

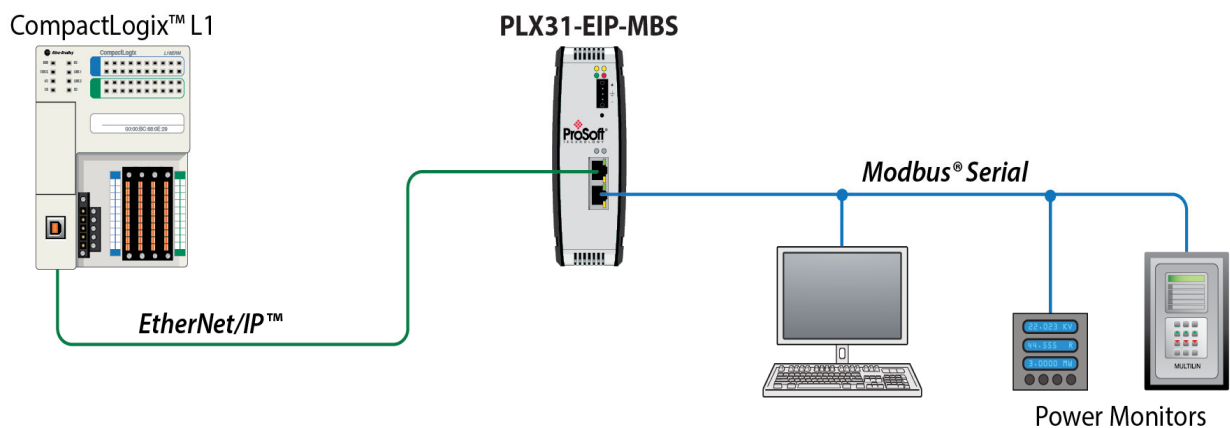
DATASHEET

EtherNet/IP™ to Modbus® Serial Communication Gateway PLX31-EIP-MBS

ProSoft Technology's EtherNet/IP™ to Modbus® Serial communication gateway allows high-speed bi-directional data transfers between EtherNet/IP™ PACs or devices and Modbus®-enabled PACs or devices.

EtherNet/IP™ PACs include Rockwell Automation® ControlLogix® and CompactLogix™, as well as several Schneider Electric® controllers. Modbus® Serial devices are widely used in nearly every industry and include SCADA systems and Power Monitors.

The gateway includes several features that allow for simplified integration, reduced commissioning time and optimized performance.



Features

- ◆ Data prioritization: Multiple I/O connections allow you to set RPIs for status and/or control data, optimizing Ethernet bandwidth.
- ◆ Includes an embedded EDS Add-On Profile, allowing for simplified integration and reduced commissioning time.
- ◆ Includes a SD card slot (SD card optional) for storing configuration files. This can be used for disaster recovery.
- ◆ ProSoft Discovery Service: This utility allows your PC to see the gateway and change its default IP address without being on the same subnet.
- ◆ Secure module configuration via module switch (v1.04 and greater).
- ◆ Up to 10,000 16-bit registers can be used to exchange large amounts of data.

Specifications

EtherNet/IP Specifications

| Specification | Description |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Number of Class 3 Server Connections | 5 |
| Supported PLC Types | PLC2, PLC5, SLC, CLX, CMLPX, MICROLX |
| Supported Message Types | PCCC and CIP |
| Class 3 Client Connections | Connected: 2 Unconnected: 1 |
| Number of Class 1 I/O Connections | 2 |
| I/O connection sizes | 248/248 |
| Max RPI time | 5 ms per connection |
| CIP Services Supported | 0x4C - CIP Data Table Read 0x4D - CIP Data Table Write CIP Generic |
| Command List | Support for 100 commands per Client, each configurable for command type, IP address, register to/from addressing and word/bit count. |
| Command Sets | PLC-2/PLC-3/PLC5 Basic Command Set PLC5 Binary Command Set PLC5 ASCII Command Set SLC500 Command Set |

Modbus Serial Specifications

| Specification | Description |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Command List | Up to 100 commands per Master port, each fully configurable for Function Code, slave 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 22: Mask Write Holding Register (Slave Only) 23: Read/Write Holding Registers (Slave Only) |
| Software configurable communication parameters | Baud rate: 110 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 slave status list is maintained |
| Node Address | 1 to 247 (software selectable) |
| RS Interface | RS232, RS422, and RS485 |
| Transmit and Receive Buffer Size | 255 byte Transmit character length with 0 to 65535 millisecond delay between each transmitted character |



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Hardware Specifications

| Specification | Description |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Supply | 24 VDC nominal 10 to 36 VDC allowed Positive, Negative, GND Terminals |
| Current Load | 24 VDC nominal @ 300 mA 10 to 36 VDC @ 610 mA maximum |
| Operating Temperature | -25°C to 70°C (-13°F to 158°F) |
| Storage Temperature | -40°C to 80°C (-40°F to 176°F) |
| Shock | IEC 60068-2-27; 15G @ 11ms, 3-Axis (Operational) IEC 60068-2-27; 30G @ 18ms, 3-Axis (Non-Operational) |
| Vibration | IEC 60068-2-6; 5G @ 10 to 150 Hz |
| Relative Humidity | 5% to 95% RH with no condensation |
| Dimensions (H x W x D) | 5.38 x 1.99 x 4.38 in 13.67 x 5.05 x 11.13 cm |
| LED Indicators | Configuration (CFG), Error (ERR), Power (PWR), Hardware Fault (FLT), Network Status (NS), EtherNet/IP™ Class I or Class III Connection Status (EtherNet/IP Only) Module Status (MS), Module Configuration Status (EtherNet/IP Only) Ethernet Communication Port Link/Activity, and 100 mbit Serial Communication Port Receive (RX) and Transmit (TX) |
| Ethernet Port | 10/100Mbit full- and half-duplex RJ45 Connector Electrical Isolation 1500 Vrms at 50 to 60 Hz for 60 seconds, applied as specified in section 5.3.2 of IEC 60950: 1991 Ethernet Broadcast Storm Resiliency is less than or equal to 5000 [ARP] frames-per-second and less than or equal to 5 minutes duration |
| 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. |
| Shipped With Each Unit | 2.5 mm screwdriver J180 Power Connector (1) RJ45-DB9M Serial Adapter Cable (serial protocol) (1) DB9 to Screw Terminal Adapter (serial protocol) |
| Enclosure Rating | IP20, NEMA/UL Open Type, DIN Rail |

Agency Approvals and Certifications

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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

Ordering Information

To order this product, please use the following:

EtherNet/IP™ to Modbus® Serial Communication Gateway

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