



## Operation manual “Trend”

for hydrocarbon analyzers

SmartFID mobile and SmartFID ST



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## 1 Introduction

Since autumn 2015 customers of SmartFID systems have the option to buy the feature “Trend” for their SmartFID device. This feature represents a graphical view on the measuring value in its temporal course. Trend offers various possibilities to take effect on the presentation and allows the review on elapsed time periods limited to one hour.

Please note, that this feature is only available on your device if you bought it at ErsaTec. If you want to buy it don't hesitate to contact us. Our contact data can be found on the first page of this manual.

## 2 Activating trend

Trend can be activated by touching the area left to the measured value in measuring mode (cp. green marked area in figure below).

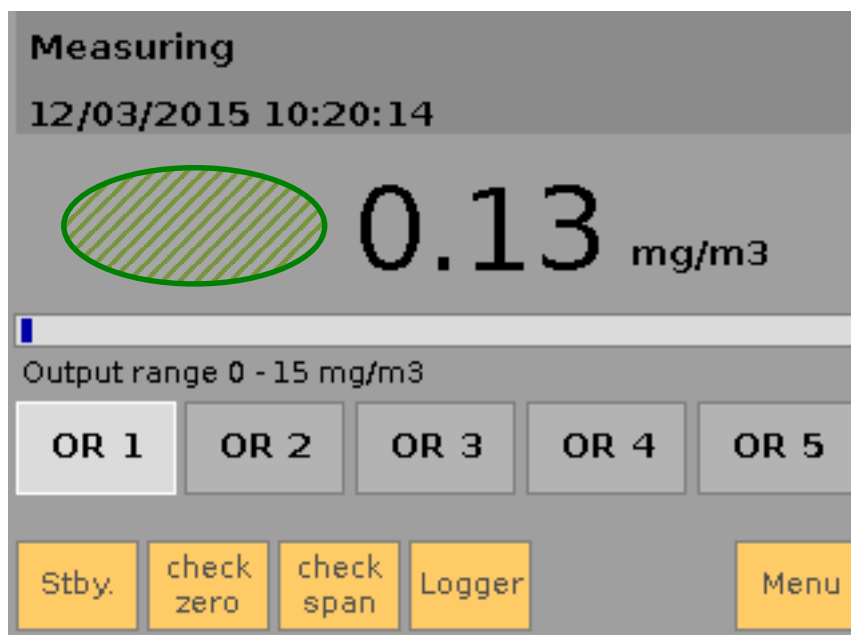


Figure 1: Activating the feature

The system changes from displaying the measured value to trend after touching the area.

### 3 Features of trend

#### 3.1 Layout

The following figure shows the layout of trend.

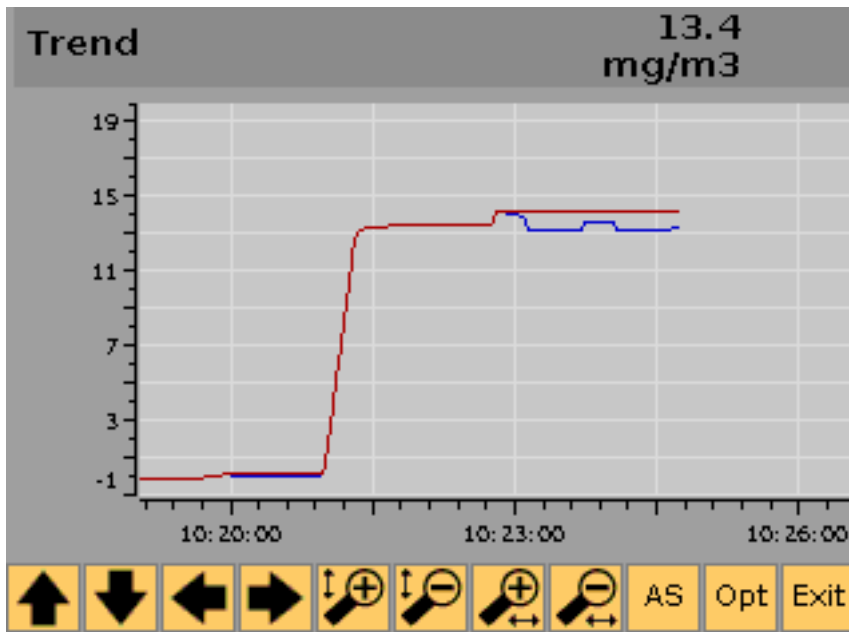


Figure 2: Layout of trend display

The header shows the headline on the left and the measured value in the preset unit on the right.

Below the diagram of the measured value and elapsed time is displayed. In the pictured example the y-axis is labeled from -1 to 19 mg/m<sup>3</sup> (the unit has to be read from the headline on the upper right). The time interval is in between 10:19 and 10:26. Within the diagram a red and a blue line are displayed. The red one is the maximum measured value that was reached within the current measurement. The blue line shows the current measured value. If both values are equal, the red one dominates the blue one. Both lines expand with advanced time to the right.

In the bottom-section there are several operation buttons. Left to right: Four buttons for navigation, four buttons to adjust scaling, AS (auto-scroll-switch), Opt (options) and Exit to close trend and return to the default display of measured value.

## 3.2 Operation buttons

### 3.2.1 Navigation buttons

The navigation buttons on the lower right are used to move the visible area of the diagram but keep the current resolution.



