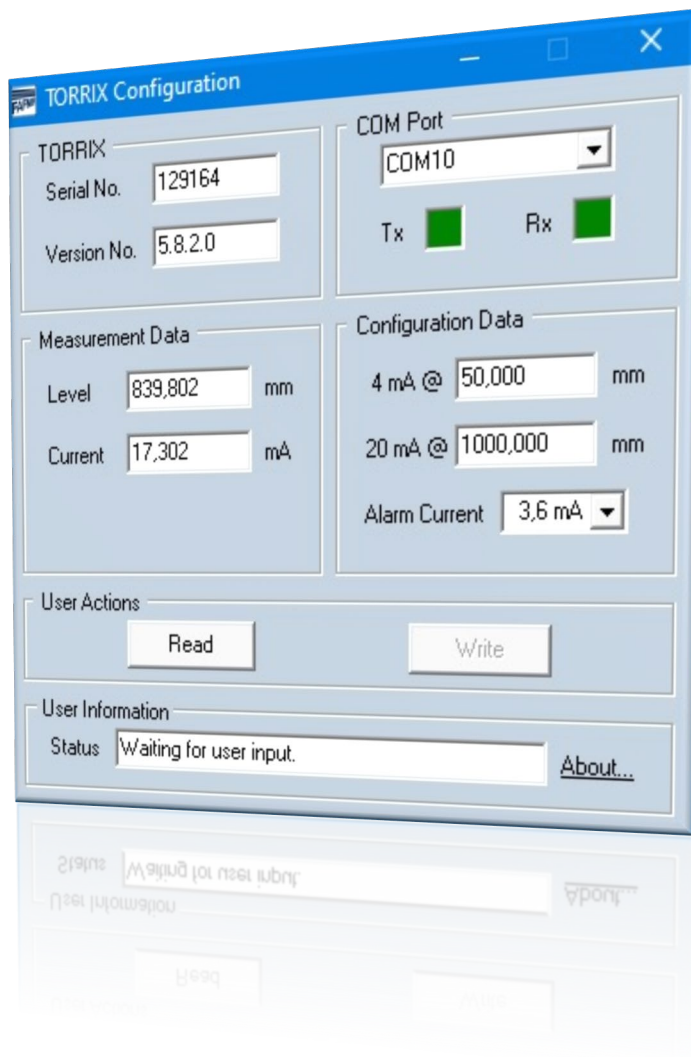


# TORRIX

## Configuration Tool



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## Table of Contents

1	Introduction.....	1
2	Prerequisites.....	2
3	Cabling.....	2
4	Preparation and program start.....	3
5	Configuration windows for the various probe types.....	4
6	User interface.....	8

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## 1 Introduction

The high-precision and robust level sensor TORRIX is designed to provide continuous gauging of liquid media filling levels in tanks. This method is particularly ideal where level measurements are required to be extremely accurate, such as in the chemical industry.

Depending on the level, the TORRIX outputs corresponding measurement signals in the range from 4 to 20 mA or a digital communication protocol. Operating on a digital protocol (e.g. Modbus), the TORRIX can output the position of two floats as well as the temperature. The following versions of the TORRIX are available with a cable connection or M12 connector:

- TORRIX
- TORRIX C / CVT with 4... 20 mA or Hart® protocol output
- TORRIX SC with FAFNIR Universal Device Protocol
- TORRIX RS485 with MODBUS protocol
- TORRIX RS485 with FDA protocol
- TORRIX RS with FAFNIR Universal Device Protocol

This document describes how to configure a TORRIX using the TORRIX Configuration Tool and a PC / notebook.

With the configuration tool, depending on the TORRIX version various measured values are read and certain parameters can be set, e.g. the measuring points high and low, float positions, or fault current. Corresponding warnings are issued in the event of an error.

