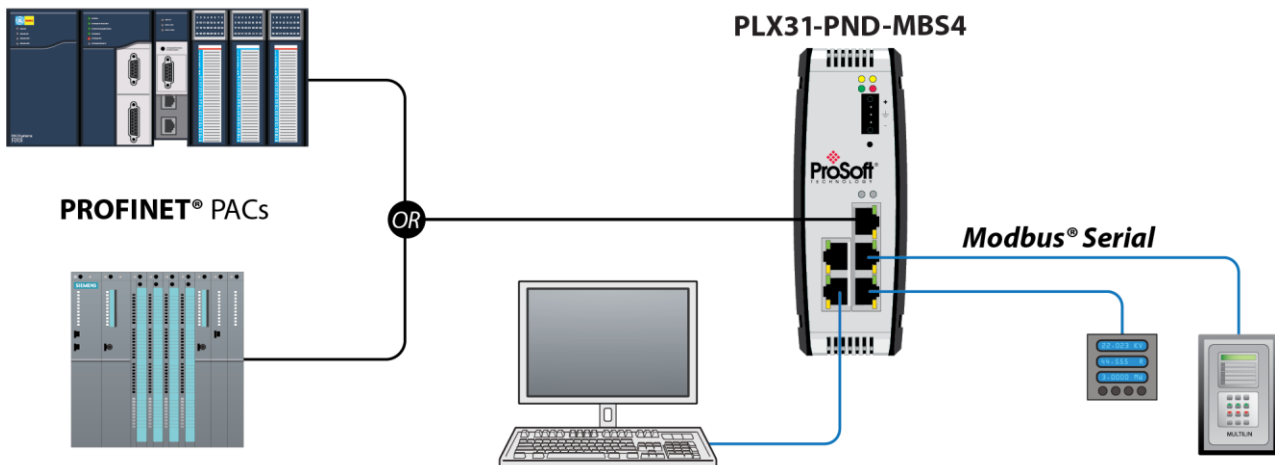


DATASHEET

PROFINET® Device to Modbus® Serial Gateway with four serial ports PLX31-PND-MBS4

The PROFINET device to Modbus Serial gateway offers bi-directional data transfers between a PROFINET Controller and Modbus serial (RTU and ASCII) devices. Each Modbus serial port can be configured as either a Modbus master or slave. The PROFINET interface operates as a PROFINET device (slave).

The PLX31-PND-MBS4 gateway is a stand-alone DIN-rail mounted unit that provides Ethernet connectivity for network communications, remote configuration, and diagnostics. The onboard SD Card slot (SD card optional) is used for storing configuration files that can be used for recovery, transferring the configuration to another gateway, or general configuration backup.



Features

- ◆ PROFINET v2 certification with PROFINET class A compliance
- ◆ Field-proven with thousands of Modbus serial devices, and multiple PROFINET controllers from multiple vendors
- ◆ Remotely view and diagnose Modbus and PROFINET networks
- ◆ Remote configuration via the free, intuitive, ProSoft Configuration Builder (PCB) software
- ◆ Each Modbus serial port supports master or slave mode

PROFINET Specifications

| Specification | Description |
|-------------------|--|
| Driver Type | Class A Device |
| PROFINET I/O Data | 1440 bytes IN, 1440 bytes OUT |
| Exchange Types | Cyclic Real-time (RT) and Acyclic Data |

Modbus Serial Specifications

| | |
|--|--|
| 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 Modes: RTU with CRC-16 or ASCII with LRC error checking Floating Point Data supported, support for Enron and Daniel |
| Polling of Command List | Configurable polling of command list, including continuous and on change of data |
| Status Data | Error codes available on an individual command basis. In addition, a slave status list is maintained per serial port |
| Node Address | 1 to 247 (software selectable) |
| RS Interface | RS232, RS422, and RS485 |

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) |
| Relative Humidity | 5% to 95% RH with no condensation |
| 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 |
| Dimensions | 5.38 x 1.99 x 4.38 in, 13.67 x 5.05 x 11.13 cm (H x W x D) |
| LED Indicators | For configuration and protocol status errors |
| Ethernet Port | *10/100Mbit 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 - less than or equal to 5000 [ARP] frames-per-second and less than or equal to 5 minutes duration |
| Number of Serial Ports | 4 |
| Shipped With Each Unit | 2.5 mm screwdriver, ProSoft Solutions DVD, J180 Power Connector, 5' straight-through Ethernet cable, DB9 to Screw Terminal Adapter |

Agency Approvals and Certifications

| |
|-----------------------|
| CE Mark |
| UL/cUL Class I Div II |
| ATEX Zone 2 |
| CB Safety |



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Ordering Information

To order this product, please use the following:

PROFINET Device to Modbus Serial Gateway with four ports

PLX31-PND-MBS4

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