ProSoft Technology PLX31-EIP-MBS4

EtherNet/IP to Four-Port Modbus Serial Gateway



ProSoft Technology PLX31-EIP-MBS4 bridges EtherNet/IP controller data and four independent Modbus serial networks. It enables bidirectional data exchange between EtherNet/IP PACs and Modbus devices such as power monitors, instruments and supervisory systems. The gateway processes the protocol transactions in its own database, allowing each serial port to serve a separate device group with its own configuration. Multiple EtherNet/IP I/O connections support different update rates for process and status data.

Technical Specifications

Product Identity	
Manufacturer	ProSoft Technology
Model	PLX31-EIP-MBS4
Dimensions	136.7 × 50.5 × 111.3 mm
Functional Configuration	
Protocol conversion	EtherNet/IP ↔ Modbus Serial
Ethernet	1 × 10/100Base-T
Serial ports	4 × RS-232 / RS-422 / RS-485
Performance & Power	
Supply	10–36 V DC
Current at 24 V DC	300 mA nominal; 610 mA maximum
Database	10,000 registers
Master commands	Up to 100 per serial port
Environment	
Operating temperature	–25 to +70 °C
Storage temperature	–40 to +80 °C

Selected original manufacturer pages follow on pages 3–4.

Compatibility & Selection Guide

EtherNet/IP integration. PLX31-EIP-MBS4 operates as an EtherNet/IP adapter. Its embedded EDS Add-On Profile supports controller integration. It supports up to eight Class 1 I/O connections with up to 248 input and 248 output words per connection.

Four independent serial networks. Set the Modbus master or slave role and RS-232, RS-422 or RS-485 interface for each serial port. Each master port can use a separate list of up to 100 commands.

Wiring & Installation Reference

Power and serial wiring

Supply. Use 10–36 V DC and the marked power-terminal polarity.

Serial. Configure each port for the connected RS-232, RS-422 or RS-485 network. The RS-485 diagram identifies the two-wire signal pair.

DIN-rail mounting

Hook onto the rail. Position the gateway at a slight angle and engage the upper rear lip.

Rotate and secure. Press the gateway flush against the rail until the locking tab engages.

Verify the latch. Ensure the lower locking tab holds the gateway securely before making connections.

Installation precautions. Disconnect power before wiring and observe the installation location’s electrical safety requirements. Keep serial and Ethernet connections assigned to their intended interfaces.

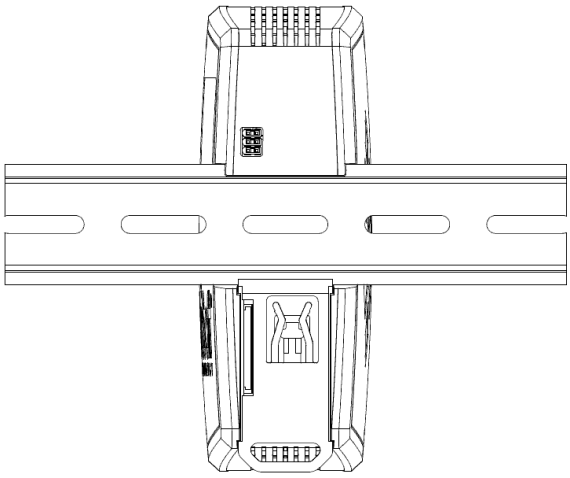
Mounting reference · PDF page 3 | Installation / connection reference · PDF page 4

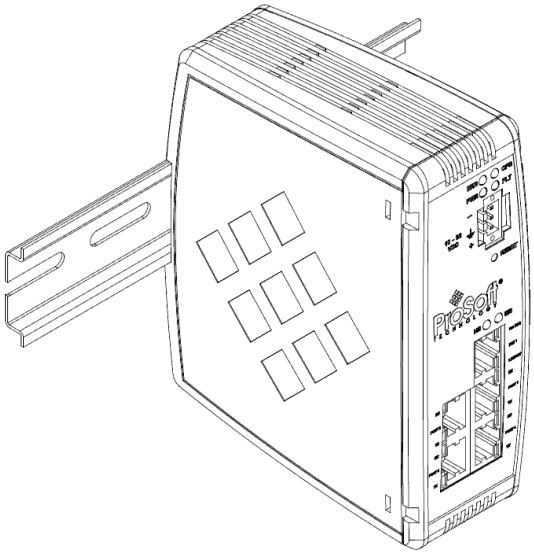
Source: ProSoft Technology PLX31-EIP-MBS4 manufacturer manual, August 25, 2026.

1.4 Best-in-class Cables and Tools

- Everything Ethernet – From tools, cabling, and patch panels, we've got you covered.
- PLC/DCS Cabling Cross Reference – Cable reference guide for Rockwell Automation, Schneider Electric, Siemens and over 20 other device manufacturers.
- General Industrial Automation – Ethernet, Serial, Fieldbus cable selection guide for industrial applications.
- PROFIBUS – Cables specifically for PROFIBUS.

1.5 Mounting the Gateway on a DIN-rail





To mount the PLX3x gateway on a DIN-rail:

1 Position the gateway on the DIN-rail at a slight angle.

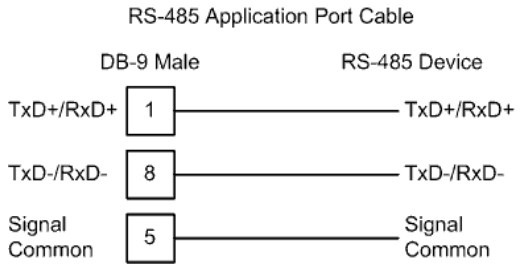
2 Hook the lip on the rear of the adapter onto the top of the DIN-rail, and rotate the adapter onto the rail.

3 Press the adapter down onto the DIN-rail until flush. The locking tab snaps into position and lock the gateway to the DIN-rail.

4 If the adapter does not lock in place, use a screwdriver or similar device to move the locking tab down while pressing the adapter flush onto the DIN-rail and release the locking tab to lock the adapter in place. If necessary, push up on the locking tab to lock.

4.2.6 RS-485 Interface Connection

The following illustration applies when the RS-485 interface is selected.



NOTE: This type of connection is commonly called a RS-485 half-duplex, 2-wire connection. If you have RS-485 4-wire, full-duplex devices, they can be connected to the gateway's serial ports by wiring together the TxD+ and RxD+ from the two pins of the full-duplex device to Pin 1 on the gateway and wiring together the TxD- and RxD- from the two pins of the full-duplex device to Pin 8 on the gateway. As an alternative, you could try setting the gateway to use the RS-422 interface and connect the full-duplex device according to the RS-422 wiring diagram. For additional assistance, please contact ProSoft Technical Support.

NOTE: Depending upon devices on the network, if there are problems in RS-485 communication that can be attributed to the signal echoes or reflections, then consider adding 120 OHM terminating resistors at both ends of the RS-485 line.