## 2 Prerequisites

- (1) PC / notebook with Microsoft Windows XP or newer operating system (32/64 bit)
- (2) free USB port for the FAFNIR USB adapter
- (3) Adapter
  - (a) For TORRIX without M12 connector:  
M12 adapter, art. no. 900223 and  
FAFNIR USB adapter [TORRIX], see item (3b)
  - (b) For TORRIX with M12 connector:  
For TORRIX C/SC: FAFNIR USB adapter [TORRIX], art. no. 900185  
For TORRIX RS: FAFNIR USB adapter [TORRIX], art. no. 900187

## 3 Cabling

- (1) For TORRIX versions without an M12 connector, please install the M12 adapter first
- (2) Connect the TORRIX with the M12 plug of the FAFNIR USB adapter.
- (3) Connect the FAFNIR USB adapter to your PC / notebook.

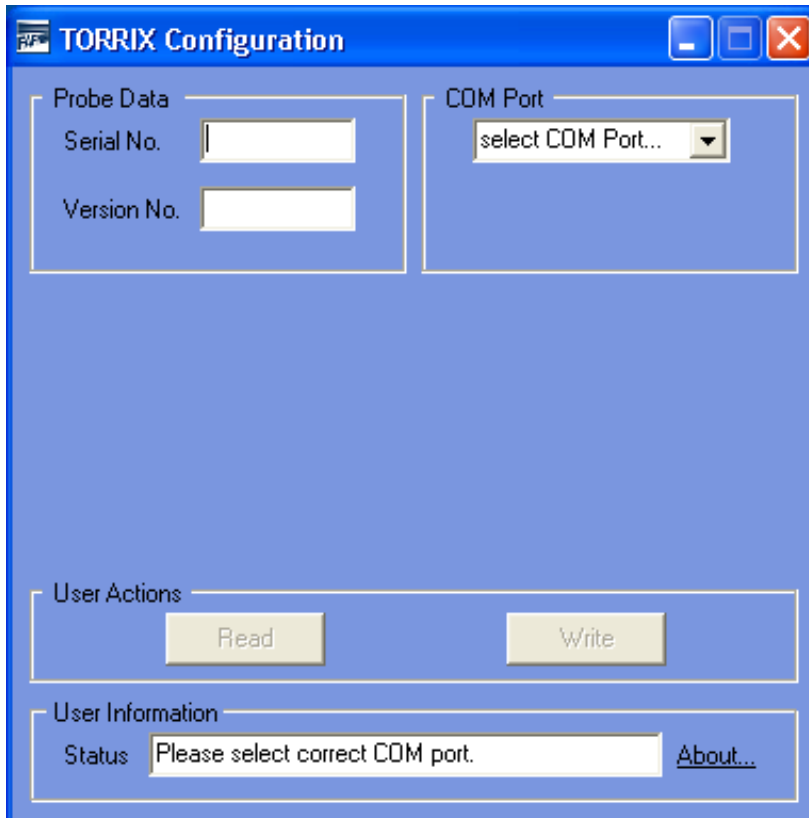
For further information on wiring the TORRIX without an M12 connector, see the technical documentation:



TORRIX 5.5, art. no. 350335

## 4 Preparation and program start

- (1) Copy the TORRIX Configuration Tool to the desired folder on your PC or notebook. No installation is necessary.
- (2) Start the TORRIX Configuration Tool on your computer. As soon as the Configuration Tool has been started, the following window opens.

