DATASHEET

ELX-EIP-MB
EtherNet/IP™ and Modbus® TCP/RTU/ASCII Protocol Gateway Container

The ELX-EIP-MB is a Docker Container designed to provide protocol gateway conversion to the ProSoft Technology ELX3 hardware platform. The protocol gateway container facilitates the data exchange between the EtherNet/IP™ (EIP) and Modbus® TCP/RTU/ASCII (MB) protocols, supporting both Client and Server functionalities.

The protocol gateway container is configured with the ProSoft Configuration Builder (PCB) software. PCB is also used to download and upload the EtherNet/IP and Modbus TCP/RTU/ASCII network configurations to the container.

The EIP driver is tested and certified by the ODVA organization and includes a shared database (10,000 16-bit registers) between EtherNet/IP and Modbus TCP/RTU/ASCII protocols, as is done with the ProSoft Technology PLX31-EIP-xxxx Communication Gateways.

Features

- **Webpage UI** contains the container name (ELX-EIP-MB), Project name loaded to the container, Container IP address, revision, Serial Number, Uptime (YY-MM-DD HH:MM:SS format), and FOSS BOM.
- **Diagnostics** option contains protocol diagnostics, protocol configuration, and database data values.
- **ProSoft Configuration Builder (PCB)** is used to configure the protocol gateway container. PCB simplifies the task of managing multiple configuration files for a variety of ProSoft Technology products.
- **ProSoft Discovery Service (PDS)** is launched from PCB or as a standalone software and scans the network for all instances of ProSoft Technology protocol gateway containers.
- EtherNet/IP™ Conformance Tested
- Modbus® TCP Client and/or Server support
- Modbus® RTU/ASCII Client and/or Server support
- Up to 10,000 16-bit registers can be used to exchange large amounts of data.

EtherNet/IP™ Specifications

Specification	Description
Number of Class 3 Server Connections	5
Supported PLC Types	ControlLogix®, CompactLogix™
Supported Message Types	CIP
Class 3 Client Connections	Connected: 2 (100 commands per client connection) Unconnected: 1
Number of Class 1 I/O Connections	8
I/O connection sizes	Input: 1 to 248 Output: 1 to 248
RPI Time Ranges	8 Connections: 10ms minimum RPI for all connections
CIP Services Supported	0x4C: CIP Data Table Read 0x4D: CIP Data Table Write CIP Generic
Client Command List	Support for 100 commands per Client, each configurable for command type, IP address, register to/from addressing and word/bit count.

Modbus® TCP Specifications

Specification	Description	
Supported Modbus Function Codes	1: Read Coil Status 2: Read Input Status 3: Read Holding Registers 4: Read Input Registers 5: Force (Write) Single Coil 6: Preset (Write) Single Holding Register 8: Diagnostics, Sub-function 00: Echo (Server Only)	15: Force (Write) Multiple Coils 16: Preset (Write) Multiple Holding Registers 22: Mask Write Holding Register (Server Only) 23: Read/Write Holding Registers (Server Only)
Supported Clients	10	
Client Command List	Up to 160 fully configurable Client commands (Maximum 16 commands per Client)	
Supported Servers	MBAP: 5 Encapsulated: 5	
Status Data	Error codes reported individually for each command	
Command List Polling	Each command can be individually enabled or disabled; write-only-on-data-change is supported	

ProSoft® TECHNOLOGY
A BELDEN BRAND

Where Automation Connects™

Global Distribution

ProSoft Technology® products are distributed and supported worldwide through a network of over 500 distributors in over 50 countries. Our knowledgeable distributors are familiar with your application needs. For a complete list of distributors, go to our website at: www.prosoft-technology.com

Global Support

We are there for you

All ProSoft Technology products are backed with free technical support. Contact our worldwide Technical Support team directly by phone or email.

Global Offices

We are where you are

ProSoft Technology has regional offices worldwide available to help you with all your industrial application needs. If you need help choosing a ProSoft Technology solution for your particular application check out our contact information under distributor sales on the website at: www.prosoft-technology.com

Whether your application is large or small, our technical professionals are there to help you choose the right communication solution.

Modbus® Serial Specifications

Specification	Description
Command List	Up to 100 commands per Client port, each fully configurable for Function Code, Server address, register to/from addressing and word/bit count.
Supported Modbus Function Codes	1: Read Coil Status 2: Read Input Status 3: Read Holding Registers 4: Read Input Registers 5: Force (Write) Single Coil 6: Preset (Write) Single Holding Register 15: Force (Write) Multiple Coils 16: Preset (Write) Multiple Holding Registers
Software configurable communication parameters	Baud rate: 1200 baud to 115.2 kbps Parity: None, Even, Odd Data Size: 7 or 8 bits Stop bits: 1 or 2 RTS on/off delay: 0 to 65535 milliseconds Modbus RTU mode (binary) with CRC-16 Modbus ASCII mode with LRC error checking Floating Point Data Floating point data movement supported, including configurable support for Enron and Daniel implementations
Polling of Command List	Configurable polling of command list, including continuous and on change of data, and dynamically user or automatic enabled.
Status Data	Error codes available on an individual command basis. In addition, a Server status list is maintained
Number of Serial Ports	1
Serial Port Isolation	2500 Vrms port signal isolation per UL 1577. Serial port communication signal uses RF (Radio Frequency) modulation signal as isolation media.
Node Address	1 to 247 (software selectable)
RS Interface	RS232 and RS485
Transmit and Receive Buffer Size	255 byte Transmit character length with 0 to 65535 millisecond delay between each transmitted character

Agency Approvals & Certifications

Please visit our website: www.prosoft-technology.com

ProSoft® TECHNOLOGY
A BELDEN BRAND

Additional Products

ProSoft Technology® offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms. For a complete list of products, visit our website at: www.prosoft-technology.com

More Information

For more information, please contact ProSoft Technology or your local distributor.

ELX-EIP-MB

EtherNet/IP™ and Modbus® TCP/RTU/ASCII Protocol Gateway Container

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft Technology distributors near you, go to: www.prosoft-technology.com and select Where to Buy from the menu.

Copyright © 2026. ProSoft Technology, Inc.
All Rights Reserved. September 24, 2026
For Public Use.
Specifications subject to change without notice.