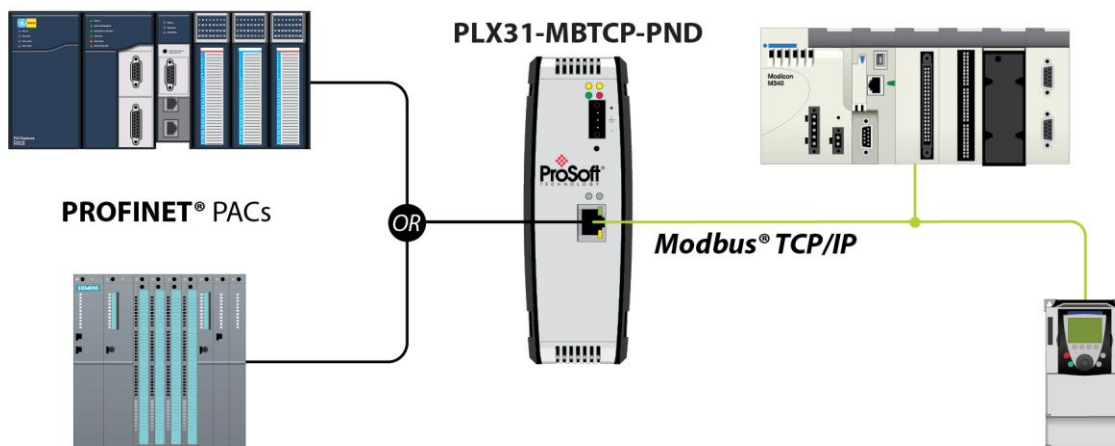# DATASHEET

Modbus® TCP/IP to PROFINET® Device Gateway
PLX31-MBTCP-PND

The Modbus TCP/IP to PROFINET device gateway offers bi-directional data transfer between a PROFINET Controller and Modbus TCP/IP networks. The Modbus TCP/IP driver uses multiple clients and servers for faster data throughput. The PROFINET driver operates as a PROFINET device (slave).

The PLX31-MBTCP-PND gateways are stand-alone DIN-rail mounted units that provide one Ethernet port for 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-tested with multiple Modbus TCP/IP devices, and PROFINET controllers from multiple vendors
- Remotely view and diagnose Modbus TCP/IP and PROFINET networks
- Remote configuration via the free, intuitive, ProSoft Configuration Builder (PCB) software
- Multiple, simultaneous Modbus TCP/IP client and/or server connections to allow for increased throughput

Modbus TCP/IP Specifications

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 (server only) 23: Read/Write Holding Registers (server only)
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	

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

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 (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) Status *Power (PWR) *Hardware Fault (FLT) *Network Status (NS) Modbus TCP/IP Class I or Class III - Connection Status (Modbus TCP/IP only) *Module Status (MS) Module Configuration Status (Modbus TCP/IP only) *Ethernet Communication Port Link/Activity and 100mbit
Ethernet Port	*10/100Mbit RJ45 Connector Electrical Isolation 1500 Vrms at 50 Hz 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
Shipped With Each Unit	2.5 mm screwdriver, ProSoft Solutions DVD, J180 Power Connector, 5' straight-through Ethernet cable

Agency Approvals and Certifications

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