Remote I/O R8 Series

POWER NETWORK MODULE (Ethernet)

Functions & Features
• Free combination of analog and discrete I/O
• Space-saving

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MODEL: R8-NECT1-R[1]

ORDERING INFORMATION
• Code number: R8-NECT1-R[1]
 Specify a code from below for [1]. (e.g. R8-NECT1-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: ±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 M-System’s web site.)
/C01: Silicone coating
/C02: Polyurethane coating

RELATED PRODUCTS
• PC Configurator cable (model: COP-US)
• PC configurator software (model: R8CFG)
Downloadable at M-System’s web site.

PACKAGE INCLUDES...
• Protective cover

GENERAL SPECIFICATIONS
Connection
• Power input or excitation supply: Tension clamp (Front Twin connection)
  Applicable wire size: 0.2 - 2.5 mm²
  Stripped length: 10 mm
• EtherCAT: RJ-45 connector
• Internal bus or internal power or excitation supply: Via connector
Max. number of I/O modules: 16
(Max. consumption current of I/O modules: 1.6 A)
Isolation: EtherCAT to internal bus or internal power or power input to excitation supply to FE1
Status indicators: Power, RUN, ERR, I/A IN, I/A OUT
Communication failure detection time: 100 msec. (fixed)
(Time between LAN failure and operation of I/O module at communication failure)

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 ±10 %
• Operational current: 10 A
(From power supply (exitation 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: 180 g (0.40 lb)

PERFORMANCE
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 1500 V AC @ 1 minute
(EthrtCAT to internal bus or internal power or power input to excitation supply to FE1)

STANDARDS & APPROVALS
EU conformity:
EMC Directive
EMI EN 61000-6-4
EMS EN 61000-6-2
RoHS Directive
EN 50581

EXTERNAL VIEW
■ FRONT VIEW

■ STATUS INDICATOR LED
<table>
<thead>
<tr>
<th>ID</th>
<th>COLOR</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>Green</td>
<td>On at internal power supply</td>
</tr>
<tr>
<td>RUN</td>
<td>Green</td>
<td>On or blink depending upon state</td>
</tr>
<tr>
<td>ERR</td>
<td>Red</td>
<td>On or blink at error</td>
</tr>
<tr>
<td>L/A IN</td>
<td>Green</td>
<td>On or blink depending upon IN port</td>
</tr>
<tr>
<td>L/A OUT</td>
<td>Green</td>
<td>On or blink depending upon OUT port</td>
</tr>
</tbody>
</table>
CONNECTION DIAGRAMS

POWER SUPPLY, EXCITATION SUPPLY CONNECTOR TERMINAL ASSIGNMENT
Printed-circuit board connector (Phoenix Contact)
  Unit side connector: MSTBV2,5/5-GF-5,08AU
  Cable side connector: TFKC2,5/5-STF-5,08AU

<table>
<thead>
<tr>
<th>PIN No.</th>
<th>ID</th>
<th>FUNCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>24V</td>
<td>Power supply 24V DC</td>
</tr>
<tr>
<td>2</td>
<td>0V</td>
<td>Power supply 0V DC</td>
</tr>
<tr>
<td>3</td>
<td>+</td>
<td>Excitation supply 24V DC</td>
</tr>
<tr>
<td>4</td>
<td>−</td>
<td>Excitation supply 0V DC</td>
</tr>
<tr>
<td>5</td>
<td>FE1</td>
<td>Grounding</td>
</tr>
</tbody>
</table>

1 2
3 4
5
EXTERNAL DIMENSIONS unit: mm (inch)

- UNIT

- PROTECTIVE COVER
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.