DATASHEET

DeviceNet Router
A-DNTR

The DeviceNet Router provides a powerful and easy to configure solution to exchange data between DeviceNet™ devices and a Logix controller or PanelView via EtherNet/IP™. The module is able to asynchronously exchange data between a DeviceNet polling master (scanner) and an Ethernet PCCC device. Produced and consumed data sizes are independently configurable from 0 to 128 bytes each.

The consumed (DeviceNet) data can then be mapped to a PLC5 type address file, e.g. N33, and then read by an Ethernet device e.g. a PanelView. Similarly, the produced data (DeviceNet) can also be mapped to a PLC5 type address file, to which an Ethernet device could write. The Router supports transferring parameters from a DeviceNet device directly to Logix tags. The scaling of the parameter values will either be extracted from the EDS file imported or can be manually updated by the user. The module also provides a range of statistics and an on-board DeviceNet traffic analyzer to assist with fault finding. A built-in webserver provides detailed diagnostics of system configuration and operation, including the display of DeviceNet operation and communication statistics, without the need for any additional software.

Features

❖ DeviceNet to Ethernet Interface

❖ PCCC or EtherNet/IP protocols

❖ PLC5 Emulation Mode

❖ Direct-to-Tag Technology

❖ Advanced Diagnostics, including packet capture

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 DeviceNet Router module, connections with controllers and devices.

❖ The configuration utility can be downloaded from www.prosoft-technology.com

In this example, the DeviceNet Router acts as a DeviceNet slave device. The DeviceNet Router provides the PanelView data access to the PLC5's DeviceNet scanner module (SDN).
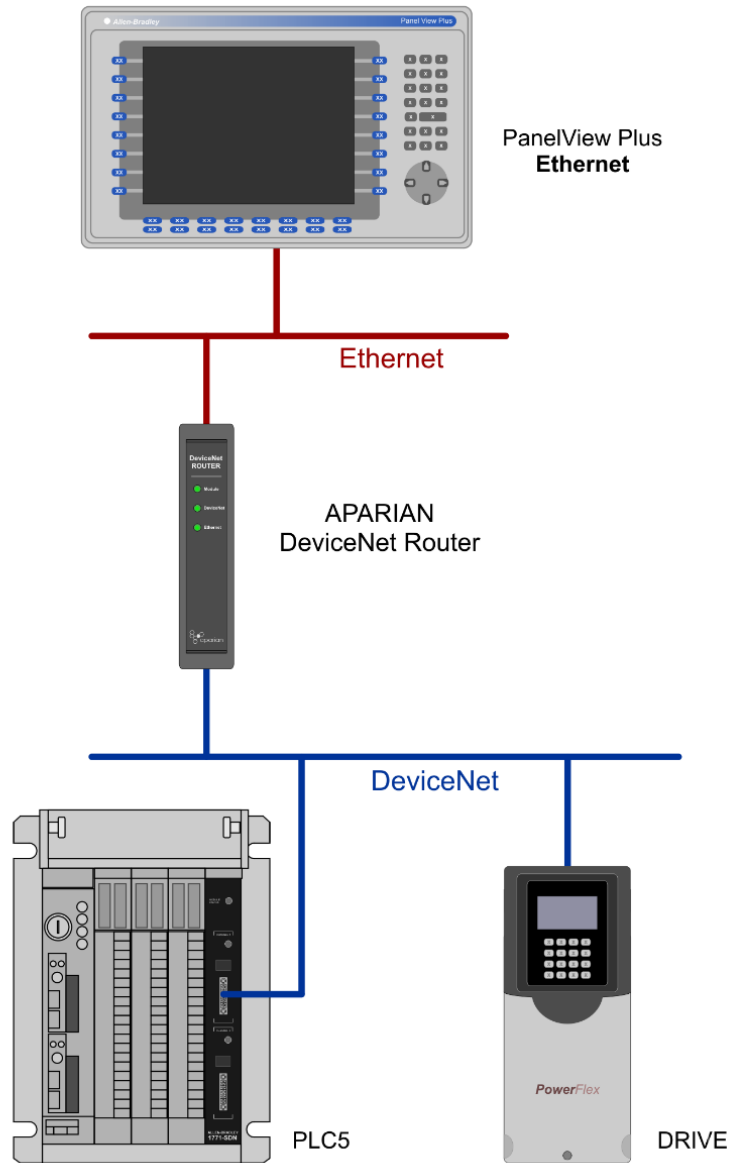
Figure 1 - Example of a typical network setup in PLC Emulation mode

