

Remote I/O R80 Series

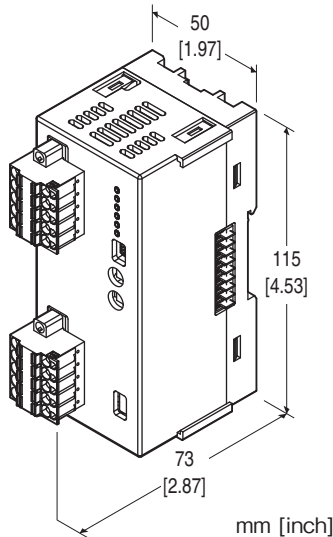
POWER/NETWORK MODULE

(DeviceNet®)

Functions & Features

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

DeviceNet is registered trademark of ODVA.



MODEL: R80ND2-R[1]

ORDERING INFORMATION

- Code number: R80ND2-R[1]
Specify a code from below for [1].
(e.g. R80ND2-R/Q)
- Specify the specification for option code /Q
(e.g. /C01)

MODULE TYPE

ND2: DeviceNet

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
/C02: Polyurethane coating

RELATED PRODUCTS

- PC configurator software (model: R80CFG)
 - EDS file
- The EDS files 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, excitation supply:** Tension clamp (Front Twin connection)

Applicable wire size: 0.2 - 2.5 mm²

Stripped length: 10 mm

- **DeviceNet:** Tension clamp (Front Twinconnection)
- **Internal bus or internal power or excitation supply:** Via connector

Housing material: Flame-resistant resin (gray)

Max. number of I/O modules: 16

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

Isolation: DeviceNet to internal bus or internal power or power input to exc. supply to FE1

Status indicator LED: PWR, RUN

Configurator connection: USB Mini-B

DeviceNet COMMUNICATION

Communication/power supply cable: Approved for DeviceNet

Baud rate setting: 125 kbps, 250 kbps, 500 kbps, auto-tracking (DIP switch, factory default: auto-tracking)
(Refer to the instruction manual.)

Node address setting: 0 - 63 (rotary switch, factory default: 00)

(Refer to the instruction manual.)

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 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)

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

Operating humidity: 30 to 90 %RH (non-condensing)

Atmosphere: No corrosive gas or heavy dust

Mounting: DIN rail

Weight: 190 g (0.42 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 exc. supply to DeviceNet to FE1)

STANDARDS & APPROVALS

EU conformity:

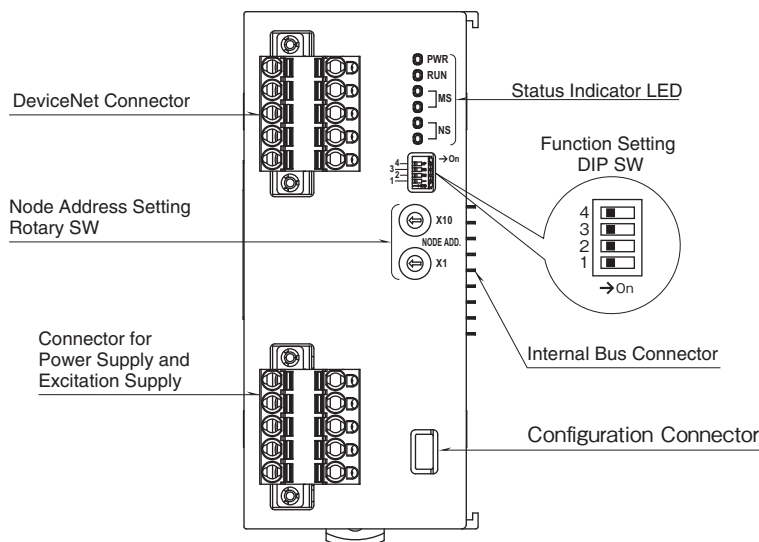
EMC Directive

EMI EN 61000-6-4

EMS EN 61000-6-2

RoHS Directive

EXTERNAL VIEW



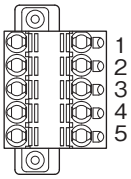
CONNECTION DIAGRAMS

■ POWER SUPPLY, 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 - 2.5mm²
 Stripped length: 10mm

Recommended solderless terminal:

- AI0,25-10YE 0.25mm² (Phoenix contact)
- AI0,34-10TQ 0.34mm² (Phoenix contact)
- AI0,5-10WH 0.5mm² (Phoenix contact)
- AI0,75-10GY 0.75mm² (Phoenix contact)
- AI1-10RD 1.0mm² (Phoenix contact)
- AI1,5-10BK 1.5mm² (Phoenix contact)
- AI2,5-10BU 2.5mm² (Phoenix contact)



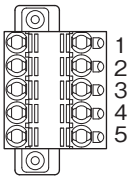
| PIN No. | ID | FUNCTION |
|---------|-----|--------------------------|
| 1 | 24V | Power supply 24V DC |
| 2 | 0V | Power supply 0V DC |
| 3 | + | Excitation supply 24V DC |
| 4 | - | Excitation supply 0V DC |
| 5 | FE1 | Grounding |

■ NETWORK CONNECTOR ASSIGNMENT

Unit side connector: MSTBV2,5/5-GF-5,08AU (Phoenix contact)
 Cable side connector: TFKC2,5/5-STF-5,08AU M (Phoenix contact)
 Applicable wire size: 0.2 - 2.5mm²
 Stripped length: 10mm

Recommended solderless terminal:

