ToolScope

Quick reference guide

KOMET® BRINKHAUS

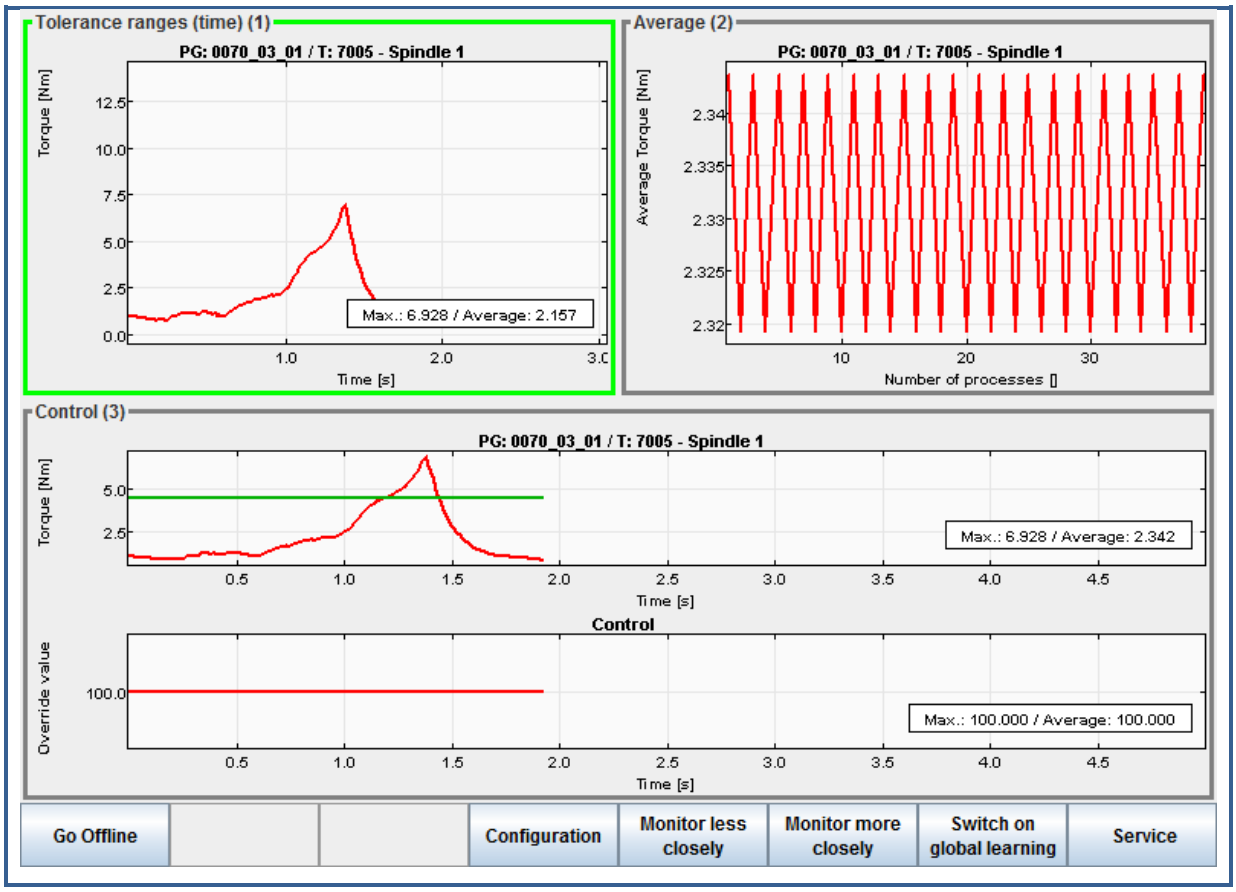
Customer-specific

Last revised:

Contents

1 Customer-specific information

1.1 ToolScope overview



Monitoring channel: Tolerance ranges (time) (1)

- Monitored Signal: Filtered spindle torque
- Breakage monitoring: Exceeding the upper or lower limit or the maximum value
- Machine response if the alarm is triggered: Immediate stop

Monitoring channel: Average (2)

- Monitored Signal: Filtered spindle torque
- Monitoring wear/missing limits
- Machine response if the alarm is triggered: If the wear alarm or the missing limit is triggered→ Stop at the end of the process

