

TORRIX M12

TORRIX Configuration Tool

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1 Overview

The high-precision and robust level sensor TORRIX is designed to provide continuous gauging of liquid media filling levels in tanks. The measuring principle used by the sensor exploits the physical effect of magnetostriction and is unaffected by temperature influence. Magnetostriction is particularly ideal where level measurements are required to be extremely accurate.

The level sensor outputs measuring signals in the range 4 to 20 mA or via a digital communication protocol. Operating on a digital protocol (e.g. Modbus), the TORRIX level sensor is able to output the position of two floats as well as the temperature. Available in lengths of 200 to 6,000 mm, or as flexible Version for even larger tanks it is compatible with a variety of tank dimensions. It also comes in the following versions:

- Version for installation on a bypass with magnetic float
- Version with flange
- Version with screw-in unit for infinitely variable positioning of the level sensor

The level sensor TORRIX Ex ... with Ex approval (ATEX, IECEx) can be installed in potentially explosive areas which require equipment protection level Ga (Ex Zone 0), Ga/Gb (Ex Zone 0/1) or Gb (Ex Zone 1) for electrical equipment.

This document describes how to configure a TORRIX M12 using the TORRIX Configuration Tool.

2 Requirements

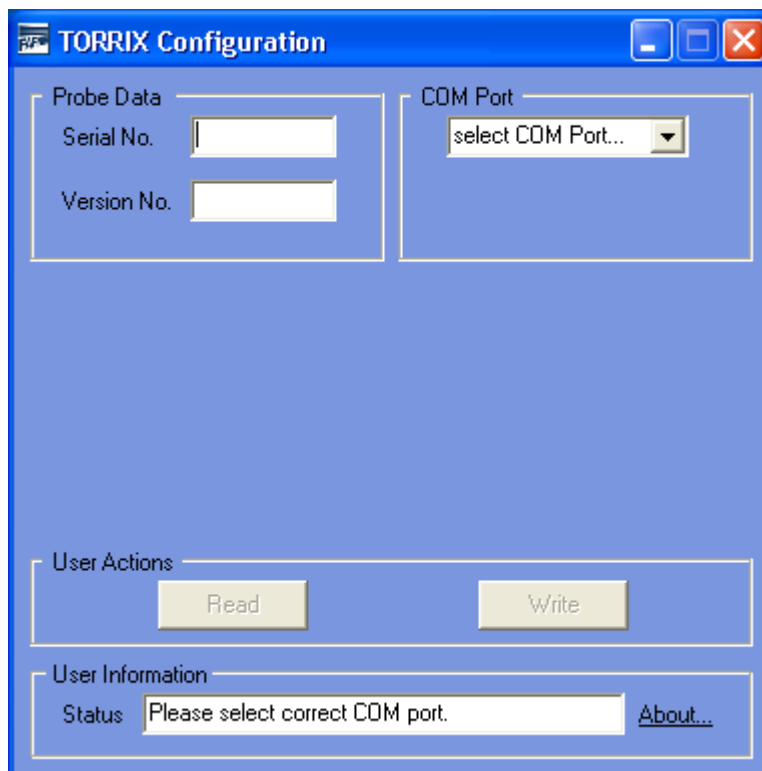
- (1) Computer with Microsoft Windows XP or newer operating system (32/64 bit)
- (2) PC interface for the TORRIX M12 probe (e.g. FAFNIR USB Adapter)
- (3) For TORRIX C/SC: FAFNIR USB Adapter [TORRIX] – Part no. 900185
For TORRIX RS485: FAFNIR USB Adapter [TORRIX RS485] – Part no. 900187

3 Installation

Copy the TORRIX Configuration Tool to the desired folder on your PC or notebook, no installation process is needed.

