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2. Product- or curve switch over

2.1

Switch over via HART-Standard-Modem and WIO-Software. (remote switch over)

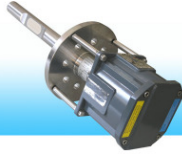
Example:

The screenshot shows the 'Unbenannt - Wio2' software window. It has a menu bar with 'Datei', 'Ansicht', 'Sensor', and 'Extras'. Below the menu is a toolbar with icons for file operations and navigation. The main interface is divided into several sections:

- Device** tab is selected.
- Generate Linear Curve** section: Includes input fields for 'Samples', 'Lower Point Digits (LD): 2000', 'Higher Point Digits (HD): 10000', and a 'Generate Curve' button. It also shows 'Z-Val: 2000' and 'S-Val: 10000'.
- Shift Active Curve** section: Includes a percentage input field set to '0' and an 'Apply' button.
- Curves** section: A table with columns for 'active', 'Xfer.', '^3', '^2', '^1', and '^0'. A white arrow points to the 'active' column. The table contains 5 rows, with the first row (0) selected.
- Warning**: A yellow triangle with an exclamation mark and the word 'Danger' is shown next to a text box: 'The change of analog output can cause serious injury or death. To avoid this switch any successor devices to manual mode!'
- Status Bar**: Shows 'COM2 1200Bd', 'PA:0', and 'NUM'.

active	Xfer.	\wedge^3	\wedge^2	\wedge^1	\wedge^0
<input checked="" type="radio"/>	LIN	0	0	0.011364	-13.636
<input type="radio"/>	LIN	0	0	0.0025	-5
<input type="radio"/>	LIN	0	0	0	0
<input type="radio"/>	LIN	0	0	0	0
<input type="radio"/>	LIN	0	0	0	0

The number of the curves is limited to 5.



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2.2

Switch over with SCADA:

Here the measuring curve with the lowest crude oil density has to adjust within the sensor. The sensor is sending out a basis value per mA to the SCADA. The correction is done within the SCADA.

Advantages:

Because there is no communication with the sensor this is the faster and easier way than to switch over via HART.

The number of curves is not limited with using the SCADA. (e.g. 10 ..20..>)

3.

temperature gradient respectively material coefficient

Already programed, (operation manual 5.3.11)

If there are any problems proceed like this:

With a Tri-Loop-coupler, which has to be installed additionally, it is possible to record the temperature together with the water content.

The measuring values are recorded by a PC (DAQ-data aquisition soft- and hardware required) or by SCADA.

With this data the temperature gradient can be calculated.