



# aparian A-PAL-B PA Link Module User Guide

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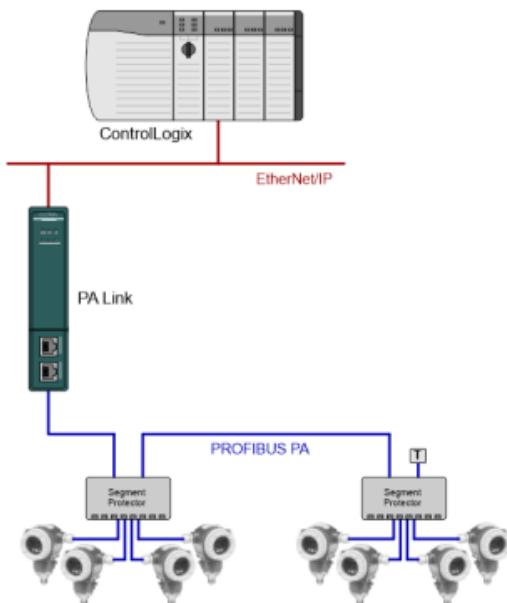
## aparian A-PAL-B PA Link Module User Guide



**NOTE:** Before installing, configuring, operating, or maintaining Aparian products, please review this information and the information located on [www.aparian.com](http://www.aparian.com) for the latest software, documentation, and installation files specific to your Aparian product.

### INTRODUCTION

The PA Link module is a PROFIBUS PA Master capable of interfacing via EtherNet/IP to a Rockwell Logix controller (ControlLogix or CompactLogix) or via Modbus-TCP to a Modbus Master or Slave device.



### REQUIRED SOFTWARE

The PA Link/B module requires Aparian Slate software to setup and configure. The software installation can be found at [www.aparian.com/software/slate](http://www.aparian.com/software/slate).

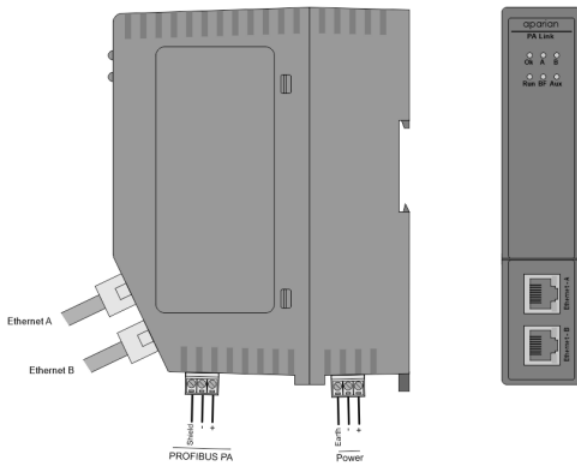
## MODULE INSTALLATION

The module has two Ethernet ports located at the lower front of the module.

There are also two ports at the bottom of the module for power and PROFIBUS PA.

The power port uses a three-way connector which is used for the DC power supply positive and negative (or ground) voltage as well as the earth connection.

The PROFIBUS PA port uses a three-way connector for PA bus positive, negative and shield.



LED	Description
Ok	The module LED will provide information regarding the system-level operation of the module. If the LED is red, then the module is not operating correctly. For example, if the module application firmware has been

	<p>corrupted or there is a hardware fault the module will have a red Module LED.</p> <p>If the LED is green (flashing), then the module has booted and is running correctly <b>with out</b> any application configuration loaded.</p> <p>If the LED is green (solid), then the module has booted and is running correctly <b>with</b> application configuration loaded.</p>
A / B	<p>The Ethernet LED will light up when an Ethernet link has been detected (by plugging in a connected Ethernet cable). The LED will flash every time traffic was detected.</p> <p>This module has two Ethernet ports A and B. Each LEDs represents each specific port.</p>
Run	<p>This LED will indicate the PROFIBUS <b>operating mode</b>. <u>Solid Red</u> – The PROFIBUS network is in STOP mode. <u>Flashing Green</u> – The PROFIBUS network is in CLEAR mode. <u>Solid Green</u> – The PROFIBUS network is in OPERATE mode.</p> <p><u>Off</u> – The PROFIBUS network is OFFLINE.</p>
BF	<p>This LED indicates the <b>status</b> of the PROFIBUS network <u>Solid Red</u> – There are bus communication errors <u>Flashing Red</u> – There are field device errors</p> <p><u>Flashing Green</u> – The module is currently in Standby (redundancy)</p> <p><u>Off</u> – There are no bus communication or device errors</p>
Aux	<p>The activity LED is used for the activity on the Primary Interface (e.g. EtherNet/IP or Modbus TCP). Thus, every time a valid packet is received from the Primary Interface the LED will toggle green. The LED will toggle red if a corrupted packet was received.</p>

