MODEL: R8-ND1

Remote I/O R8 Series

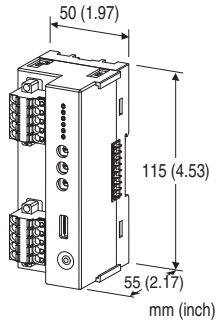
POWER/NETWORK MODULE

Functions & Features

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

Typical Applications

- Remote I/O for DCS and PLC



MODEL: R8-ND1-R

ORDERING INFORMATION

- Code number: R8-ND1-R

MODULE TYPE

ND1: DeviceNet

POWER INPUT

DC power

R: 24 V DC

(Operational voltage range: ±10 %; ripple 10 %p-p max.)

RELATED PRODUCTS

- PC Configurator cable (model: COP-US)
- PC configurator software (model: R8CFG)
- EDS file

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

PACKAGE INCLUDES...

- Protective cover

GENERAL SPECIFICATIONS

Connection

•**Power input, excitation supply**: Tension clamp (Front Twin connection)

Applicable wire size: 0.2 - 2.5 mm^2

Stripped length: 10 mm

•**DeviceNet**: Tension clamp (Front Twinconnection)

•**Internal bus, internal power and excitation supply**: Connector

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 indicators: Power, RUN, NS, MS

Data allocation: Mode 1, 2

DeviceNet COMMUNICATION

Node address setting: Set with rotary switch; 00 – 63

Baud rate setting: Set with rotary switch; 125 kbps, 250 kbps, 500 kbps

Transmission cable: Approved for DeviceNet

Stripped length 10 mm

I/O data allocation size: 8 to 64 words (variable)

INSTALLATION

Power consumption

•**DC**: Approx. 12 W 24 V DC (@ output current 1.6 A)

Internal power

•**DC**: 5 V DC

•**Operational current**: 1.6 A

Excitation supply output

•**DC**: 24 V DC ±10 %

•**Operational current:** 10 A

(Power output current consumption must be under 10 A)

Supply voltage to network: 11 – 25 V DC supplied through the network terminal block

Supply current to network: 50 mA max.

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: ≥ 100 MΩ with 500 V DC

Dielectric strength: 1500 V AC @ 1 minute

(DeviceNet to internal bus or internal power or power input to exc. supply to FE1)

STANDARDS & APPROVALS

CE conformity:

EMC Directive (2004/108/EC)

EMI EN 61000-6-4: 2007/A1: 2011

EMS EN 61000-6-2: 2005

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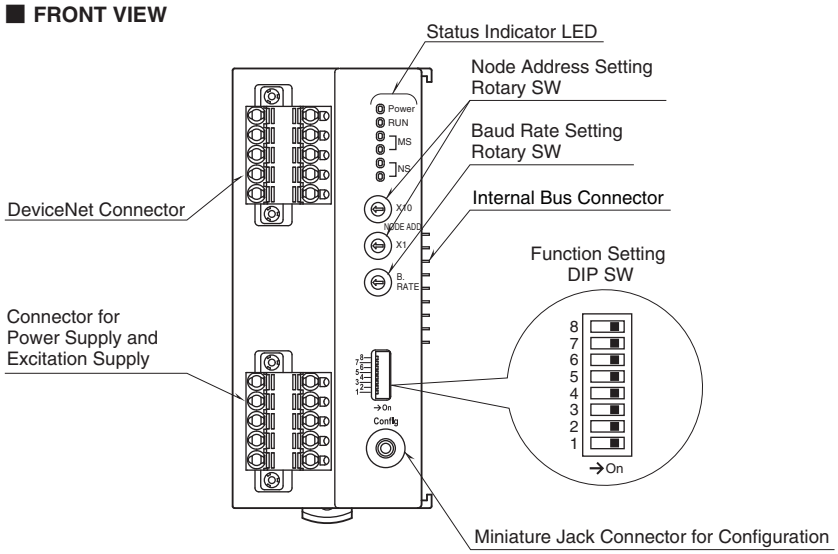
EXTERNAL VIEW

■ FRONT VIEW



LED	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

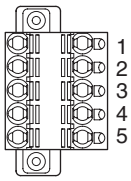
CONNECTION DIAGRAMS

■ POWER SUPPLY, EXCITATION SUPPLY CONNECTOR TERMINAL ASSIGNMENT

Printed-circuit board connector (Phoenix Contact)