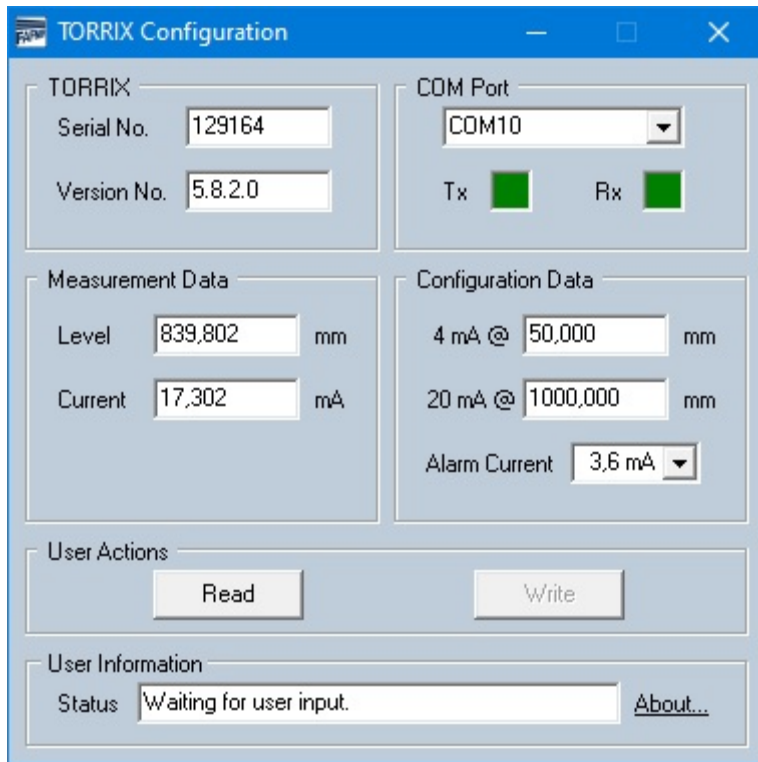


- (3) Select the related COM port used by the interface.

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

## 5 Configuration windows for the various probe types

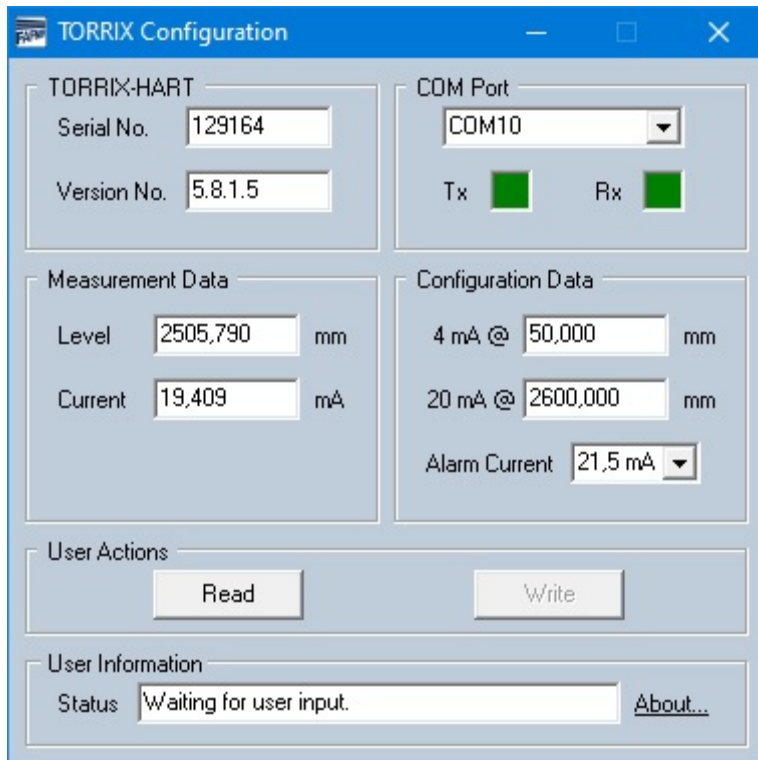
Probe type: TORRIX



The screenshot shows the 'TORRIX Configuration' window with the following fields and controls:

- TORRIX**
  - Serial No.: 129164
  - Version No.: 5.8.2.0
- COM Port**: COM10 (dropdown menu)
- Tx** and **Rx**: Both are indicated by green squares, suggesting they are active.
- Measurement Data**
  - Level: 839,802 mm
  - Current: 17,302 mA
- Configuration Data**
  - 4 mA @ 50,000 mm
  - 20 mA @ 1000,000 mm
  - Alarm Current: 3,6 mA (dropdown menu)
- User Actions**
  - Read button
  - Write button
- User Information**
  - Status: Waiting for user input.
  - About... button

Probe type: TORRIX Hart



**TORRIX Configuration**

**TORRIX-HART**

Serial No.

Version No.