Figure 3: Navigation buttons

By touching the up-arrow navigation in positive y-direction will be performed, by touching the down-arrow navigation in negative y-direction will be performed.

Analog touching the left-arrow navigation in negative x-direction will be performed, by touching the right-arrow navigation in positive x-direction will be performed.

Navigation backward is limited to one hour since current moment. For an advanced evaluation and processing of your measured values (e.g. by using a spreadsheet program) please use the data-logger with its export-functionality.

### 3.2.2 Scaling buttons

These buttons allow to zoom in or to zoom out of the diagram section.



Figure 4: Scaling buttons

The first button refers to the y-axis and raise the resolution; indicated by the y-double-arrow and the plus-symbol in the loupe. The second button refers to the y-axis and decreases the resolution; indicated by the y-double-arrow and the minus-symbol in the loupe.

Analog is the behavior of the third and fourth button referring to the x-axis. That means the third button increases x-resolution; indicated by x-double-arrow and plus-symbol in the loupe. The fourth button decreases x-resolution; indicated by x-double-arrow and minus-symbol in the loupe.

### 3.2.3 Auto scroll feature (AS)

The auto scroll feature (button AS) takes care that the visible diagram section is kept on the current moment on proceeding time. The button has the character of an on/ off switch. If auto scroll is activated, a white frame is displayed around the button.



Figure 5: Activated auto scroll feature

If the user wants to examine a diagram section in the past it would not be helpful if the systems resets the view permanently and automatically to the current moment. So in this case the auto scroll feature needs to be switched off and the diagram view is kept in the time period to be examined.

To observe the current measured value continuously in contrast auto scrolling has to be activated.

### 3.2.4 Options

Touching the button "Opt" shows the configuration menu of trend display. As already described in the SmartFID manual all configuration-settings will be applied directly without a separate confirmation.

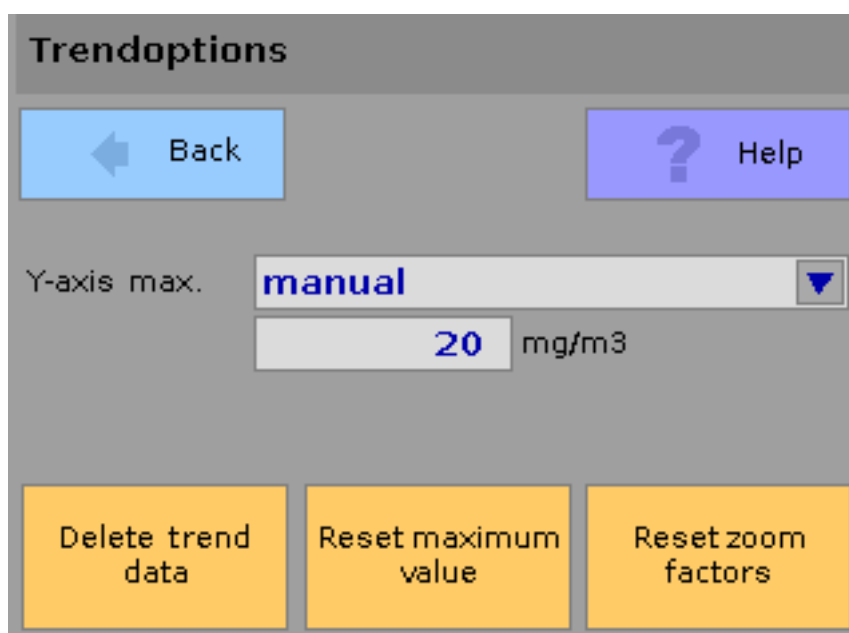


Figure 6: Options

Below the headline the usual buttons are shown which allow to return to the trend or to show the help page.

The dropdown-list "Y-axis max." allows to configure the behavior regarding the maximum value of the y-axis. If the option "manual" is selected the maximum is fixed to the value below the dropdown-list (as shown in the example  $\text{mg}/\text{m}^3$ ). The unit results from the settings for calibration ratio.

Over that it is possible to select in between the options "1.5 x maximum value" or "current output range". These options represent a dynamic y-axis-behavior. "1.5 x maximum value" means that the maximum of the y-axis is determined to the maximum measured value multiplied by 1.5. So this means e.g. for a maximum of  $20 \text{ mg}/\text{m}^3$  that the y-axis ends at  $30 \text{ mg}/\text{m}^3$ . If the maximum raises up to e.g.  $30 \text{ mg}/\text{m}^3$ , the maximum of y-axis changes to  $45 \text{ mg}/\text{m}^3$  and also the schedule line changes.

The maximum is kept in system until it is reset by either touching the button "Reset maximum value" (cf. lower middle on figure 6) or the device is rebooted.

The option "current output range" determines the maximum of y-axis to the maximum of the current output range. This means that a possible activated automatic output range switchover may cause changes in the trend-display by reinitializing y-axis if the switchover is triggered.

On the lower left is the button "Delete trend-data" located. By touching it the trend diagram is flushed. The maximum value is not affected by this action.

On the lower right the button "Reset zoom factors" is located. By touching all zoom settings were reset to default. (cf. Section 3.2.2 „Scaling buttons“).

## 4 Final notes

The SmartFID firmware and so the trend are developed continuously. It cannot be excluded that referring to your version slightly differences to the described functions are possible. If you have questions or any suggestions please contact us. Our data can be found on the first page of this manual.