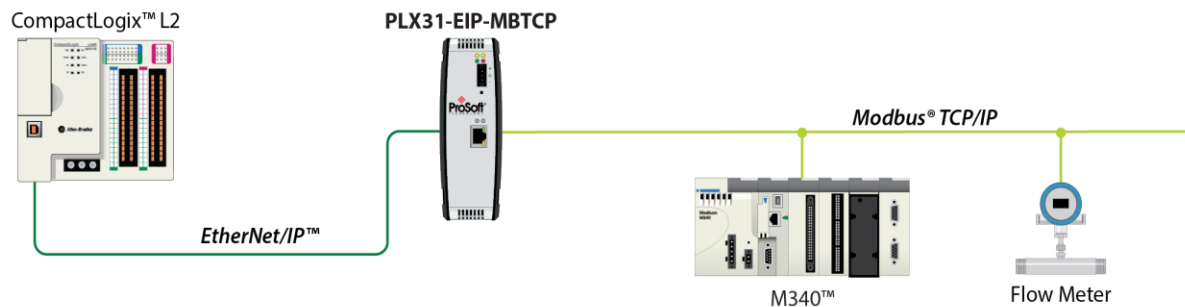# DATASHEET

EtherNet/IP™ to Modbus® TCP/IP Communication Gateway
PLX31-EIP-MBTCP

ProSoft Technology's EtherNet/IP™ to Modbus® TCP/IP communication gateway allows high-speed bi-directional data transfers between EtherNet/IP™ enabled controllers or devices and Modbus® TCP/IP controllers or devices. Our Modbus® TCP/IP driver features multiple client and server functionality, for faster data transmission.

In addition, the gateway includes several features, including data prioritization, 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, CMPLX, 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® TCP/IP 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	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)
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	

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
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
Shipped With Each Unit	2.5 mm screwdriver J180 Power Connector

Agency Approvals and Certifications

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

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® TCP/IP Communication Gateway

PLX31-EIP-MBTCP

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft Technology distributors near you, go to:
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