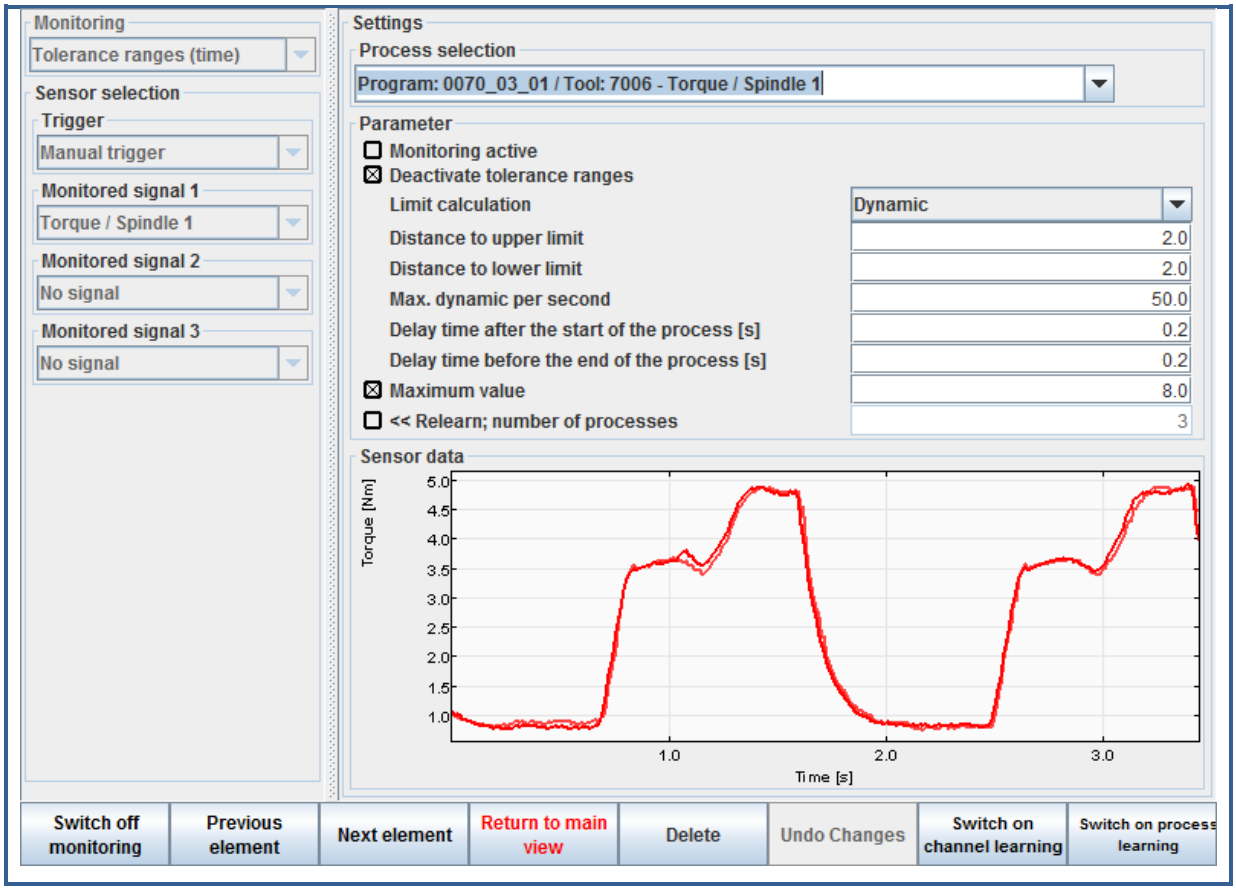
Monitoring channel: Control (3)

- Monitored Signal: Filtered spindle torque
- Adjusting the feed override depending on the spindle torque
- Machine response if the alarm is triggered: No alarms present

1.1.1 Tolerance ranges monitoring channel

1.1.1.1 General

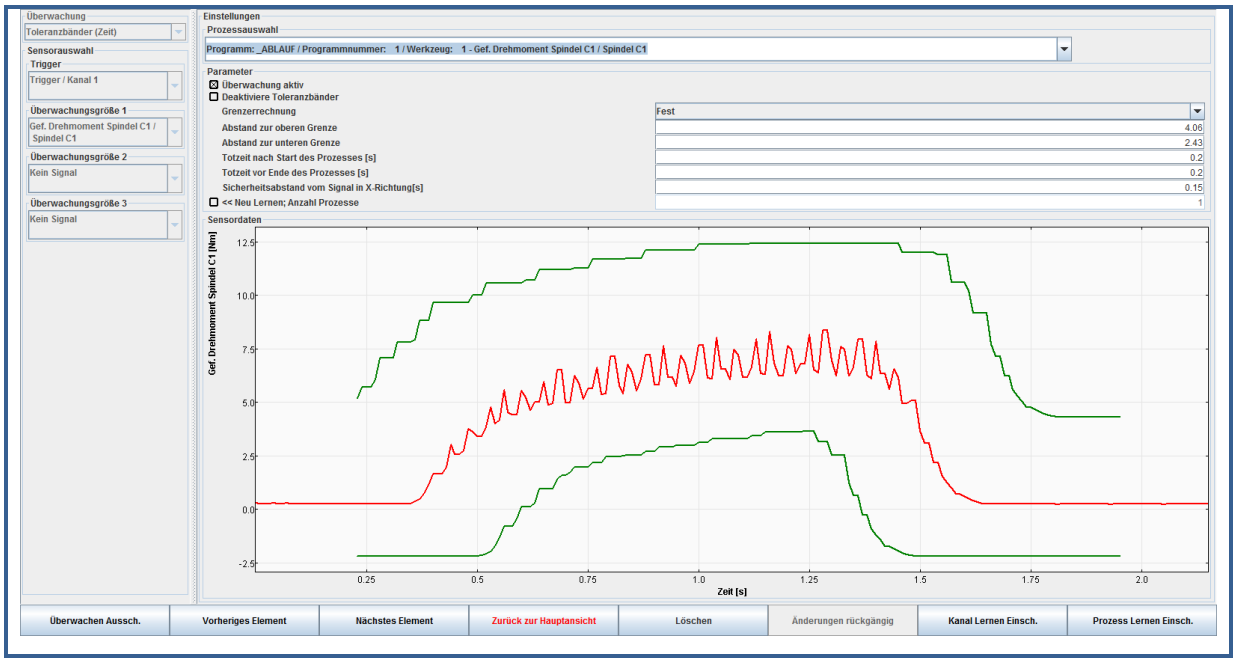
Select monitoring channel → **Configuration**



