

**user manual**

**Transmitter configuration**

version 1.1  
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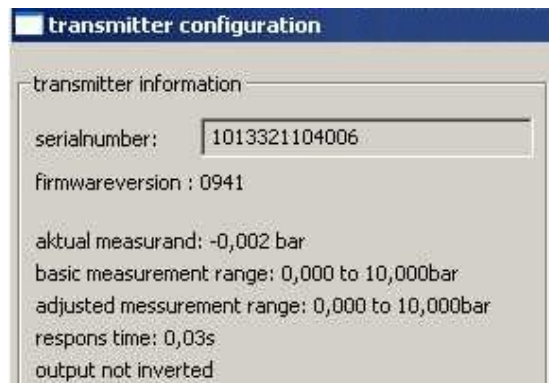
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# 1 Handling

After starting the program, the service box is attempted to be initialized. The search method depends on the settings, which are described in chapter 2.2.

After initialization, the pressure transducer can be connected to the service box. Incorrect plugging does not lead to destruction.

After the pressure transducer has been connected and identified, all basic information will be shown on the upper left part of the window. Figure 1 shows an example.



*figure 1: basic information of a transmitter*

Now, delay time, measurement range, offset correction and inversion of output signal can be adjusted. The parameters are described more precisely in chapter 4.

By pressing the button "write settings", the parameters are transferred to the transmitter. The button is enabled only if all settings are within the range of transmitter specification. Then the basic information is automatically updated so that the accuracy of settings can be verified. At this time, the next transmitter can be connected for configuration.

## 2 Configuration of program

### 2.1 Language

This parameter changes the program language. At present, the program languages German and English are available. Other languages are available on request.

### 2.2 Searching service box

The program is able to search for the service box automatically. For this purpose, "Servicebox automatic search" is to be selected (see fig. 2). Alternatively, the serial port can be selected manually. Then the program tries to initialize the service box. After successful initialization, the firmware version of service box is shown on the lower right corner of the window (see fig. 2).



figure 2: Setting of automatic search of the service box and the displayed firmware version after successful initialization.

### 2.3 Pressure unit

The pressure unit for all displayed pressures can be changed within the selection window “unit” (see fig. 3). The units in the field “initial pressure” and “final pressure” are changed only after the fields have been edited.



figure 3: Selection of the used pressure unit

## 3 Parameters of the transmitter

### 3.1 Initial pressure and final pressure

This parameter scales and shifts the output parameter in a defined area. During the adjustment, the measuring range limits must neither be exceeded nor undercut by more than 20 %. In addition, the adjusted range must not be less than ¼ of the full temperature range. In case of non-compliance, a note appears on the right in the input field (see fig. 4).

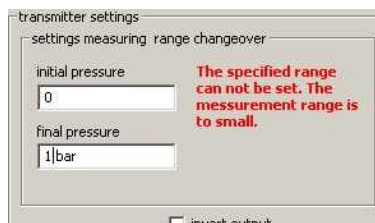


figure 4: example shows an error because the range is not in specification.

Furthermore, it is important to note that the error increases by the reciprocal factor, if the measuring

range is reduced.

Example: A transmitter has been calibrated to 0 to 4 bar (basic range) and specified with a total error of 0.5%. The measurement range is now adjusted to 1 to 3 bar. As a result, the basic measuring range drops by half (2 bar) and the relative error doubles to 1%.

### ***3.2 Delay time***

The delay time defines the response time of a transmitter. This setting indicates how long it takes the output signal to respond to a step function at the input.

The delay time is influenced by different types of filters. As a consequence, the output signal reacts less sensitively to pressure peaks in the event of extended delay time.

### ***3.3 Inverting the output signal***

This parameter inverts the output signal of a transmitter. This means that the maximum output signal is given at minimum pressure and vice versa.

### ***3.4 Offset correction***

If this function is activated by clicking “set zero”, an offset correction is done during writing the settings. It is important to ensure that zero pressure is applied when starting this function. For safety, this feature is disabled, if the pressure transmitter measures a pressure higher than 12.8% of the measuring range.

## **4 Write settings**

After pressing this button, all settings are transferred to the transmitter. After this function has been terminated, the settings are read out immediately and shown in the information area. Now, the settings can also be checked for errors.

## **5 Validate analogue measurement**

If you want to check the output signal of current loop transmitters with a meter, pressing this button is absolutely necessary. With this function, the detection mechanism of the service box is disabled to prevent cross currents from flowing through the communication lines.

## **6 Switch configuration**

This setting is used to configure the switch points of a transmitter. The dedicated fields are only available, if the transmitter supports switch points.

The actual switch configuration is displayed. The settings can be transferred to the transmitter only if all parameters are within the transmitter specification.