

Remote I/O R80 Series

/C02: Polyurethane coating

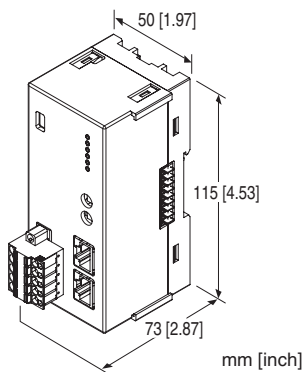
POWER/NETWORK MODULE

(EtherCAT)

Functions & Features

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

EtherCAT® is a registered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.



RELATED PRODUCTS

- PC configurator software (model: R80CFG)
- ESI file

The ESI file and configurator software are downloadable at our web site.

For connecting to PC, use commercially available Mini-B type USB cable. (provided by user)

PACKAGE INCLUDES...

- Protective cover

GENERAL SPECIFICATIONS

Connection

- **Power input and excitation supply:** Tension clamp terminal block (Front Twin connection)
- **EtherCAT:** RJ-45 modular jack
- **Internal bus, internal power and excitation supply:** Via bus connector

Max. number of I/O modules: 16

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

Isolation: Internal bus or internal power or power input to excitation supply to EtherCAT or FE1

Status indicator LEDs: PWR, RUN, ERR, L/A IN, L/A OUT
(For details, refer to the operating manual.)

MODEL: R80NECT1-R[1]

ORDERING INFORMATION

- Code number: R80NECT1-R[1]
- Specify a code from below for [1].
(e.g. R80NECT1-R/Q)
- Specify the specification for option code /Q
(e.g. /C01)

MODULE TYPE

NECT1: EtherCAT

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 our web site.)

/C01: Silicone coating

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 internode length: 100 meters

Fixed address: Set with rotary switches

(The master must support MDP.)

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 and 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: 210 g (0.46 lb)

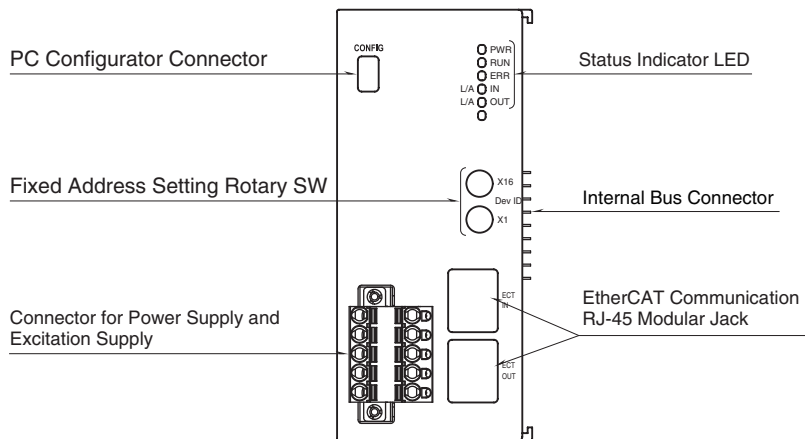
PERFORMANCE

Insulation resistance: $\geq 100 \text{ M}\Omega$ with 500 V DC
Dielectric strength: 1500 V AC @ 1 minute
 (internal bus or internal power or power input to excitation supply to EthrtCAT or FE1)

STANDARDS & APPROVALS

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

EXTERNAL VIEW



WIRING

• POWER SUPPLY AND EXCITATION SUPPLY CONNECTOR

TERMINAL ASSIGNMENT

Unit side connector: MSTBV2,5/5-GF-5, 08AU (Phoenix Contact)

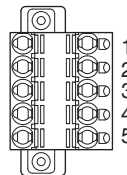
Cable side connector: TFKC2,5/5-STF-5, 08AU (Phoenix Contact)

Applicable wire size: 0.2 – 2.5 mm²; stripped length 10 mm

Recommended solderless terminal

- AI0,25–10YE 0.25 mm² (Phoenix Contact)
- AI0,34–10TQ 0.34 mm² (Phoenix Contact)
- AI0,5–10WH 0.5 mm² (Phoenix Contact)
- AI0,75–10GY 0.75 mm² (Phoenix Contact)
- AI1–10RD 1.0 mm² (Phoenix Contact)
- AI1,5–10BK 1.5 mm² (Phoenix Contact)

