



# MP-FEN1

Ethernet Module Main Unit



\*Please note that accessories depicted in the image are for illustrative purposes only and may not be included with the product.

## Specifications

|                                    |                                                   |                                                                                                    |
|------------------------------------|---------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Model                              |                                                   | MP-FEN1                                                                                            |
| Ethernet specifications            | Compliant standard                                | IEEE802.3u (100BASE-TX)                                                                            |
|                                    | Transmission rate                                 | 100 Mbps (100BASE-TX)                                                                              |
|                                    | Transmission media                                | Category 5 or higher STP (shielded twisted pair)                                                   |
|                                    | Connector type                                    | M12, 4-pin, female, D-code                                                                         |
|                                    | Maximum cable length                              | 100 m <a href="#">328.1'</a> (between nodes)                                                       |
|                                    | Supported networks                                | EtherNet/IP™, PROFINET, Modbus/TCP, MC protocol/SLMP                                               |
| Number of connectible models/units |                                                   | MP-F main unit: 1<br>MP-FEA1: up to 10<br>FD-R: 1                                                  |
| EtherNet/IP™                       | Supported functions                               | Cyclic communication (Implicit messaging)<br>Message communication (Explicit messaging)            |
|                                    | Number of connections                             | 16                                                                                                 |
|                                    | Supported connections                             | Input Only, Exclusive Owner                                                                        |
|                                    | RPI (communication cycle)                         | 4 to 10,000 ms                                                                                     |
| PROFINET                           | Compatible network                                | PROFINET IO communication                                                                          |
|                                    | Supported functions                               | Cyclic communication (data I/O communication)<br>Acyclic communication (record data communication) |
|                                    | Conformance class                                 | Compliant with Conformance Class B                                                                 |
|                                    | Conformance test version                          | Compliant with ver. 2.42                                                                           |
|                                    | Applicable protocols                              | LLDP, SNMP, DCP                                                                                    |
|                                    | Net load                                          | Class 2                                                                                            |
|                                    | Cyclic update time                                | 4 to 2048 ms                                                                                       |
| MODBUS/TCP                         | Communication method                              | TCP/IP                                                                                             |
|                                    | Compatible configuration                          | Server                                                                                             |
|                                    | Maximum number of simultaneous client connections | 4                                                                                                  |
| MC protocol/ SLMP                  | Communication method                              | TCP/IP, UDP/IP                                                                                     |
|                                    | Maximum number of connections                     | 4                                                                                                  |
|                                    | Compatible frames                                 | QnA-compatible 3E frame, 4E frame                                                                  |
|                                    | Data format                                       | Binary/ASCII                                                                                       |
| Power supply specifications        | Connector type                                    | M12, 4 pins, A-code, cable length: 50 cm <a href="#">19.69"</a>                                    |
|                                    | Power supply voltage                              | 24 VDC +25%/-20% (including ripple), Class 2 or LPS                                                |
|                                    | Current consumption                               | 40 mA *1                                                                                           |
| Environmental resistance           | Enclosure rating                                  | IP67 (IEC60529)                                                                                    |
|                                    | Ambient temperature                               | -20 to 60°C <a href="#">-4 to +140°F</a>                                                           |

|          |                                                 |                                                                                        |
|----------|-------------------------------------------------|----------------------------------------------------------------------------------------|
|          | Relative humidity                               | 35%RH to 85%RH (no condensation)                                                       |
|          | Vibration resistance                            | 10 to 500 Hz; power spectral density: 0.816 G <sup>2</sup> /Hz; X, Y, and Z directions |
|          | Shock resistance                                | 100 m/s <sup>2</sup> , XYZ axes, 1000 times for each axis                              |
| Material | Case: PBT/PAR<br>Connector: Nickel-plated brass |                                                                                        |
| Weight   | Approx. 150 g <a href="#">5.29 oz</a>           |                                                                                        |

\*1 When connecting to the FD-R Series: 190 mA max.

Dimensions

\* Download CAD file or product manual for larger image/text and more detail.

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