# DATASHEET

## CANopen
### A-CANOR

The CANopen® Router provides intelligent data routing between either EtherNet/IP™ or Modbus TCP/IP® and the CANopen bus network. This allows the user to integrate CANopen devices into a Rockwell® Logix platform (e.g. ControlLogix® or CompactLogix™) or any Modbus Master device with minimal effort.

The module can be configured to be either a Master or Slave allowing the user to not only integrate CANopen devices into a Logix or Modbus system, but to also allow the user to use Logix or Modbus devices in an existing CANopen network (by using the CANopen Router in Slave mode). In a Logix system the module uses Direct-To-Tag technology allowing CANopen devices to exchange data with a Logix controller without the need to write any ladder or application code in Studio 5000.

The module also provides a range of statistics to simplify the diagnostic process as well as a CANopen packet capture for remote diagnosis. A built-in webserver provides detailed diagnostics of system configuration and operation, including the display of CANopen operation and communication statistics, without the need for any additional software.

## Features

❖ Support for CANopen Master or Slave

❖ Support for EtherNet/IP or Modbus TCP/IP

❖ Supports up to 64 CANopen Slaves (when in Master mode)

❖ Support for up to 16 PDOs (receive and transmit) per CANopen Slave

❖ Direct-To-Tag technology for Logix controllers

❖ 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 CANopen Router module, connections with controllers and devices.

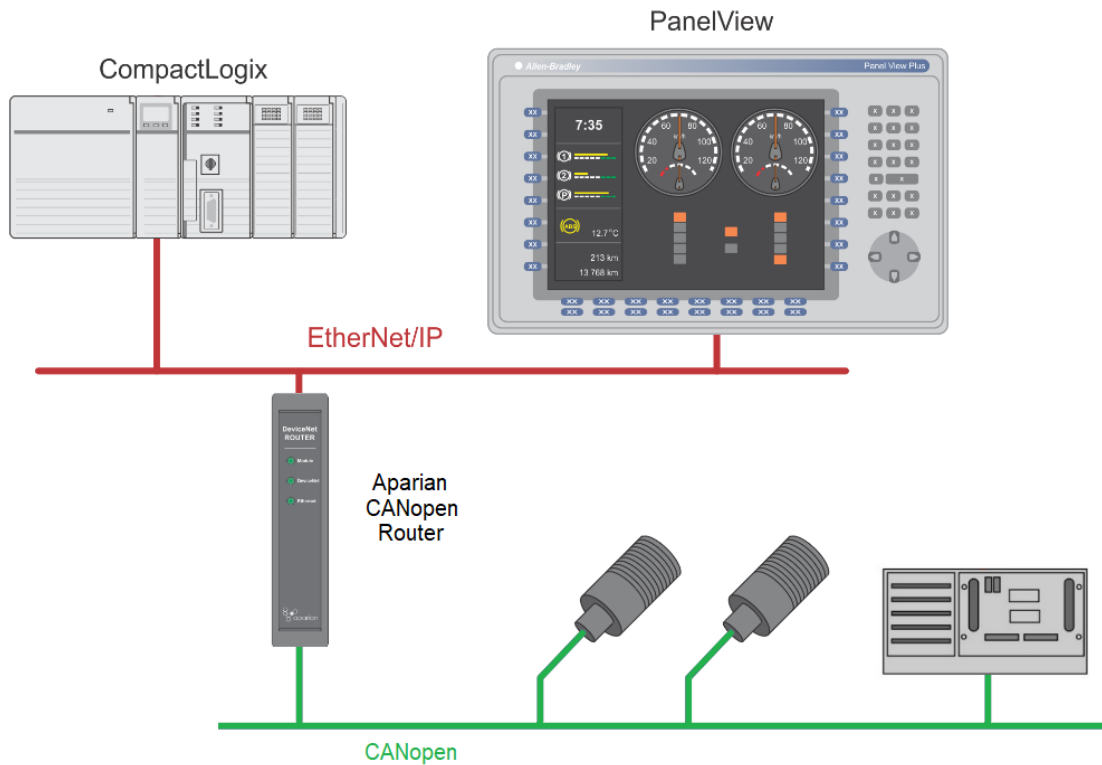❖ The configuration utility can be downloaded from www.prosoft-technology.com

**Figure 1 - Typical architecture using the CANopen Router**

The figure above provides an example of the typical network setup for connecting various CANopen Slaves to a Logix controller via the CANopen Router.