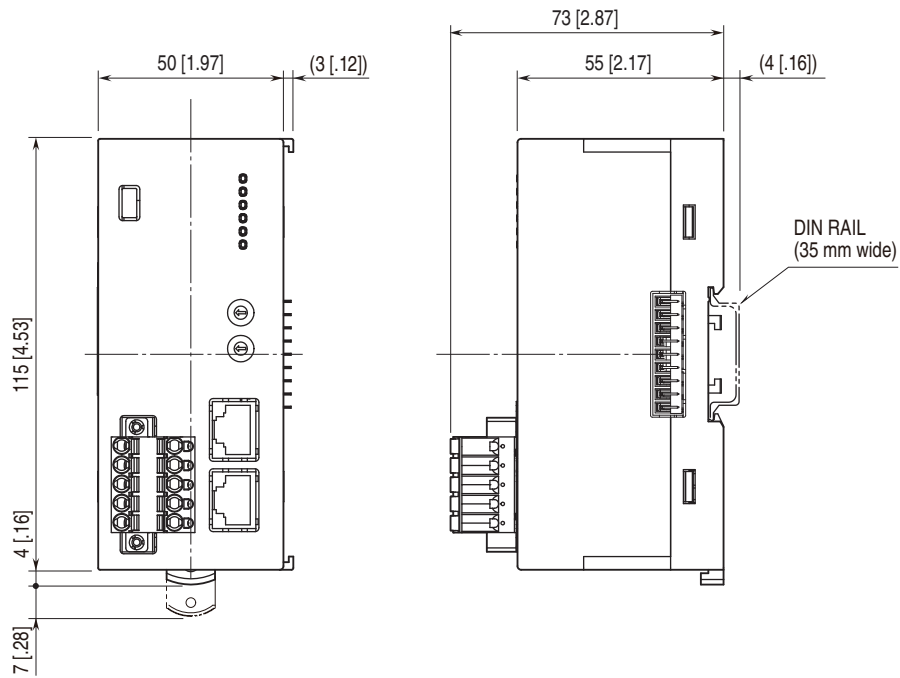
- AI2,5–10BU 2.5 mm² (Phoenix Contact)



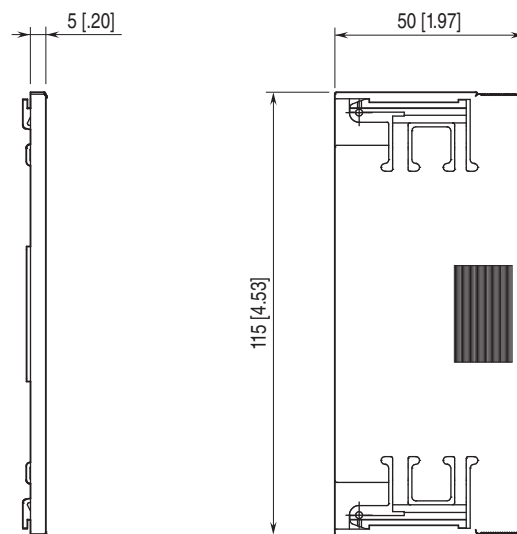
PIN No.	ID	FUNCTION
1	24 V	Power supply 24 V DC
2	0 V	Power supply 0 V DC
3	+	Excitation supply 24 V DC
4	-	Excitation supply 0 V DC
5	FE1	Grounding

EXTERNAL DIMENSIONS unit: mm [inch]

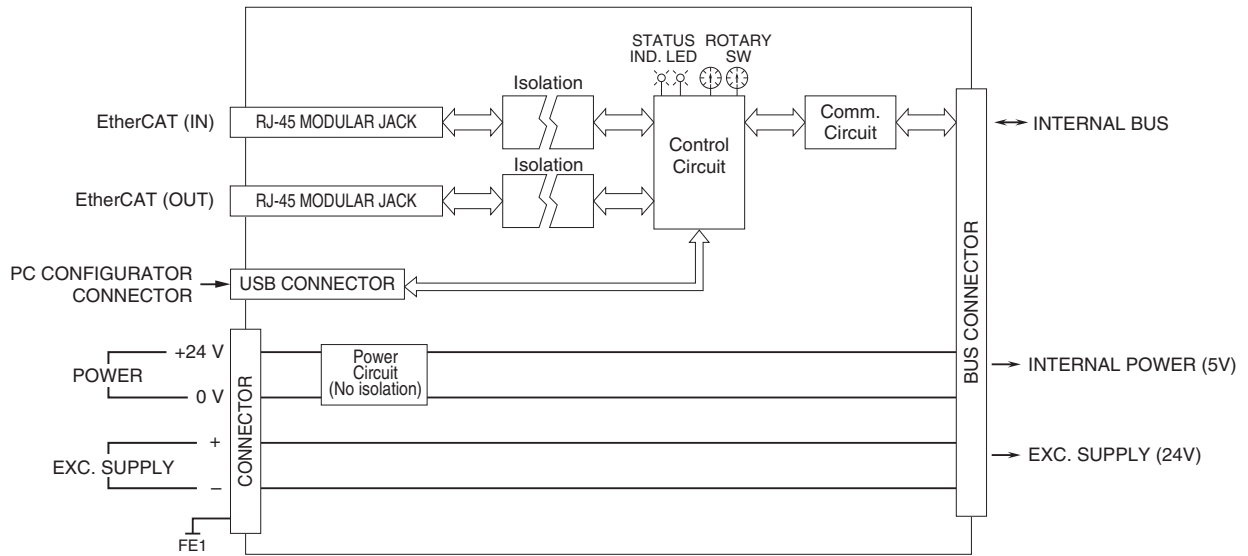
■UNIT



■PROTECTIVE COVER



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications are subject to change without notice.