4 Preparation and program start

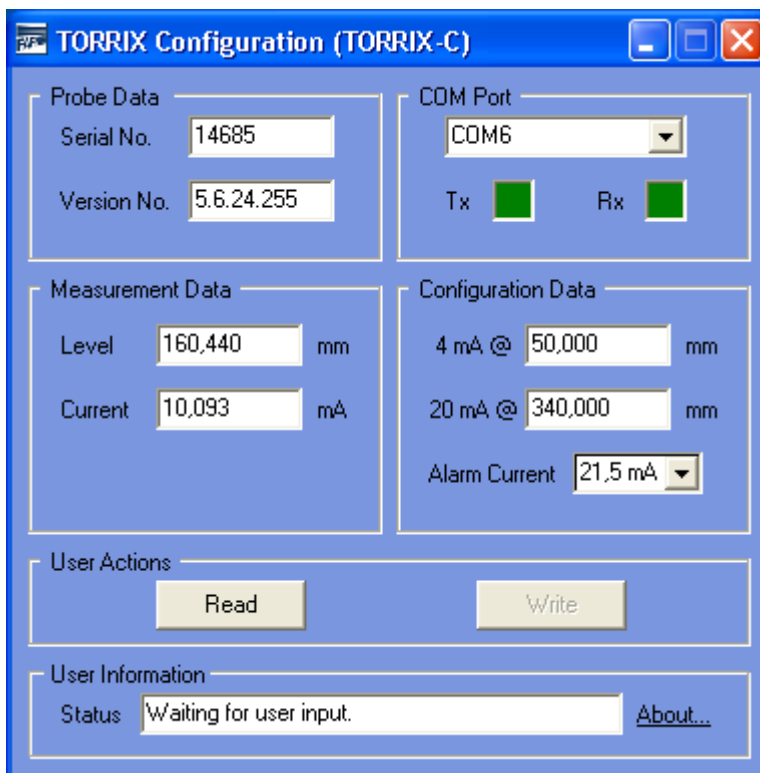
- (1) Connect the TORRIX probe with the interface (e.g. FAFNIR USB Adapter) to the computer.
- (2) Start the TORRIX Configuration Tool on your computer. As soon as the Configuration Tool has been started, the following window opens.



- (3) Select the correct COM port used by the interface

- (4) After the COM port has been selected correctly the configuration tool is establishing a connection to the probe.
- If the probe is not supported, the warning message 'The connected probe is not supported.' is shown.
 - If the probe is supported, the following window with detailed probe information appears:

TORRIX C (4 ... 20 mA)



TORRIX Configuration (TORRIX-C)

Probe Data
Serial No. 14685
Version No. 5.6.24.255

COM Port
COM6
Tx Rx

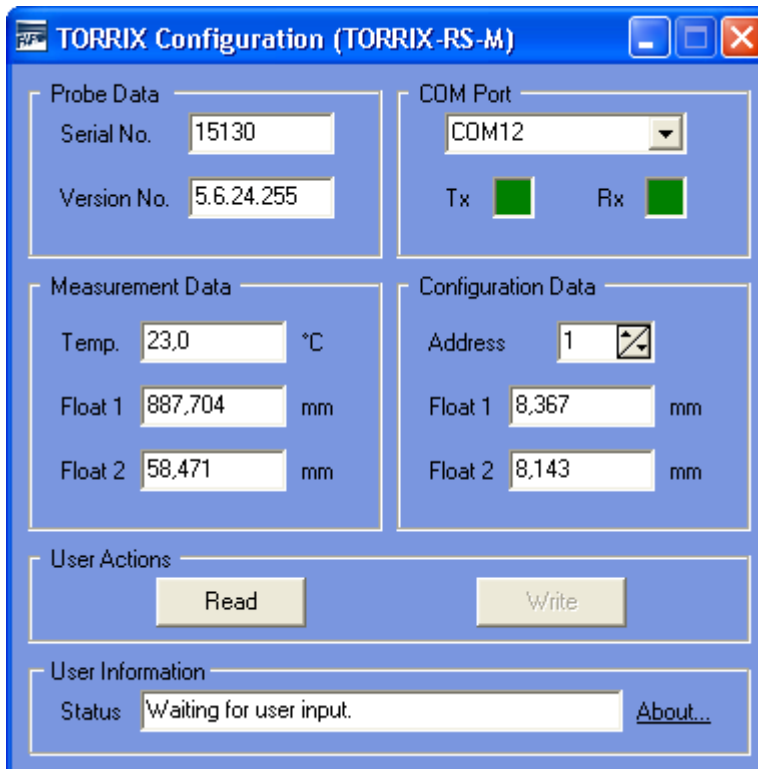
Measurement Data
Level 160,440 mm
Current 10,093 mA

Configuration Data
4 mA @ 50,000 mm
20 mA @ 340,000 mm
Alarm Current 21,5 mA

User Actions
Read Write

User Information
Status: Waiting for user input. [About...](#)

