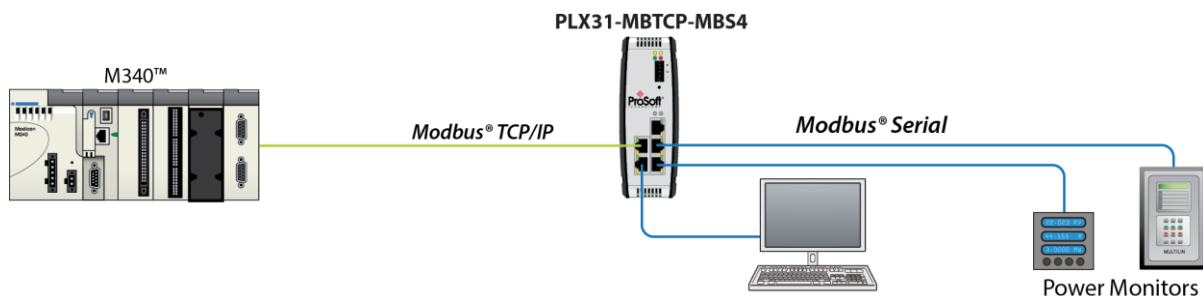


Modbus[®] TCP/IP to Modbus[®] Serial Four-Port Gateway PLX31-MBTCP-MBS4

ProSoft Technology's Modbus[®] TCP/IP to Modbus[®] Serial four-port Serial gateway allows high-speed bi-directional data transfers between Modbus[®] TCP/IP-enabled PACs and Modbus[®] Serial devices. Modbus[®] Serial devices are widely used in nearly every industry and include SCADA systems and Power Monitors. Four Serial ports allow for connectivity of up to 400 Modbus[®] Serial devices, reducing the amount of gateways required for your application.

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



Features

- ◆ Gateway includes a SD card slot (SD card optional) for storing configuration files. This can be used for disaster recovery.
- ◆ Four Serial ports allow for connectivity of up to 400 Modbus[®] Serial devices, reducing the amount of gateways required for your application.
- ◆ Supports up to 20 simultaneous client & server connections, allowing for faster communication between devices such as HMIs, SCADA systems, power monitors and flow computers, among others.
- ◆ ProSoft Discovery Service: This utility allows your PC to see the gateway and change its default IP address without being on the same subnet as the module.
- ◆ 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

Modbus® TCP/IP Specifications

| Specification | Description | |
|---------------------------------|--|---|
| Supported Modbus Function Codes | 1: Read Coil Status | 15: Force (Write) Multiple Coils |
| | 2: Read Input Status | 16: Preset (Write) Multiple Holding Registers |
| | 3: Read Holding Registers | Holding Registers |
| | 4: Read Input Registers | 22: Mask Write Holding Register (Slave Only) |
| | 5: Force (Write) Single Coil | 23: Read/Write Holding Registers (Slave Only) |
| | 6: Preset (Write) Single Holding Register | |
| Supported Clients | 10 | |
| Supported Servers | MBAP: 5 | |
| | Encapsulated: 5 | |
| Command List | Up to 160 fully configurable Client commands | |
| 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 available | |

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 | 15: Force (Write) Multiple Coils |
| | 2: Read Input Status | 16: Preset (Write) Multiple Holding Registers |
| | 3: Read Holding Registers | Holding Registers |
| | 4: Read Input Registers | 22: Mask Write Holding Register (Slave Only) |
| | 5: Force (Write) Single Coil | 23: Read/Write Holding Registers (Slave Only) |
| | 6: Preset (Write) Single Holding Register | |
| 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 per active Modbus Master port. | |
| 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 | 4 |
| Serial Port Isolation | 2500 Vrms port signal isolation per UL 1577 serial port communication signal uses RF (Radio Frequency) modulation signal as isolation media, IC chip model is SiliconLabs Si844x (Si8440, Si8441, Si8442) |
| Shipped With Each Unit | 2.5 mm screwdriver J180 Power Connector (4) RJ45-DB9M Serial Adapter Cable (serial protocol) (4) DB9 to Screw Terminal Adapter (serial protocol) |

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:

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PLX31-MBTCP-MBS4

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