**COM Port**

Tx  Rx

**Measurement Data**

Level  mm

Current  mA

**Configuration Data**

4 mA @  mm

20 mA @  mm

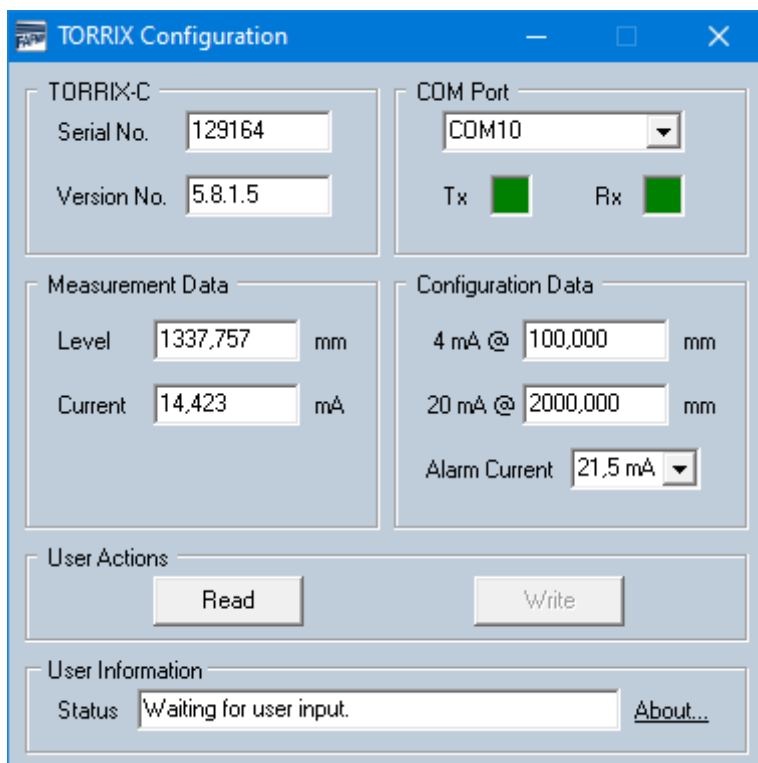
Alarm Current  mA

**User Actions**

**User Information**

Status  [About...](#)

Probe type: TORRIX C/CVT with 4 ... 20 mA



**TORRIX Configuration**

**TORRIX-C**

Serial No.

Version No.

**COM Port**

Tx  Rx

**Measurement Data**

Level  mm

Current  mA

**Configuration Data**

4 mA @  mm

20 mA @  mm

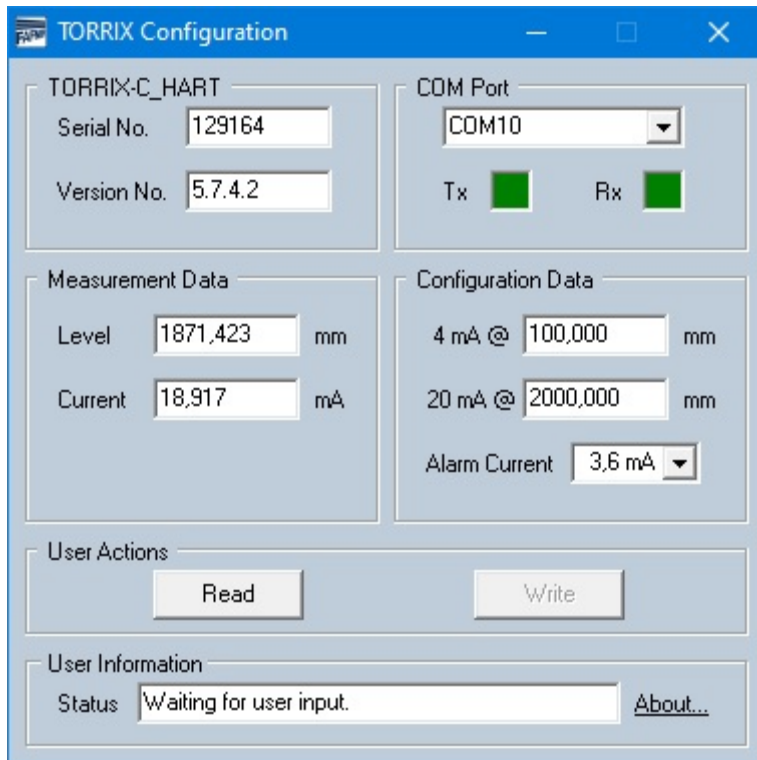
Alarm Current  mA

**User Actions**

**User Information**

Status  [About...](#)

