# Schneider Electric

Network Management Card 4 Modbus Documentation Addendum

Overview

This document details the wiring and configuration options for the Modbus RTU serial connection between a Modbus Controller and the AP9644 Network Management Card 4. For details on Modbus register settings and configuration, see the Modbus Register Map for your Galaxy device on the Schneider Electric website (**www.se.com/download**). Details of the Modbus standard can be found at **www.modbus.org**.

Modbus Wiring Diagrams

2-Wire Connection

Controller is responsible for bus biasing

4-Wire Connection

Controller is responsible for bus biasing
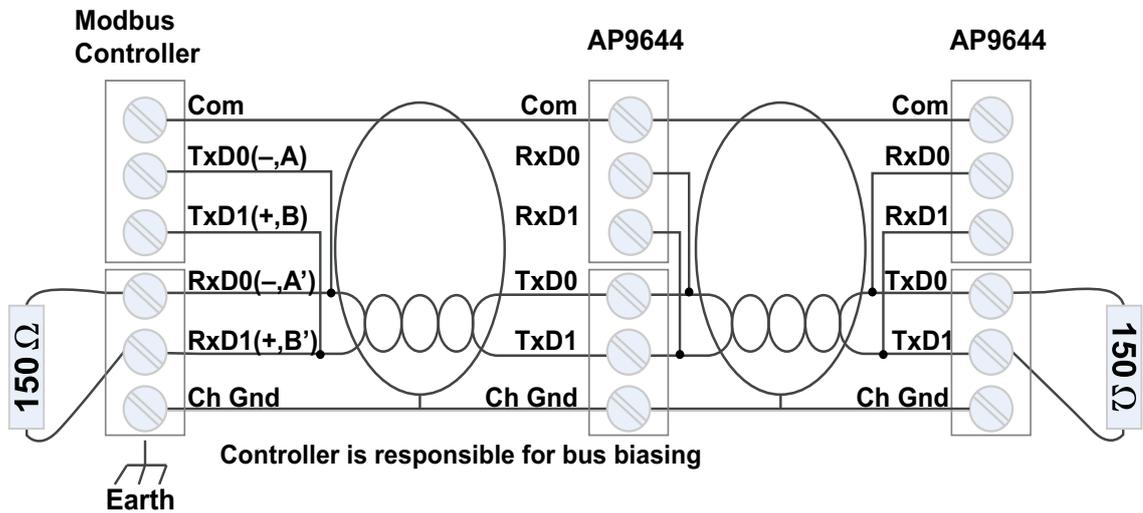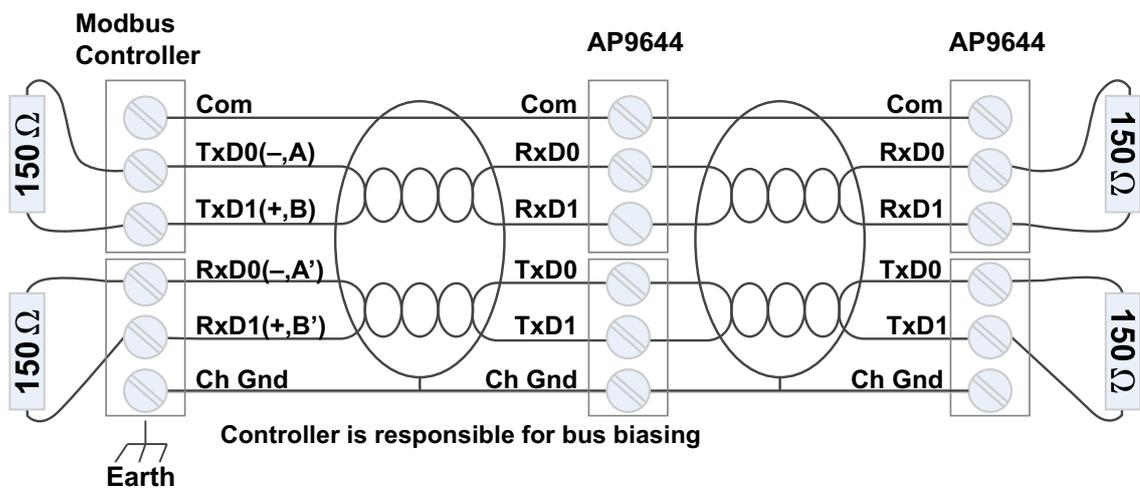
For more information on the Wiring Guidelines for AP9644, see Application Note #168 "*Modbus Installation and Troubleshooting for AP9635/41/43/44 Network Management Card*", available in Knowledge Base article FA242934 (**www.se.com/faqs/home**).

Modbus Configuration

The AP9644 Modbus RTU serial configuration options can be found through the Web user interface, at the following path:

Configuration > Network > Modbus > Serial

To configure the serial Modbus settings:

1. Use **Access** to enable Modbus serial as a method of communication with the NMC.
2. Set the connection parameters for the Modbus serial connection:
   a. **Baud Rate** is the data rate in bits per second. It can be set to 9600 (default),19200, 2400, or 38400.
   b. **Parity Bit** is the check bit and can be set to Even, Odd or None.
   c. **Target Unique ID** is the unique ID of the target device. It can be set to a value between 1 and 247.
3. Click Apply to save your changes.

NOTE:

- The configuration of the Modbus polling software used to poll the registers should match the Modbus settings configured in the NMC Web user interface.

- It is recommended that you set the polling software to poll one register at a time, and to use a scan rate of 3000ms.

- The recommended timeout for each register is 1000ms.
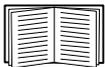
For details on Modbus register settings and configuration, see the Modbus Register Map for your Galaxy device on the Schneider Electric website (**www.se.com/download**).
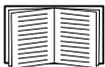
For more information on the Modbus protocol, Modbus data format, and Modbus troubleshooting, see Application Note #168 "*Modbus Installation and Troubleshooting for AP9635/41/43/44 Network Management Card*", available in Knowledge Base article FA242934 (**www.se.com/faqs/home**).