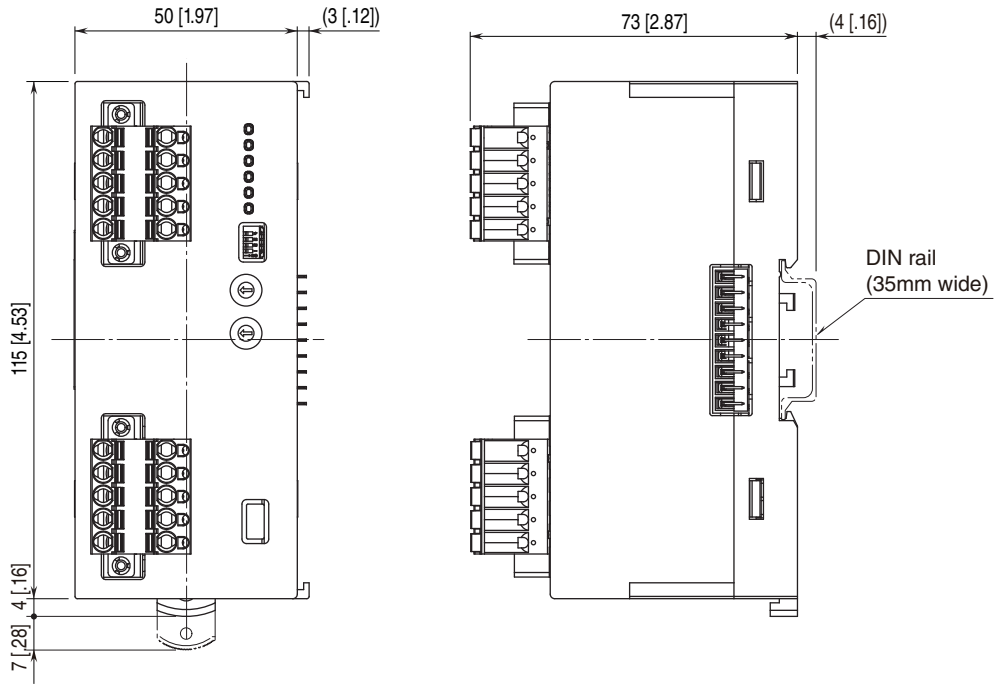
- AI0,25-10YE 0.25mm² (Phoenix contact)
- AI0,34-10TQ 0.34mm² (Phoenix contact)
- AI0,5-10WH 0.5mm² (Phoenix contact)
- AI0,75-10GY 0.75mm² (Phoenix contact)
- AI1-10RD 1.0mm² (Phoenix contact)
- AI1,5-10BK 1.5mm² (Phoenix contact)
- AI2,5-10BU 2.5mm² (Phoenix contact)



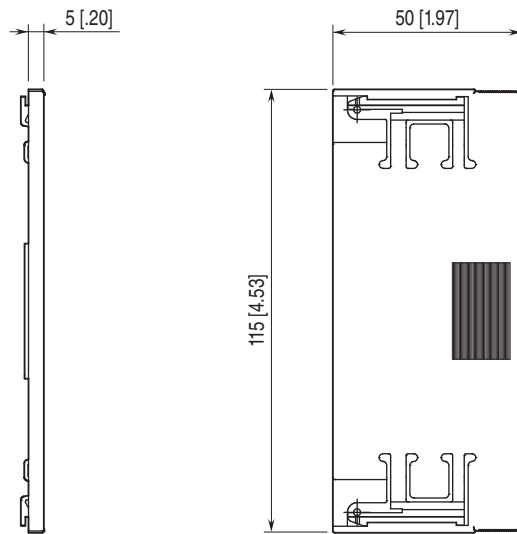
| PIN No. | ID | FUNCTION |
|---------|-------|-------------|
| 1 | V- | POWER (-) |
| 2 | CAN_L | Signal Low |
| 3 | Drain | Shield |
| 4 | CAN_H | Signal High |
| 5 | V+ | POWER (+) |

EXTERNAL DIMENSIONS unit: mm [inch]

■UNIT



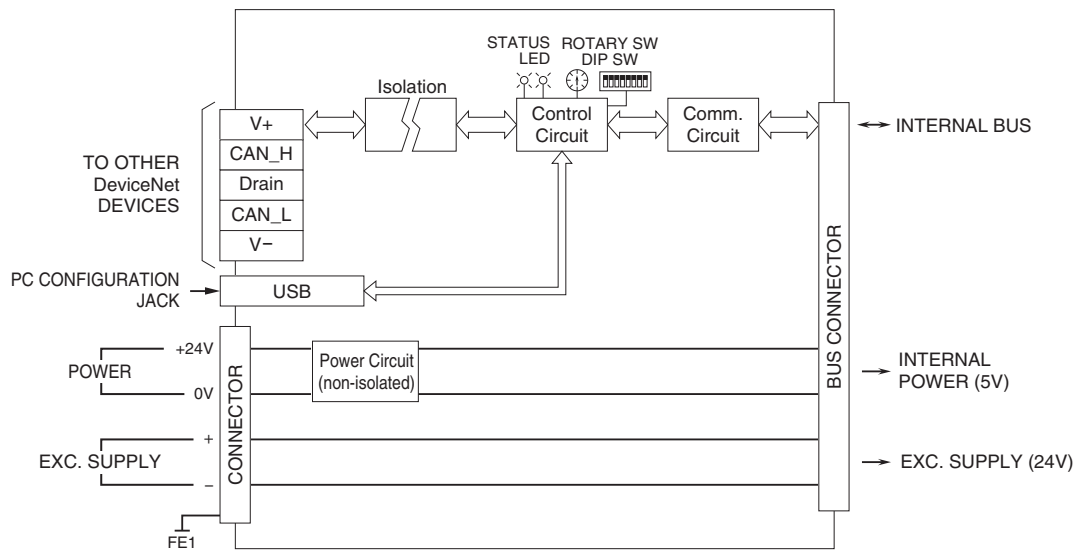
■PROTECTIVE COVER



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.