

PROFIBUS PA Gateway A-PAL/B

The PROFIBUS PA gateway allows the user to interface PROFIBUS PA DPV0/DPV1 to either EtherNet/IP™ or Modbus® devices.

When configured as a Master, the PA Link can exchange up to 2 kilobytes of PROFIBUS PA device and status data.

The PA Link has two Ethernet ports for a Linear or Ring (Device Level Ring – DLR) Ethernet topology. The Ethernet ports can also be configured for port mirroring, allowing for better fault analysis.

The PA Link can synchronize to an NTP Server allowing for automatic time synchronization. It also supports an onboard non-volatile event log for improved fault finding. The PA Link has a built-in Power Conditioner which can supply up to 420 mA. The power conditioner is protected against a configurable overcurrent limit. The module also has a configurable built-in Fieldbus terminator.

The PA Link provides a range of statistics and tools to provide a detailed diagnostic overview of each PA Link, which speeds-up fault finding. The Slate Configuration Utility allows the user to perform a PROFIBUS PA packet capture of the running Fieldbus which can be used to analyze the bus behavior and packets received. The PA Link also provides global and device specific statistics.



Features

- ❖ Direct link from PROFIBUS PA to **EtherNet/IP** or **Modbus TCP/IP**
- ❖ Exchange up to **2 kilobytes** of PROFIBUS PA device and status data
- ❖ Support for up to 32 PROFIBUS PA slave devices
- ❖ Embedded 2 port Ethernet switch – **DLR** capable
- ❖ Built-in **Isolated PA Power Conditioner** – Max. 420 mA (Temperature limited)
- ❖ Configurable bus **Current Protection** (Trip)
- ❖ Built-in configurable **Bus Terminator**
- ❖ Supports PROFIBUS PA Master **Redundancy** (Active / Standby)
- ❖ FDT Asset Management - DTM Available

Configuration

- ❖ The Slate Configuration Utility software is used for configuration and troubleshooting of the module. The stand-alone configuration utility allows users to define the setup and configuration of the PROFIBUS PA module, connections with controllers and devices.
- ❖ The configuration utility can be downloaded from www.prosoft-technology.com

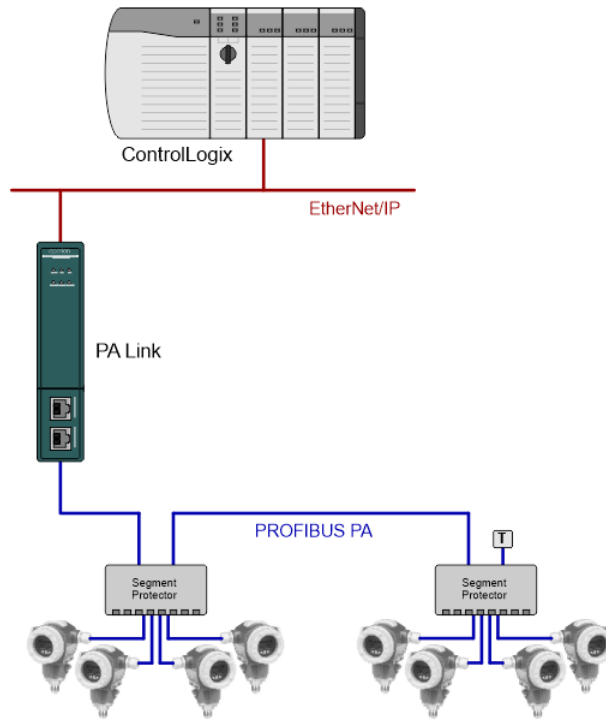


Figure 1 - Typical architecture of PA Link PROFIBUS Master to EtherNet/IP device

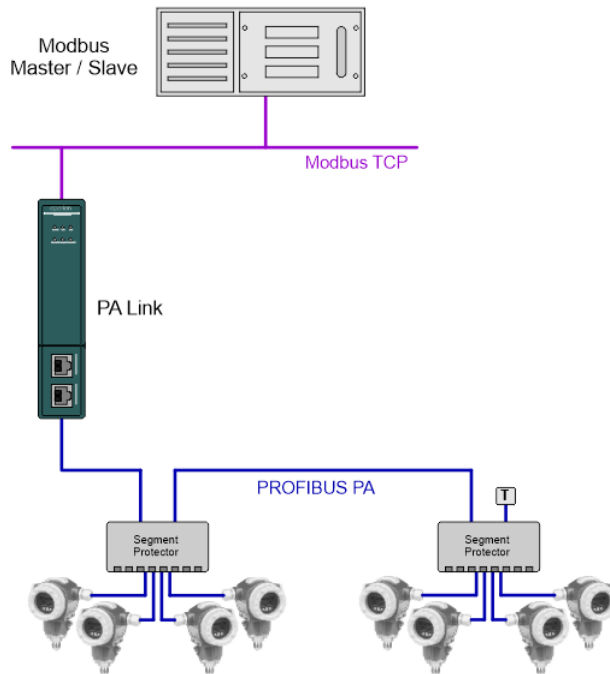


Figure 2 – Typical architecture of PA Link PROFIBUS Master to Modbus TCP/IP device