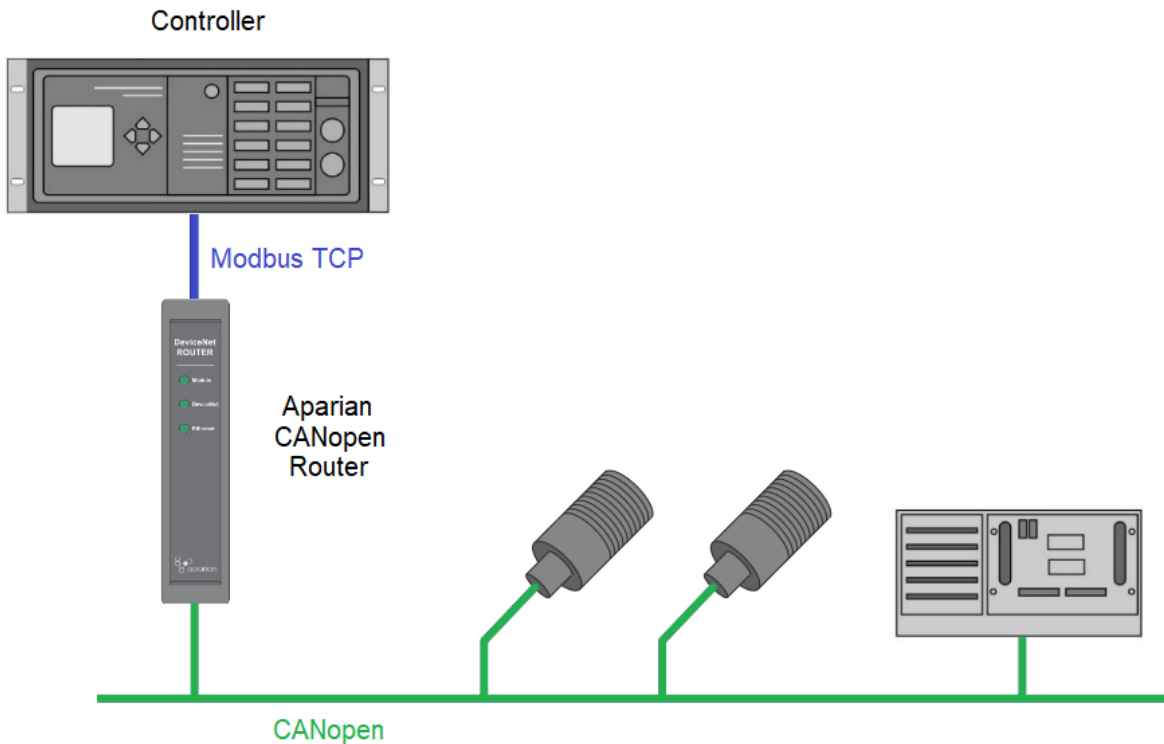The same applies for interfacing CANopen Slaves to a Controller using Modbus TCP/IP (as shown below).



**Figure 2 - Typical network setup for connecting CANopen Slaves to a Modbus Master**

The following examples illustrate how the CANopen Router can be used as a CANopen Slave to allow Modbus devices and Logix controllers to integrate into an existing CANopen network.

