DeviceNet Router

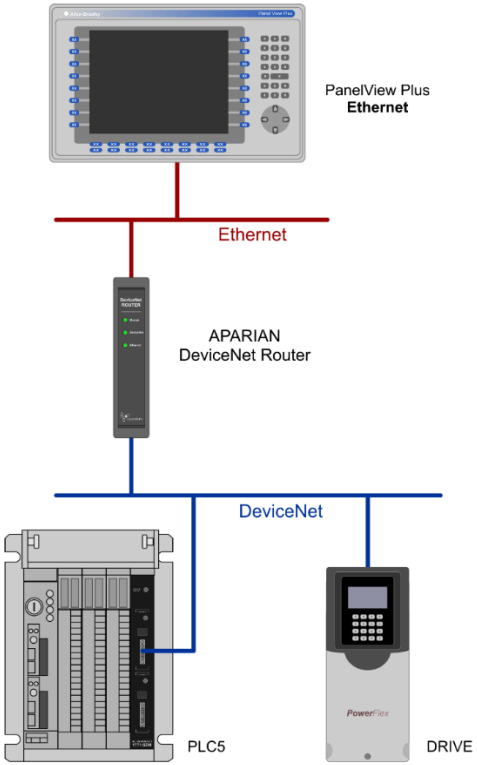
Quick Start Guide

A-DNTR

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

INTRODUCTION

The DeviceNet Router provides intelligent data routing between DeviceNet and EtherNet/IP or Ethernet PCCC (CSP). The later allows the module to emulate a PLC5 providing a legacy interface for PanelViews and other devices. The DeviceNet Router can also be used in Scheduled Mode allowing the user to extract parameters from various DeviceNet devices and write them directly into Logix tags. The DeviceNet Router will also apply the necessary scaling to the values per EDS file or custom user configuration.



REQUIRED SOFTWARE

The DeviceNet Router requires Aparian Slate software to setup and configure. The software installation can be found at www.aparian.com/software/slate.

MODULE INSTALLATION

The module has two ports at the bottom of the enclosure as shown in the figure below. The ports are used for Ethernet and DeviceNet. The 5-way DeviceNet connector also provides power to the module. The Ethernet cable must be wired according to industry standards which can be found in the additional information section of this document.



LED	Description
Ok	The module's Ok LED will provide information regarding the system-level operation of the module. Thus if the LED is red then the module is not operating correctly. For example if the module application firmware has been corrupted or there is a hardware fault the module will have a red Module LED. If the LED is green then the module has booted and is running correctly.
Eth	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.
DNet	The DNet LED shows the activity on the DeviceNet network. Green indicating valid packets, and red indicating corrupt packets.

ELECTRICAL AND ENVIRONMENTAL

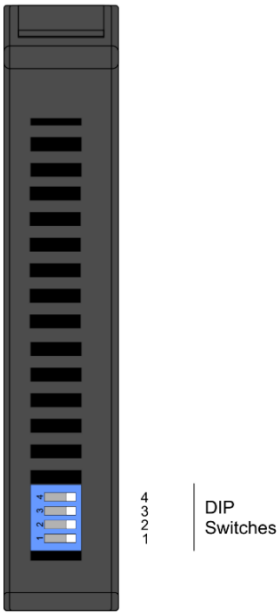
Specification	Rating
Power requirements	Input: 10 – 28V DC
Power consumption	1.7 W (Max.) Current: 70 mA @ 24 V
Temperature	-20 – 70 °C

NETWORK SETUP

1. Launch the Aparian Slate Configuration Software. Select the *DHCP Server* under the *Tools* menu. DHCP is enabled as factory default.
2. Click the *Assign* button and set the IP Address. Row turns green if successful.
3. Additional configuration can be set using the *Target Browser* also under the *Tools* menu. Right click on the module in the Target Browser a select *Port Configuration*.

DIP SWITCHES AND CAN BUS TERMINATION

The module provides four DIP switches at the top of the enclosure as shown in the top view figure below.



DIP Switch	Description
DIP Switch 1	Used to force the module into "Safe Mode". When in "Safe Mode" the module will not load the application firmware and will wait for new firmware to be downloaded. This should only be used in the rare occasion when a firmware update was interrupted at a critical stage.
DIP Switch 2	This will force the module into DHCP mode which is useful when the user has forgotten the IP address of the module.
DIP Switch 3	Reserved
DIP Switch 4	Applies the 120Ω terminating resistor across the CAN network (switched between Can-H and Can-L). **NOTE: When the module is at the start or the end of the DeviceNet network the terminator must be switched on.**

NORTH AMERICAN HAZARDOUS LOCATION APPROVAL

SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS A, B, C AND D HAZARDOUS LOCATIONS, OR NONHAZARDOUS LOCATIONS ONLY.

WARNING - EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT WHILE THE CIRCUIT IS LIVE OR UNLESS THE AREA IS KNOW TO BE FREE OF IGNITABLE CONCENTRATIONS.

WARNING - EXPLOSION HAZARD - SUBSTITUTION OF ANY COMPONENT MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.



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

ADDITIONAL INFORMATION

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

Resource	Link
Slate Installation	http://www.aparian.com/software/slate
DeviceNet Router User Manual DeviceNet Router Datasheet Example Code & UDTs	http://www.aparian.com/products/devicenetrouter
Ethernet wiring standard	www.cisco.com/c/en/us/td/docs/video/cds/cde/cde205_220_420/installation/guide/cde205_220_420_hig/Connectors.html
CIP Routing	The CIP Networks Library, Volume 1, Appendix C:Data Management
DeviceNet	http://www.odva.org

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	https://www.prosoft-technology.com/Services-Support/Customer-Support
Support email	support@prosoft-technology.com