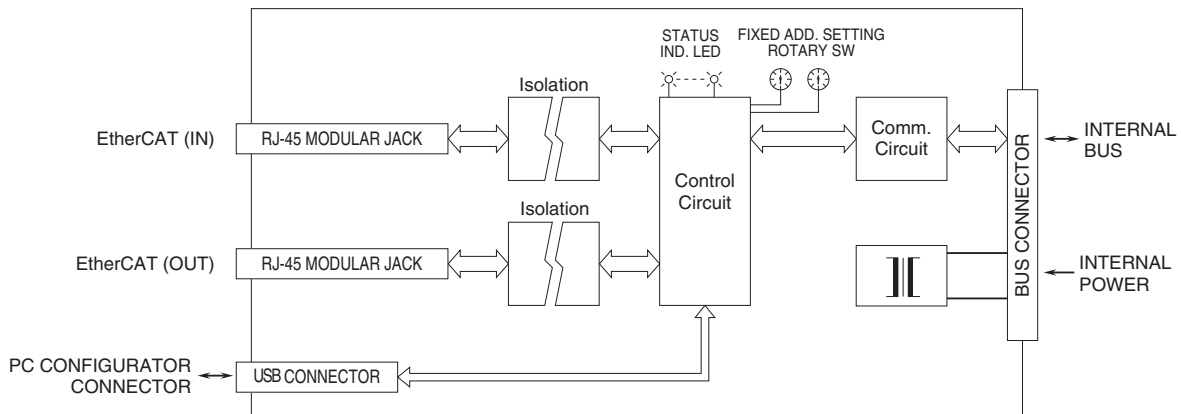
BOTTOM VIEW



EXTERNAL DIMENSIONS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.