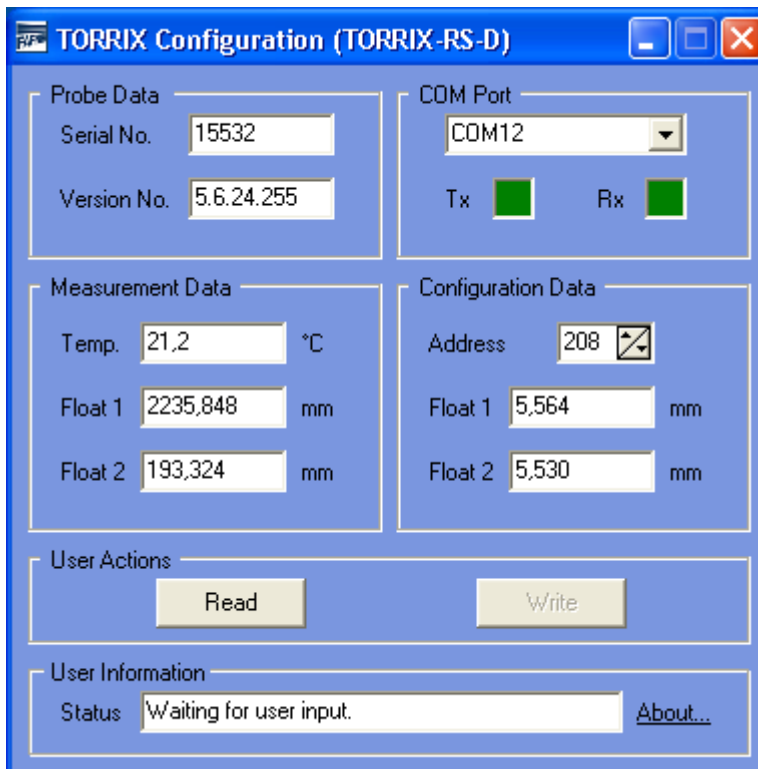
TORRIX RS485 with MODBUS ASCII protocol



The screenshot shows the 'TORRIX Configuration (TORRIX-RS-M)' window. It is divided into several sections:

- Probe Data:** Serial No. 15130, Version No. 5.6.24.255.
- COM Port:** CDM12 (selected in dropdown), Tx and Rx status indicators are green.
- Measurement Data:** Temp. 23,0 °C, Float 1 887,704 mm, Float 2 58,471 mm.
- Configuration Data:** Address 1, Float 1 8,367 mm, Float 2 8,143 mm.
- User Actions:** Read and Write buttons.
- User Information:** Status 'Waiting for user input.' and an About... link.

TORRIX RS485 with FDA protocol



The screenshot shows the 'TORRIX Configuration (TORRIX-RS-D)' window. It is divided into several sections:

- Probe Data:** Serial No. 15532, Version No. 5.6.24.255.
- COM Port:** CDM12 (selected in dropdown), Tx and Rx status indicators are green.
- Measurement Data:** Temp. 21,2 °C, Float 1 2235,848 mm, Float 2 193,324 mm.
- Configuration Data:** Address 208, Float 1 5,564 mm, Float 2 5,530 mm.
- User Actions:** Read and Write buttons.
- User Information:** Status 'Waiting for user input.' and an About... link.

5 User interface

The program window is split up into these different sections:

- Probe Data
- COM Port
- Measurement Data
- Configuration data
- User Actions
- User Information

Probe Data

This section shows the serial number and the firmware version of the connected probe.

COM Port

This section shows the number of the selected COM port and the status of the transmit and receive line.

Measurement Data

This section shows the measurement data read from the connected probe. The content of this section varies depending on the connected probe type. To update the measurement data press the button "Read" in the section "User Actions".

Configuration Data

This section shows the configuration data read from the connected probe. The content of this section varies depending on the connected probe type. To read the existing configuration data of the probe press the button "Read" in the section "User Actions". To write down new configuration data to the probe press the button "Write" in the section "User Actions". Note that the button "Write" will only be enabled after a change to the existing configuration data has been made. If you want to undo changes to the configuration data that have not been transferred to the probe use the button "Read".

The following configuration values can be adjusted with the different types of TORRIX probes.

TORRIX C

- 4 mA point
- 20 mA point
- Alarm current



TORRIX RS485 with MODBUS ASCII protocol

- MODBUS address in the range of 1 to 247
- Offset of float 1 (upper float)
- Offset of float 2 (lower float)

TORRIX RS485 with FDA protocol

- Communication address in the range of 192 to 253
- Offset of float 1 (upper float)
- Offset of float 2 (lower float)

User Actions

This section contains two buttons. The button "Read" for reading measurement and configuration data from the connected probe and the button "Write" to writing down changed configuration data to the probe.

User Information

This section informs the user about what's currently going on.