

Vaisala GMP 251/252 CO₂ Probe Quick Start Guide

The Vaisala GMP251 and GMP252 Carbon Dioxide probes are compatible with the Nexsens X2 data logger using RS485 Modbus RTU output.

Note that the GMP25x sensor membrane and cable connection are NOT waterproof. A waterproof, gas-permeable membrane must be installed on the sensor and the green M12 cable connection must be waterproofed prior to deployment.



Wiring

Note: Most sensors will have factory-installed UW connectors. If this is the case, skip to the **Configuring the Vaisala GMP 251/252** section.

For compatibility, a Vaisala sensor cable must be fitted with a NexSens UW connector to interface with the X2 data logger.

For user-wiring with a NexSens UW-Field Wireable Plug (UW-FWP) follow the wiring diagram below.

Vaisala 223263SP Cable Wire Color	Sensor Signal	UW-FWP J Pin Connection
Brown	12 to 30 VDC Power	J5
Blue	Power GND	J2
White	RS485-B	J7
Black	RS485-A	J8

Configuring the Vaisala GMP 251/252

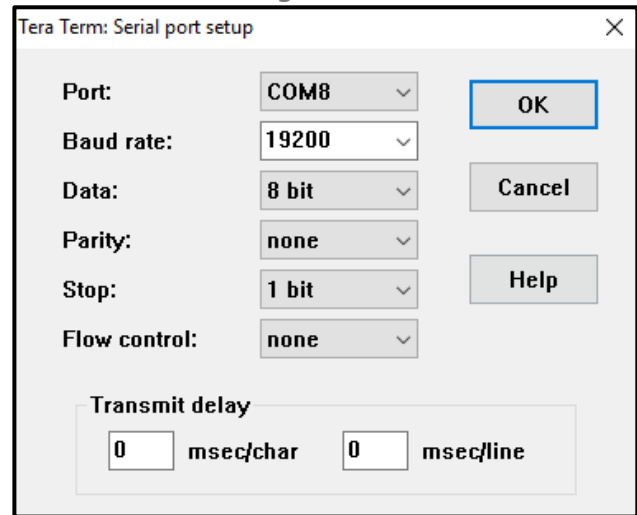
Note: All GMP25x sensors not integrated by NexSens technology require the use of a PC terminal connection and Vaisala's USB interface cable to modify the sensor output.

- 1 Download or launch a terminal emulation software. NexSens recommends **Tera Term** as a free open-source option.
- 2 Connect the Vaisala USB cable and verify Windows properly downloads the necessary drivers automatically. Verify this appears as a unique COM port connection in Window's Device Manager.

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3 Navigate to **Select|Serial Port**. Choose the appropriate COM port for the Vaisala cable and establish a terminal connection using the default GMP settings shown.

- **Baud Rate:** 19200 Baud
- **Data:** 8 Data Bits
- **Parity:** none
- **Stop:** 1 Bit

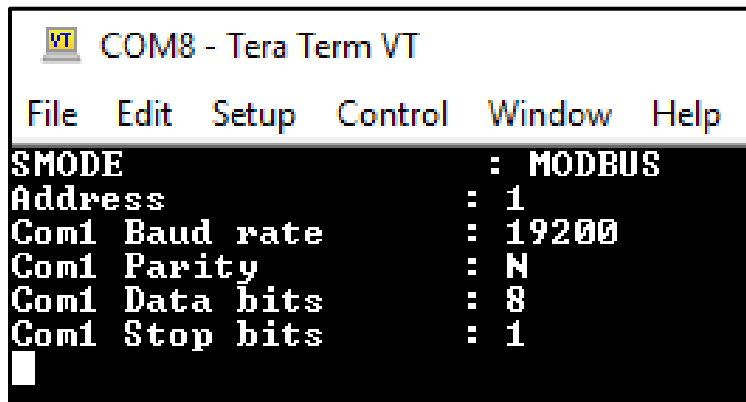


4 While connecting the GMP25x sensor to the Vaisala USB cable, **simultaneously** press and hold the **[Enter]** key.

- Once successful an output of the model and sensor version will appear in the terminal.

5 The following commands must be sent to configure the sensor for an X2-connection.

- **Smode:** Set to **MODBUS** to set communication as Modbus RTU.
- **Address:** Configure the sensor address to **1** if it is the only Modbus RTU sensor. Each sensor must have a unique address to communicate.
- **COM1:** Set the COM 1 settings similar to the image below.



If used with a NexSens data logger, follow the quick start guide included with the logger for a complete setup of the sensor.