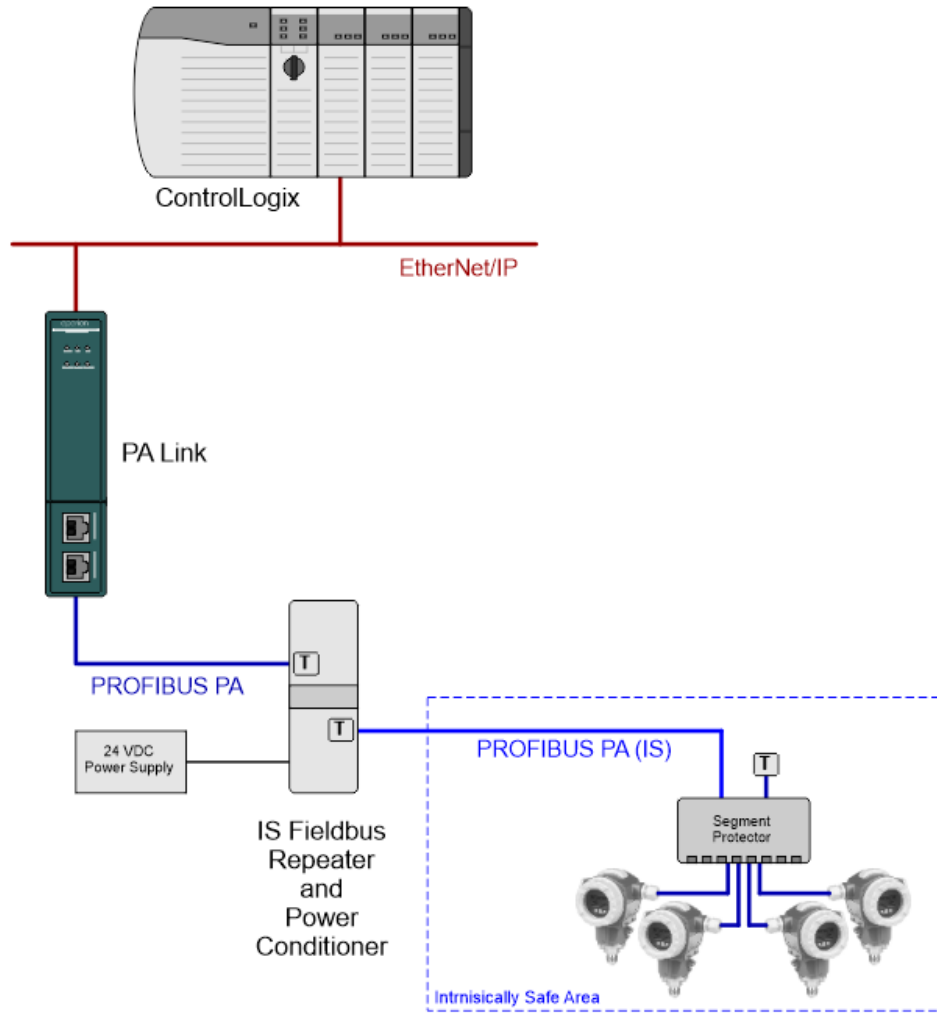


Figure 3 – PA Link PROFIBUS Master with an External Intrinsically Safe Repeater

Specifications

EtherNet/IP Network

Specification	Rating
Connector	RJ45
Conductors	CAT5 STP/UTP
ARP Connections	Max 20
TCP Connections	Max 20
CIP Connections	Max 10
Communication Rate	10/100 Mbps
Duplex Mode	Full / Half
Auto-MDIX Support	Yes
Embedded Switch	Yes, 2x Ethernet ports

PROFIBUS PA

Specification	Rating
Connector	3-way terminal
PA Master Mode Support	DPV0 Data Exchange DPV1 Class 1 Messaging DPV1 Class 2 Messaging DPV1 Alarming
Maximum Slave Devices	32
Isolated	Yes
Internal Power Conditioner Voltage	Max: 23.0 V DC Min: 19.0 V DC
Internal Power Conditioner Current	Max: 420 mA – Max. Ambient Temperature ≤50 °C Max: 320 mA – Max. Ambient Temperature ≤60 °C Max: 220 mA – Max. Ambient Temperature ≤70 °C Note: Includes 20mA for internal MAU
Internal Termination	100 Ω - Software Enabled

Hardware

Specification	Rating
Power Supply	Input: 22 to 26 VDC, (580 mA @ 24VDC)
Power Consumption	Max: 135 mA @ 24V => 3.3 W (No Bus Load) Max: 580 mA @ 24V => 14.0 W (Full Bus Load – 420 mA)
Dimensions (H x W x D)	149.0 x 34.0 x 116.0 mm
Connector	5-way terminal, 5.08 mm pitch.
Conductors	24 to 18 AWG
Enclosure Rating	IP20, NEMA/UL Open Type
Temperature	-20 to 70 °C
Humidity	0 to 95% RH, non-condensing
Earth Connection	Yes, terminal based
Emissions	IEC 61000-6-4
ESD Immunity	EN 61000-4-2
Radiated RF Immunity	IEC 61000-4-3
EFT/B Immunity	IEC 61000-4-4
Surge Immunity	IEC 61000-4-5
Conducted RF Immunity	IEC 61000-4-6

Agency Approvals & Certifications

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



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Connects™

Ordering Information

To order this product, please use the following:

PROFIBUS PA Gateway

A-PAL/B

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft Technology distributors near you, go to: www.prosoft-technology.com and select *Where to Buy* from the menu.

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