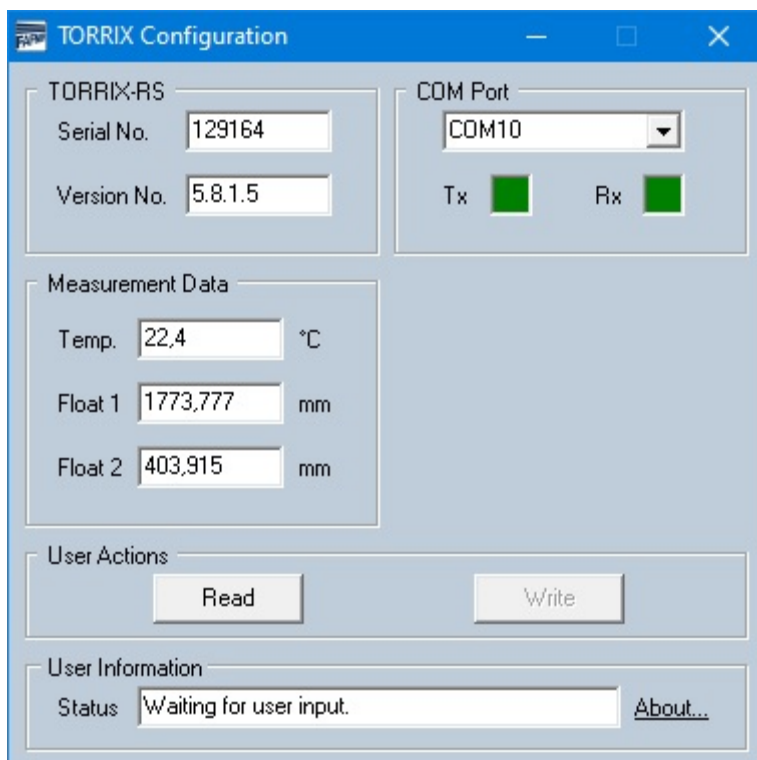
Probe type: TORRIX C Hart



The screenshot shows the TORRIX Configuration window for a TORRIX-C\_HART probe. The window has a blue title bar and standard Windows window controls. It is divided into several sections:

- TORRIX-C\_HART**: Contains fields for Serial No. (129164) and Version No. (5.7.4.2).
- COM Port**: A dropdown menu set to COM10, with Tx and Rx status indicators (green squares).
- Measurement Data**: Fields for Level (1871,423 mm) and Current (18,917 mA).
- Configuration Data**: Fields for 4 mA @ (100,000 mm), 20 mA @ (2000,000 mm), and Alarm Current (3,6 mA).
- User Actions**: Read and Write buttons.
- User Information**: Status field (Waiting for user input.) and an About... link.

Probe type: TORRIX RS (not configurable)

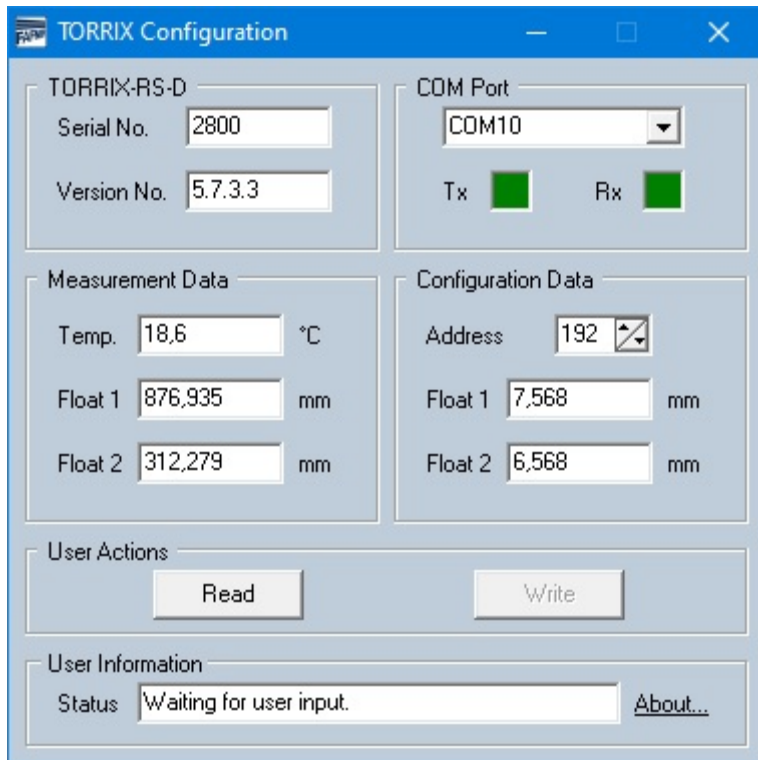


The screenshot shows the TORRIX Configuration window for a TORRIX-RS probe. The window has a blue title bar and standard Windows window controls. It is divided into several sections:

