



## EtherNet/IP to Modbus Gateway ICDM-RX/EN1-2DB9/RJ45-DIN

- DIN-rail mounting and DB9 connectors
- EtherNet/IP to Modbus TCP, Modbus TCP to EtherNet/IP, and Modbus to Modbus communications
- Advanced Modbus gateway and routing capabilities
- Data Mapping sub-system and a built-in Modbus concentrator
- Web-based configuration
- RS-232/422/485 software selectable interfaces
- NEMA TS2 Certified

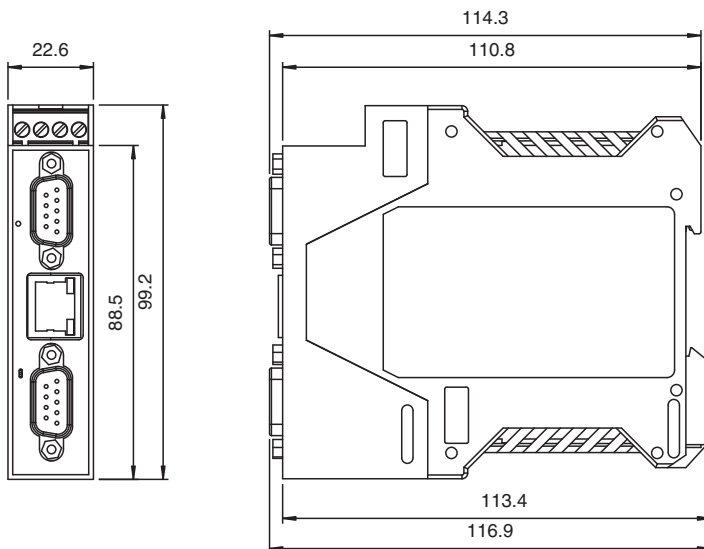
EtherNet/IP to Modbus Gateway 2-port DIN rail DB9



### Function

The ICDM-RX/EN1 gateway enables the connection of serial devices (RS-232 / RS-422 / RS-485) such as barcode scanners, RFID readers and weigh scales to both EtherNet/IP and Modbus networks. It combines an EtherNet/IP interface with a Modbus gateway functionality and a built-in programmable data mapping sub-system, that ties everything together and doubles as a Modbus concentrator. The embedded web pages provide extensive diagnostics, intuitive and flexible configuration options, secure interfaces and numerous maintenance options. The result is a highly flexible gateway that allows full integration of EtherNet/IP controllers into simple or complex Modbus networks. EtherNet/IP controllers such as PLCs, HMIs, SCADAs and OPC servers can communicate to almost any Modbus master or slave, either locally or remotely.

### Dimensions



### Technical Data

#### General specifications

|                |         |
|----------------|---------|
| UL File Number | E360395 |
|----------------|---------|

#### Functional safety related parameters

|      |        |
|------|--------|
| MTBF | 46.3 a |
|------|--------|

#### Indicators/operating means

|                |            |
|----------------|------------|
| LED indication | see manual |
|----------------|------------|

#### Electrical specifications

|                         |       |               |
|-------------------------|-------|---------------|
| Rated operating voltage | $U_e$ | 5 ... 30 V DC |
|-------------------------|-------|---------------|

|                     |                 |
|---------------------|-----------------|
| General information | Redundant power |
|---------------------|-----------------|

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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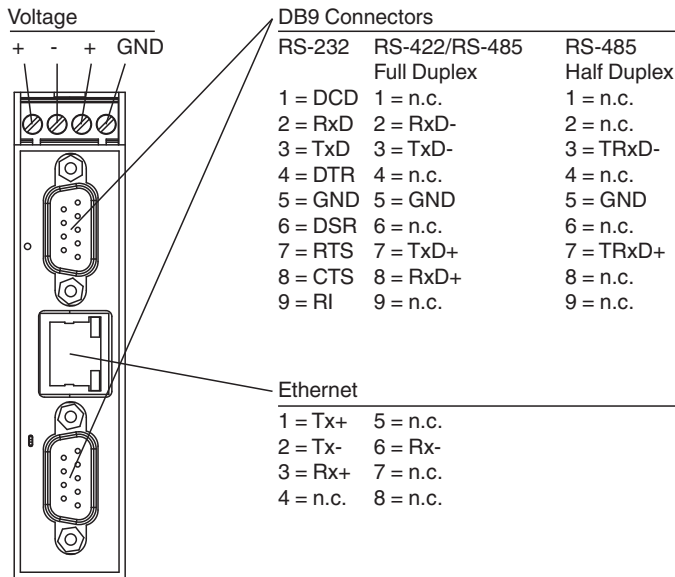
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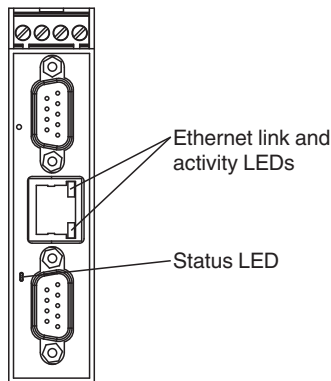
## Technical Data

