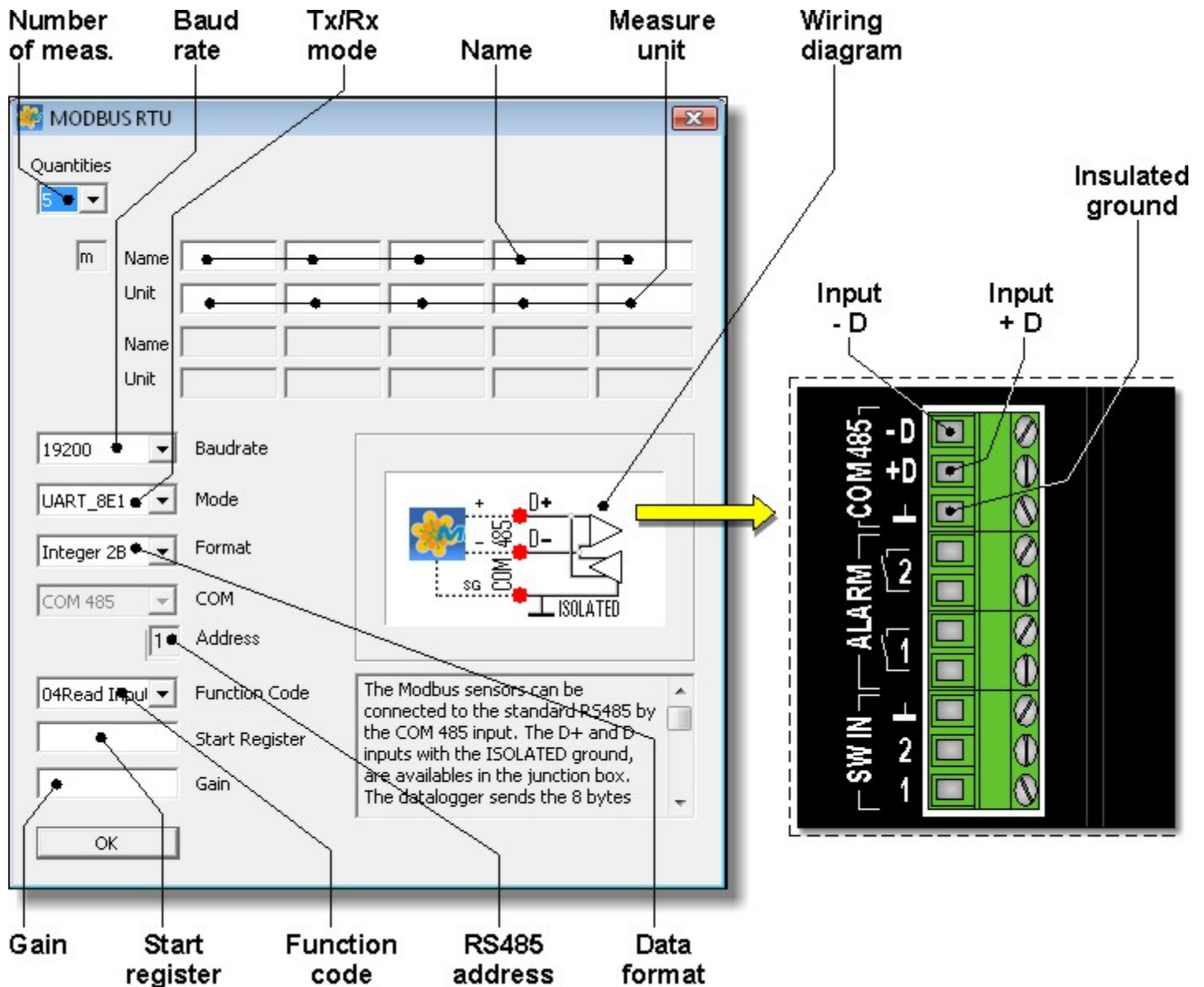


MODBUS RTU CONFIGURATION



[View the RS485 port arrangement](#)

Quantities (Number of measured quantities)

Select the number of physical quantities that you wish to capture from the sensor. The value can be set from 1 to 10, the default value is 5.

Name

Enter an identifying name for each of the quantities to be acquired. You can assign as the name, for example, the type of measured quantity. The name should begin with a letter and can be maximum 12 characters long. The name unequivocally identifies the measurement being input; you cannot assign the same name to multiple measurements.

Unit (Unit of measurement)

Unit of measurement of the quantity detected by the sensor. It should begin with a letter and can be maximum 12 characters long. The unit of measurement should be in agreement with the value of the Gain parameter.

Baud rate

Select the communication speed of the sensor. The values 9600, 19200, 38400, 57600 and 115200 baud can be selected.

Mode (Communication parameters)

Select the communication parameters. The following options can be selected:

- UART_8N1: no parity, 1 stop bit
- UART_8N2: no parity, 2 stop bits
- UART_8E1: even parity, 1 stop bit
- UART_8E2: even parity, 2 stop bits
- UART_8O1: odd parity, 1 stop bit
- UART_8O2: odd parity, 2 stop bits

Format (Format of data)

Select the format of the data transmitted by the sensor. The following options can be selected:

- Integer 2B: 2 Bytes
- Long 4B: 4 Bytes
- Floating Point 4B: 4 Bytes

Address

RS485 address of the sensor. The software automatically assigns the address. The number is not editable by the user.

Function Code

Select the function code of the Modbus command. The following options can be selected:

- 03 Read Holding Registers
- 04 Read Input Registers

Start Register

Enter the address (not the number) of the register containing the first quantity to be read. The number of consecutive registers to be read is determined by the number of measured quantities.

Gain

The value recorded in the datalogger is the result of a linear formula applied to the measured value:

$$\text{Value recorded} = \text{Gain} \times \text{Value measured}$$

The *Gain* value is the same for all the quantities measured by the sensor. You should only enter the numeric value, without unit of measurement, in the *Gain* field. The unit of measurement should be entered in the *Unit* field. By setting *Gain* = 1, the recorded value is exactly the measured value.

Configuration of the sensor

For a correct functioning of the system, the sensor should be configured according to the following settings:

1. The measured quantities transfer order should match the order programmed in the datalogger.
2. The units of measurement set in the sensor should match the ones programmed in the datalogger.
3. RS485 with Modbus-RTU protocol communication mode.
4. The RS485 Address must match the one programmed into the data logger.
5. The communication speed (Baud rate) must match the one programmed into the data logger.

Error messages

If the configuration parameters are not correctly input, you can get the following error messages.

The name and Unit fields are required !

Cause: the identification name or the unit of measurement fields were not filled.

There is just an equivalent Name !

Cause: you previously entered a sensor with the same name. You should change the identification name.

Gain must be not zero !

Cause: the Gain field has not been filled or zero has been entered.