- General settings are on the left
- Process-specific parameters are on the right
- The signal paths learned for the selected process are shown in the graphic
- The "default" process acts as a learning template for new processes

1.1.1.2 Parameters

Select process → Press ENTER

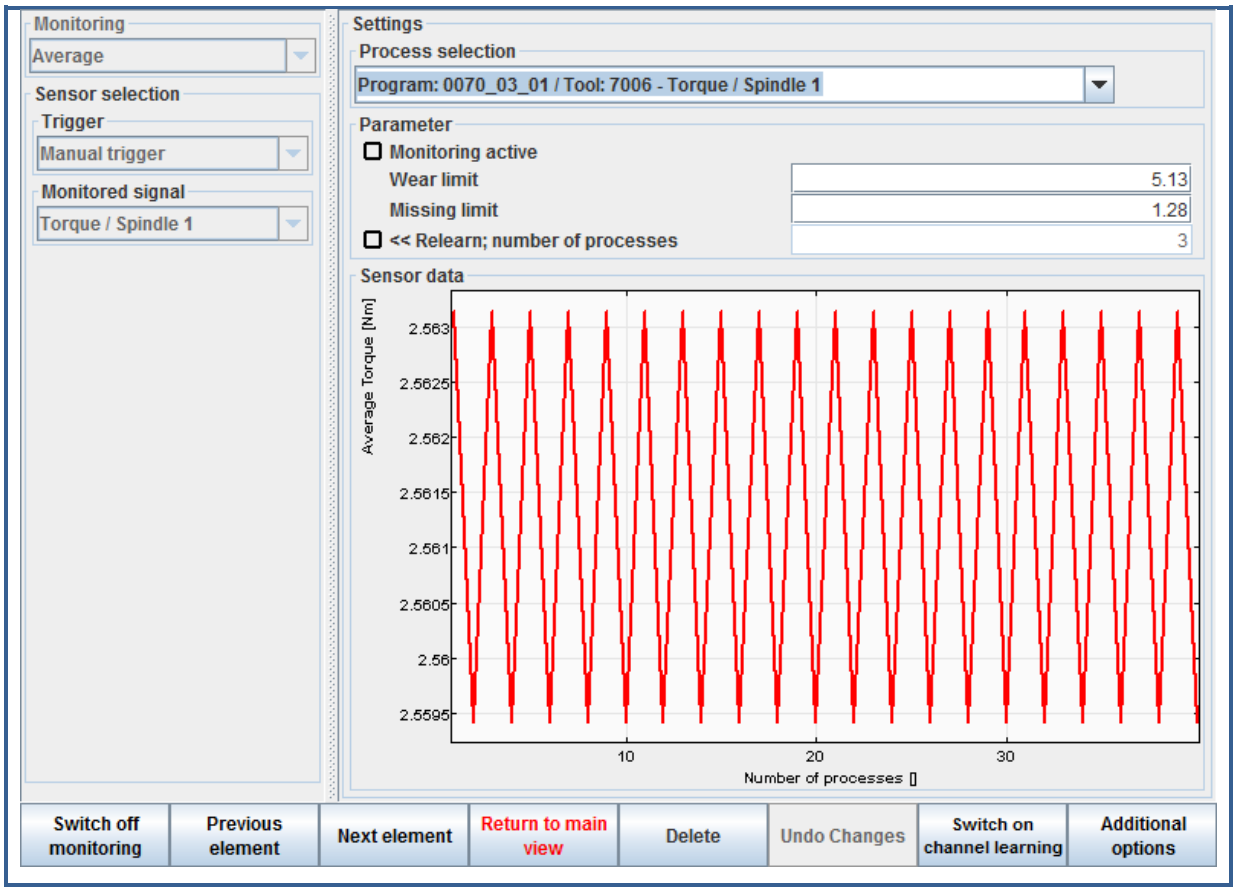


The corresponding parameters can be manually adjusted in order to optimize the selected process:
Monitoring active: When inactive, processes are recorded but not monitored
Deactivate tolerance ranges: Tolerance range monitoring (green) is switched off
Limit calculation: Fixed = limits are retained until the next learning sequence
Distance to upper limit: Larger/smaller = increase or decrease monitoring sensitivity
Distance to lower limit: Larger/smaller = increase or decrease monitoring sensitivity