Below is a typical network when the user is planning to use a Modbus device on an existing CANopen network using the CANopen Router.
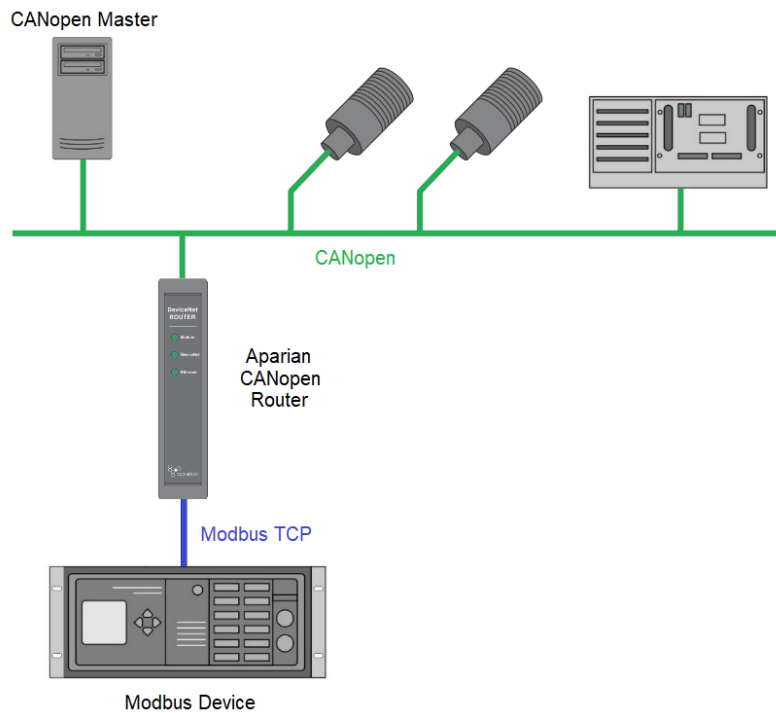


**Figure 3 – Modbus Device acting as a CANopen Slave via the CANopen Router**

Below is a typical network when the user is planning to use a Logix controller on an existing CANopen network using the CANopen Router.
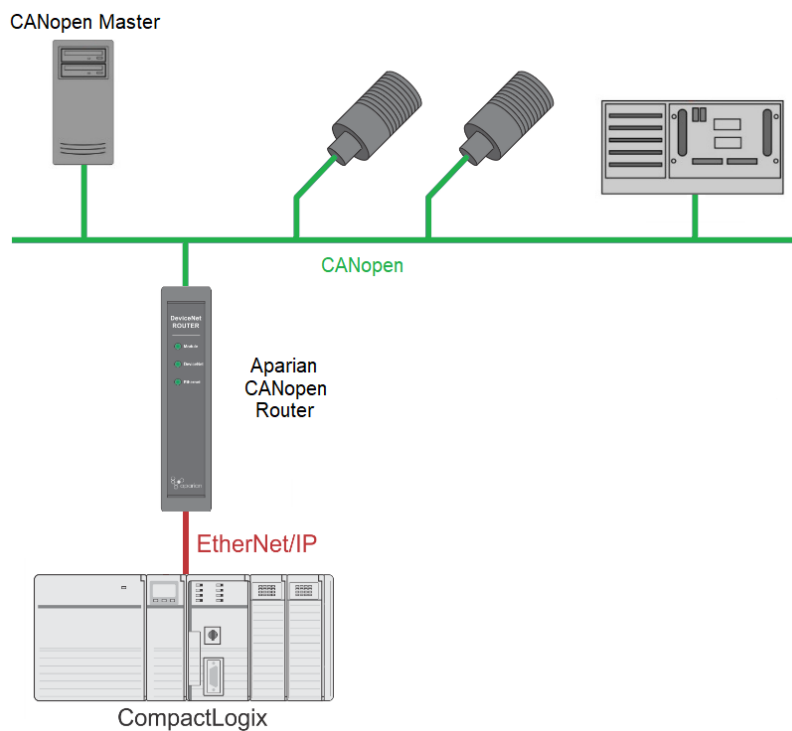


**Figure 4 – Logix Controller acting as a CANopen Slave via the CANopen Router**

# 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 |

## CANOpen Network

| Specification | Rating |
| --- | --- |
| Connector | 5-way terminal, 5.08 mm pitch. |
| Modes | Master, Slave |
| CANopen Slave Count | 64 |
| PDO Count per Device | 16 |
| Supported Baud Rates | 50k, 125k, 250k, 500k, 800k,1M |
| CiA 443 Support | Yes |
| NMT Messages | Operational Control (eg. Stopped, Pre-operational, Operational), SYNC, TIME, EMCY |

*Note: Although the CANopen Router supports the CiA443 objects, the CANopen interface is not fault-tolerant.

## 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 | 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