- TORRIX-RS**: Contains fields for Serial No. (129164) and Version No. (5.8.1.5).
- COM Port**: A dropdown menu set to COM10, with Tx and Rx status indicators (green squares).
- Measurement Data**: Fields for Temp. (22,4 °C), Float 1 (1773,777 mm), and Float 2 (403,915 mm).
- User Actions**: Read and Write buttons.
- User Information**: Status field (Waiting for user input.) and an About... link.



Probe type: TORRIX RS D



**TORRIX Configuration**

**TORRIX-RS-D**

Serial No.

Version No.

**COM Port**

Tx  Rx

**Measurement Data**

Temp.  °C

Float 1  mm

Float 2  mm

**Configuration Data**

Address

Float 1  mm

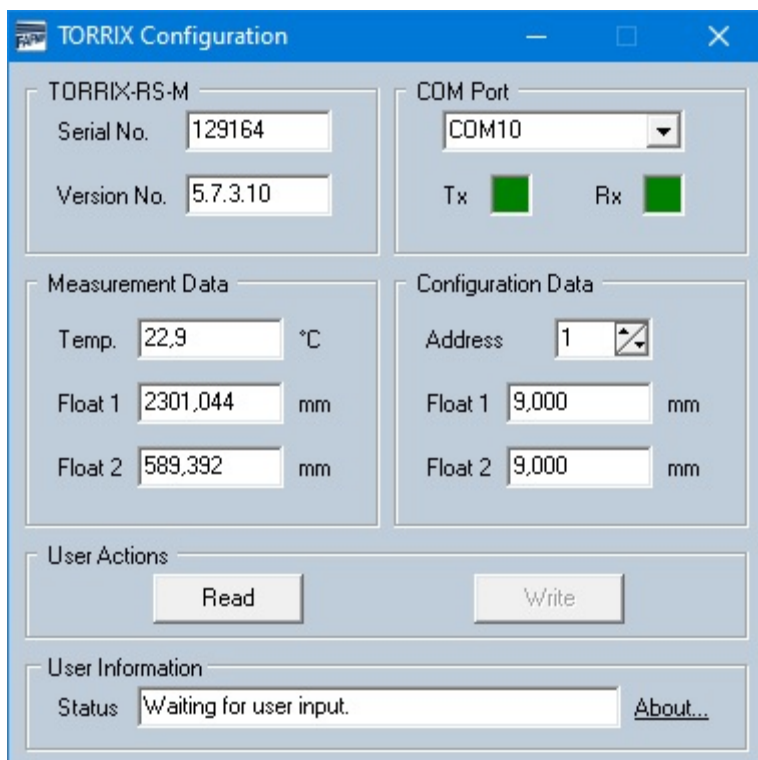
Float 2  mm

**User Actions**

**User Information**

Status  [About...](#)

Probe type: TORRIX RS M



**TORRIX Configuration**

**TORRIX-RS-M**

Serial No.

Version No.

**COM Port**

Tx  Rx

**Measurement Data**

Temp.  °C

Float 1  mm

Float 2  mm

**Configuration Data**

Address

Float 1  mm

Float 2  mm

**User Actions**

**User Information**

Status  [About...](#)

## 6 User interface

The program window is split up into these different sections:

- TORRIX ... (Probe data)
- COM Port
- Measurement Data
- Configuration Data
- User Actions
- User Information

### **TORRIX ... (Probe data)**

This section shows probe type, 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 "Read" button 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 / TORRIX C / TORRIX CVT

- 4 mA point
- 20 mA point
- Alarm current

#### TORRIX RS485 with MODBUS protocol

- Communication 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.



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