## INTERNAL POWER CONDITIONER

The module supports an internal PROFIBUS PA Power Conditioner capable of delivering 420 mA. It can be enabled / disabled in the software configuration.

## INTERNAL PA TERMINATION

All PROFIBUS PA networks require suitable AC 100  $\Omega$  terminators at the extremities (start and end point) of the communication conductor. The internal PA terminator can be enabled / disabled in the software configuration.

## ELECTRICAL AND ENVIRONMENTAL

Specification	Rating
Power requirements	Input: 22 – 26 V DC,
Power consumption	Maximum : 135 mA @ 24V => 3.3 W (No Bus Load) Maximum : 580 mA @ 24V => 14.0 W (Full Bus Load – 420 mA)
PA Power Conditioner	Maximum: 23.0 V DC Minimum: 19.0 V DC
Temperature	-20 – 70 °C (Power Conditioner Load <= 220 mA) -20 – 60 °C (Power Conditioner Load <= 320 mA) -20 – 50 °C (Power Conditioner Load <= 420 mA)

## STUDIO 5000 CONFIGURATION

For Logix versions 20 and beyond, the modules can be added using the EDS Add-On-Profile (AOP). For older versions (19 and below), the module must be added using a Generic Module Profile.



**For professional users in the European Union**

If you wish to discard electrical and electronic equipment (EEE), please contact your dealer or supplier for further information.



**WARNING** – Cancer and reproductive harm – [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

## ADDITIONAL INFORMATION

The following resources contain additional information that can assist the user with the module installation and operation

Resource	Link
Slate Installation	<a href="http://www.aparian.com/software/slate">http://www.aparian.com/software/slate</a>
PA Link User Manual PA Link Datasheet	<a href="http://www.aparian.com/products/palinkb">http://www.aparian.com/products/palinkb</a>
Ethernet wiring standard	<a href="http://www.cisco.com/c/en/us/td/docs/video/cds/cde/cde205_220_420/installation/guide/cde205_220_420_hig/Connectors.html">www.cisco.com/c/en/us/td/docs/video/cds/cde/cde205_220_420/installation/guide/cde205_220_420_hig/Connectors.html</a>
CIP Routing	The CIP Networks Library, Volume 1, Appendix C:Data Management
Modbus	<a href="http://www.modbus.org">http://www.modbus.org</a>

## SUPPORT

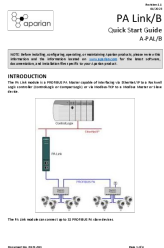
Technical support will be provided via the Web (in the form of user manuals, FAQ, datasheets etc.) to assist with installation, operation, and diagnostics.

For additional support the user can use either of the following:

Contact Us web link	<a href="https://www.prosoft-technology.com/Services-Support/Customer-Support">https://www.prosoft-technology.com/Services-Support/Customer-Support</a>
Support email	<a href="mailto:support@prosoft-technology.com">support@prosoft-technology.com</a>

***Read More About This Manual & Download PDF:***

**Documents / Resources**

	<p><a href="#">Aparian A-PAL-B PA Link Module</a> [pdf] User Guide</p> <p>A-PAL-B PA Link Module, A-PAL-B, PA Link Module, Link Module, Module</p>
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## References

- [technology.com](#)
- [Home](#)
- [Home](#)
- [Profibus PA Link](#)
- [Slate Configuration Software](#)
- [M The Modbus Organization](#)
- [M The Modbus Organization](#)
- [p65warnings.ca.gov](#)
- [p65warnings.ca.gov/](#)
- [Regional Technical Support / Services & Support / Homepage - ProSoft Technology, Inc.](#)