

Quick Steps for Working with Modbus



Modbus is an open serial communication protocol designed for use with programmable logic controllers. It is a standard communication protocol in industry, commonly used to connect industrial electronic devices. SONOTEC's Modbus protocol is based on the SONOTEC RS485 Standard Protocol and is Modbus RTU. In order to identify SONOFLOW sensors and make adjustments to sensor parameters, the sensors must be in standard RS485 mode. This tech note will explain how to switch between standard RS485 protocol and Modbus mode.

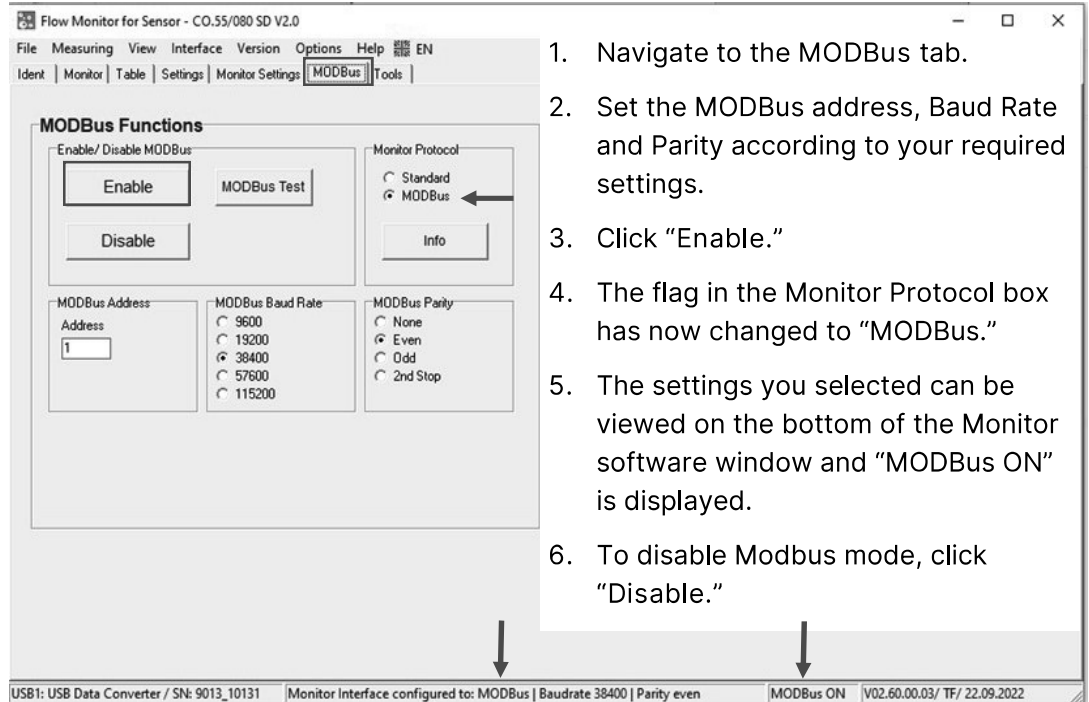
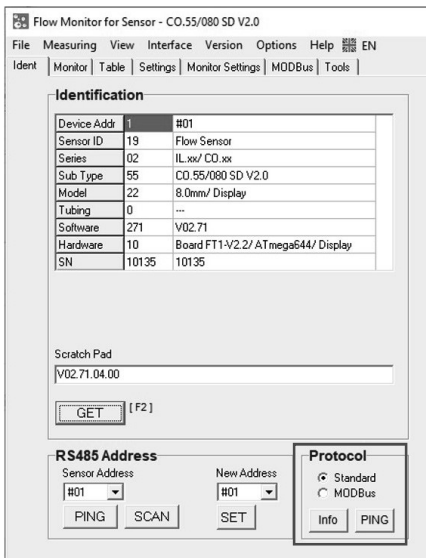


Enabling Modbus Mode

Note: SONOFLOW Monitor Software with a Type 013 Data Converter supplied by SONOTEC must be used to enable/disable Modbus in SONOFLOW sensors.

All SONOFLOW sensors are set by default to standard RS485 protocol.