|                                  |                                                                                                                                                                                             |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nominal voltage                  | 24 V DC                                                                                                                                                                                     |
| <b>Interface</b>                 |                                                                                                                                                                                             |
| Interface type                   | Software selectable interfaces: RS-232 , RS-422 , RS-485 (2 and 4-wire)                                                                                                                     |
| Physical                         | 2 x DB9                                                                                                                                                                                     |
| Protocol                         | MODBUS                                                                                                                                                                                      |
| Supported baud rates             | 300 bps to 230Kbps                                                                                                                                                                          |
| <b>Interface 1</b>               |                                                                                                                                                                                             |
| Interface type                   | Industrial Ethernet                                                                                                                                                                         |
| Physical                         | 1 x RJ45                                                                                                                                                                                    |
| Protocol                         | EtherNet/IP                                                                                                                                                                                 |
| Additional protocols             | ARP, BOOTP, DHCP/RARP, HTTP, HTTPS, SSH, SSL/TLS, ICMP, RFC 1006 (ISO over TCP), SNMP (MIB-II), TCP/IP & UDP socket services, Telnet, and TFTP, and supports IP multicast data transmission |
| Transfer rate                    | 10/100 Mbps                                                                                                                                                                                 |
| <b>Directive conformity</b>      |                                                                                                                                                                                             |
| Electromagnetic compatibility    |                                                                                                                                                                                             |
| Directive 2014/30/EU             | EN 61000-6-2 , EN 55024 , EN 610006-4 , EN 55032                                                                                                                                            |
| <b>Standard conformity</b>       |                                                                                                                                                                                             |
| Degree of protection             | NEMA TS2                                                                                                                                                                                    |
| Electrical safety                | CSA C22.2 No. 61010-1-12<br>UL 61010-1 / IEC 61010-2-201                                                                                                                                    |
| Emitted interference             | EN 61000-6-4, EN 55032, FCC Part 15 Subpart B, ICES-003, AS/NZS CISPR 32                                                                                                                    |
| Noise immunity                   | EN 61000-6-2 , EN 55024                                                                                                                                                                     |
| <b>Ambient conditions</b>        |                                                                                                                                                                                             |
| Ambient temperature              | -40 ... 75 °C (-40 ... 167 °F)                                                                                                                                                              |
| Storage temperature              | -40 ... 85 °C (-40 ... 185 °F)                                                                                                                                                              |
| Relative humidity                | max. 95 %                                                                                                                                                                                   |
| Altitude                         | 0 ... 3048 m                                                                                                                                                                                |
| <b>Mechanical specifications</b> |                                                                                                                                                                                             |
| Housing length                   | 116.8 mm                                                                                                                                                                                    |
| Housing width                    | 22.9 mm                                                                                                                                                                                     |
| Housing height                   | 99.1 mm                                                                                                                                                                                     |
| Degree of protection             | IP20                                                                                                                                                                                        |
| Connection                       | Power Supply: screw terminals<br>Fieldbus: 1 x RJ45<br>Inputs/outputs: 2 x DB9                                                                                                              |
| Material                         |                                                                                                                                                                                             |
| Housing                          | Polyamide, UL94V-0                                                                                                                                                                          |
| Mass                             | 136g                                                                                                                                                                                        |
| Construction type                | Cabinet module                                                                                                                                                                              |
| Mounting                         | DIN mounting rail                                                                                                                                                                           |

## Wiring Diagram



## Assembly



## Accessories

|  |                                     |                                                                                                                              |
|--|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
|  | <b>V45-G-C5-GN1M-PUR-E1S</b>        | Ethernet bus cable male cordset single-ended RJ45, 4-pin, PUR cable green, Cat5e, shielded, UL approved, drag chain suitable |
|  | <b>V45-G-C5-GN3M-PUR-E1S</b>        | Ethernet bus cable male cordset single-ended RJ45, 4-pin, PUR cable green, Cat5e, shielded, UL approved, drag chain suitable |
|  | <b>V45-G-C5-GN10M-PUR-E1S</b>       | Ethernet bus cable male cordset single-ended RJ45, 4-pin, PUR cable green, Cat5e, shielded, UL approved, drag chain suitable |
|  | <b>V45-G-C5-GN1M-PUR-E1S-V45-G</b>  | Ethernet bus cable RJ45 to RJ45 PROFINET-coded, 4-pin, PUR cable green, Cat5e, shielded, UL approved, drag chain suitable    |
|  | <b>V45-G-C5-GN3M-PUR-E1S-V45-G</b>  | Ethernet bus cable RJ45 to RJ45 PROFINET-coded, 4-pin, PUR cable green, Cat5e, shielded, UL approved, drag chain suitable    |
|  | <b>V45-G-C5-GN10M-PUR-E1S-V45-G</b> | Ethernet bus cable RJ45 to RJ45 PROFINET-coded, 4-pin, PUR cable green, Cat5e, shielded, UL approved, drag chain suitable    |
|  | <b>V45-G-C5-GN20M-PUR-E1S-V45-G</b> | Ethernet bus cable RJ45 to RJ45 PROFINET-coded, 4-pin, PUR cable green, Cat5e, shielded, UL approved, drag chain suitable    |