Header: MSTBV2,5/5-GF-5,08AU

Plug component: TFKC2,5/5-STF-5,08AU



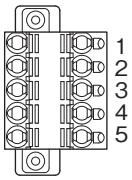
PIN No.	ID	FUNCTION
1	24V	Power supply 24V DC
2	0V	Power supply 0V DC
3	+	Excitation supply 24V DC
4	–	Excitation supply 0V DC
5	FE1	Grounding

■ NETWORK CONNECTOR ASSIGNMENT

Printed-circuit board connector (Phoenix Contact)

Header: MSTBV2,5/5-GF-5,08AU

Plug component: TFKC2,5/5-STF-5,08AU M



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

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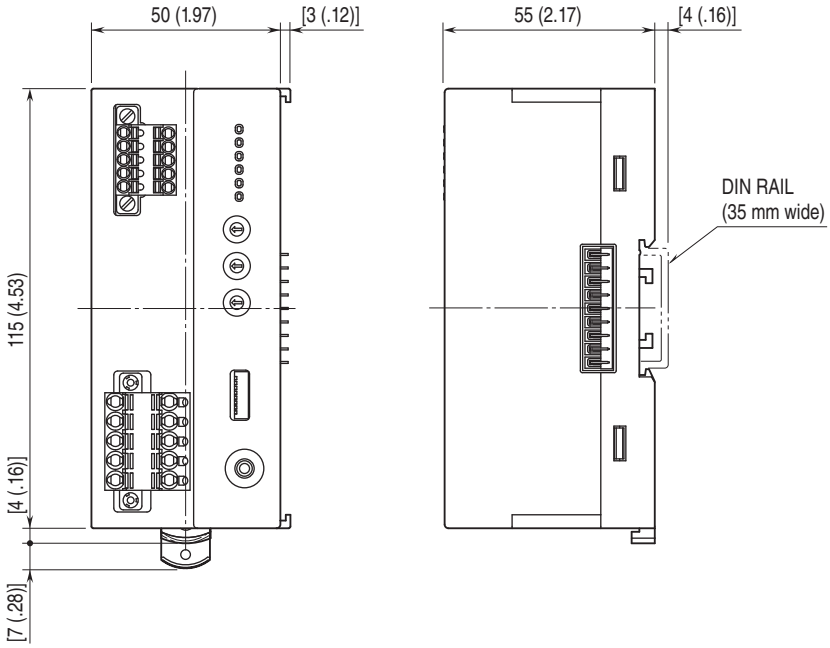
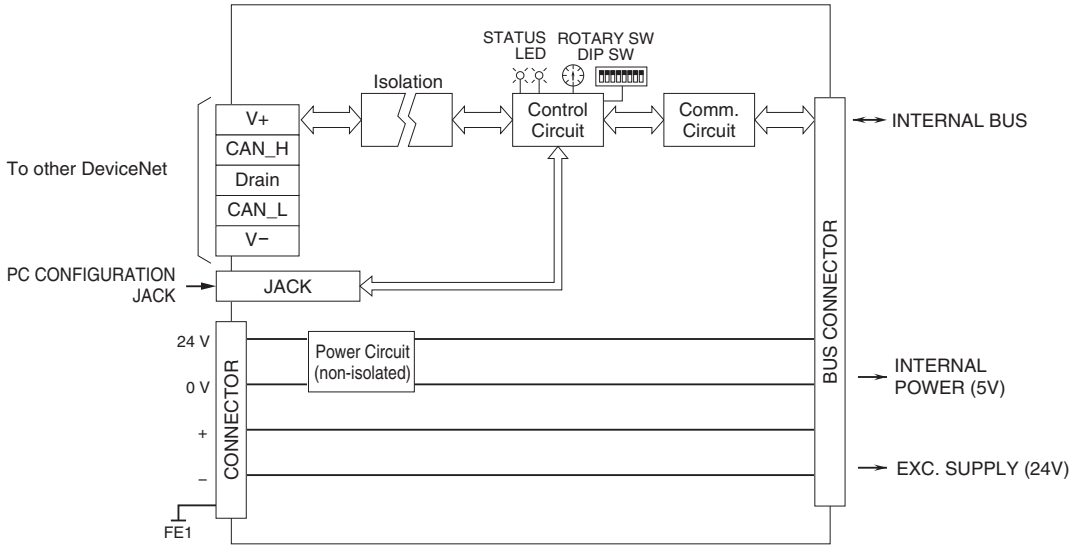
EXTERNAL DIMENSIONS & TERMINAL ASSIGNMENTS unit: mm (inch)



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.

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