To enter Modbus mode:

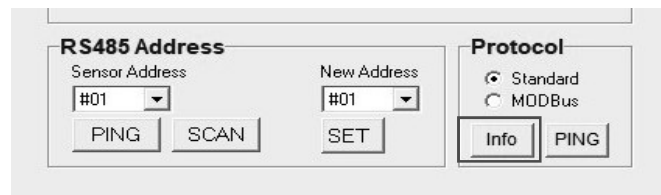
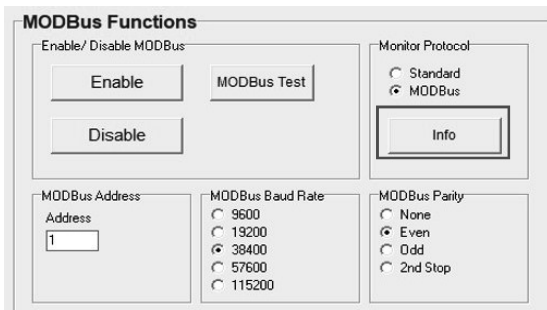


Verifying Modbus Settings

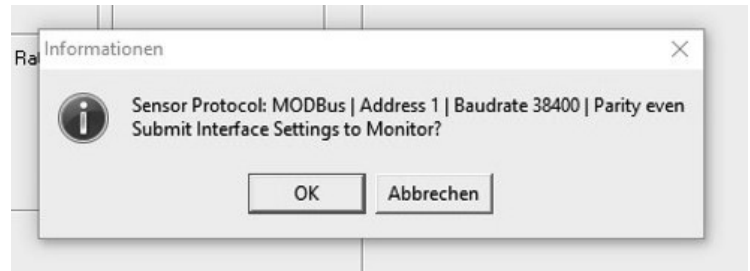
There are two methods to verify Modbus settings after the sensor is in Modbus mode:

On the MODBUS tab, in the MODBUS functions box, under Monitor Protocol, click "Info."

On the Ident tab, in the Protocol box, click "Info."



Both methods will return message below with the currently selected Modbus settings. If settings are correct, click "OK."

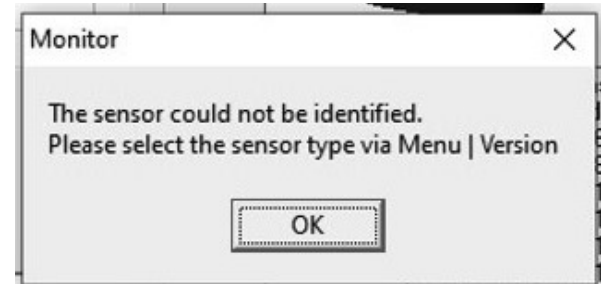


Identifying SONOFLOW Sensors In Modbus Mode

If sensors have been placed in Modbus mode for use in an application, they will not readily identify in the SONOFLOW Monitor software. You must disable Modbus before identifying and making changes to the sensors.

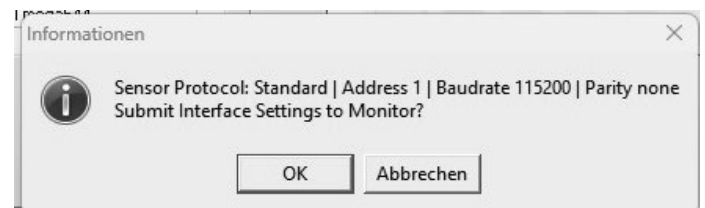
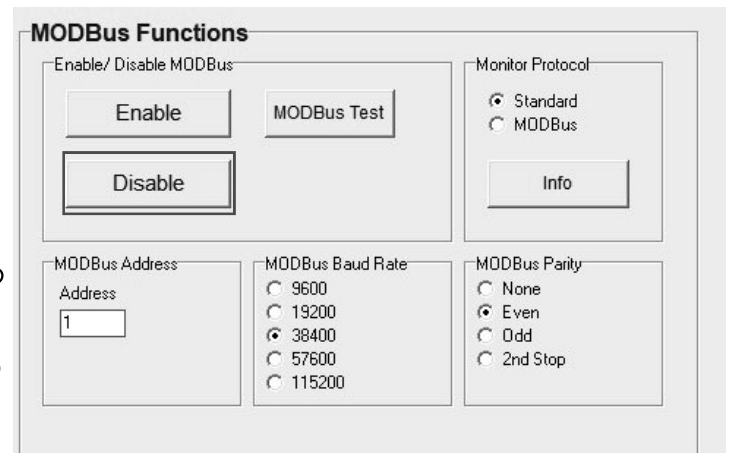
In order to make adjustments or calibrate SONOFLOW sensors, they must be in standard SONOTEC protocol.

If attempting to identify a sensor in Modbus mode with the SONOFLOW Monitor software, an error message will be displayed.



To change to standard mode before the sensor is identified:

1. Navigate to the "MODBus" tab.
2. Click "Disable."
3. Note that the flag in the "Monitor Protocol" box switches to "Standard."
4. To check that the sensor has been successfully returned to Standard Protocol, click "Info." A pop-up dialog box will confirm that the sensor is now set to Standard protocol. Click "OK."
5. Now navigate to the "Ident" tab and click "GET" to identify the sensor.



For complete instructions on working SONOTEC Modbus protocol, please see the user manual, "Concept of Serial Communication MODBus Protocol."

For issues working with SONOFLOW sensors, please contact SONOTEC application support.