In the next example, the DeviceNet Router is used to extract parameters from various DeviceNet devices (running in conjunction with the DeviceNet Scanner – e.g. DNB).
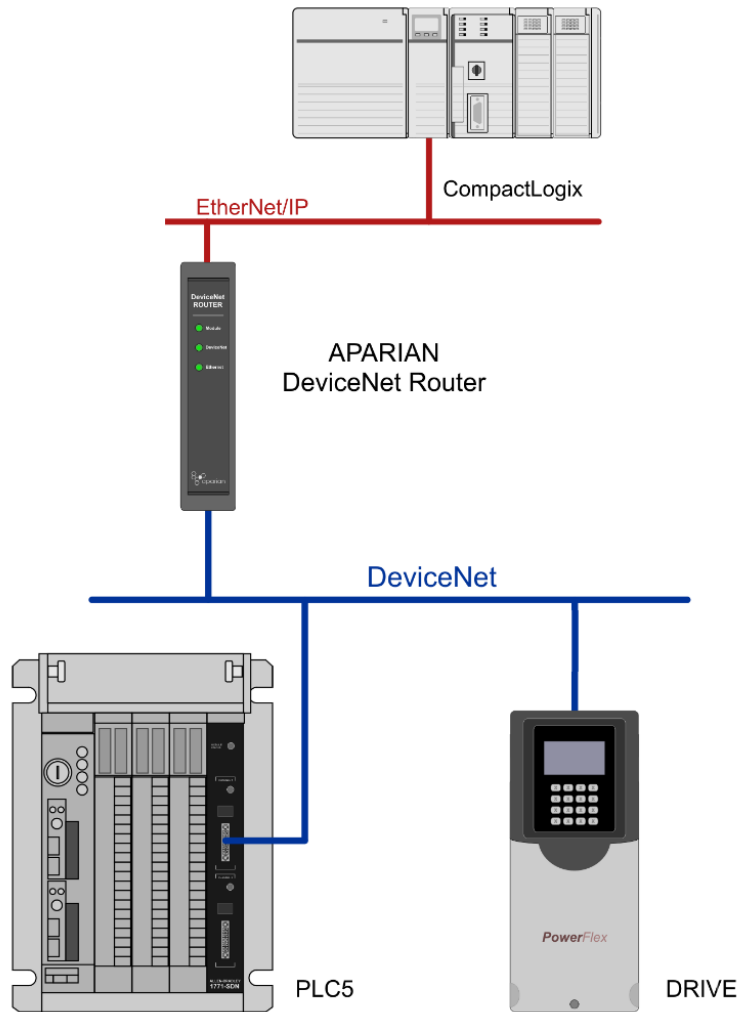
Figure 2 - Example of a typical network setup in Scheduled Parameter Mode

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

DeviceNet Network

Specification	Rating
Connector	5-way terminal, 5.08 mm pitch.
Conductors	12 to 30 AWG
Baud Rate	125k, 250k, 500k
IO Messaging	Polled Change of State (COS)
Unconnected Message Manager (UCMM)	Yes
Max Explicit Connections	5

PCCC Network

Specification	Rating
Max PCCC Connections	10
Max PCCC Payload	1000 bytes

Hardware

Specification	Rating
Power Supply	Input: 10 to 28 VDC, (70 mA @ 24VDC)
Power Consumption	1.7 W
Dimensions (H x W x D)	101.0 x 22.5 x 120.0 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	IEC61000-6-4
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