Delay time after the start… : e.g. limit starts 0.2 s after the start of the process
Delay time before the end… : e.g. limit ends 0.2 s before the end of the process
Clearance along the X axis: Larger/smaller = limit tracks the signal more/less closely
Relearn: The selected process is relearned with the number of processes entered on the right

1.1.2 Average monitoring channel

1.1.2.1 General

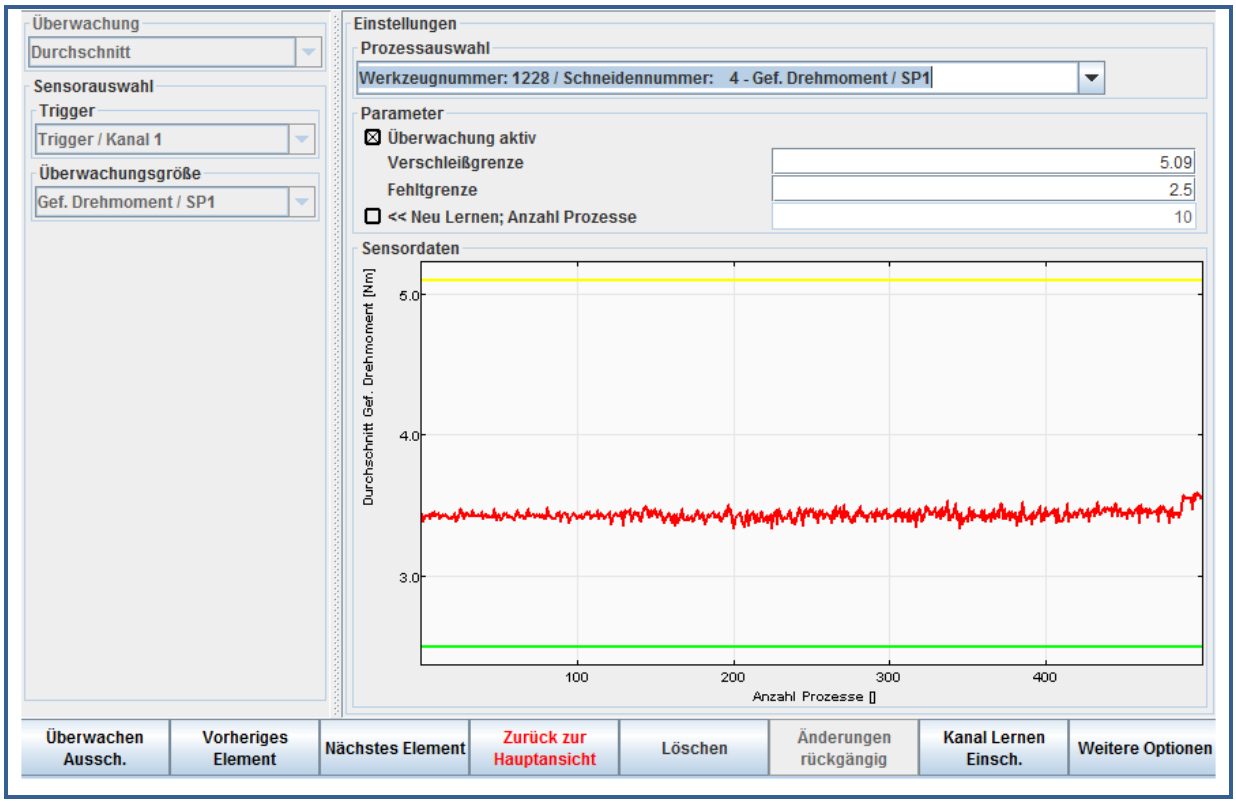
Select monitoring channel → **Configuration**



- General settings are on the left
- Process-specific parameters are on the right
- The signal paths learned for the selected process are shown in the graphic
- The "default" process acts as a learning template for new processes

1.1.2.2 Parameters

Select process → **Press ENTER**

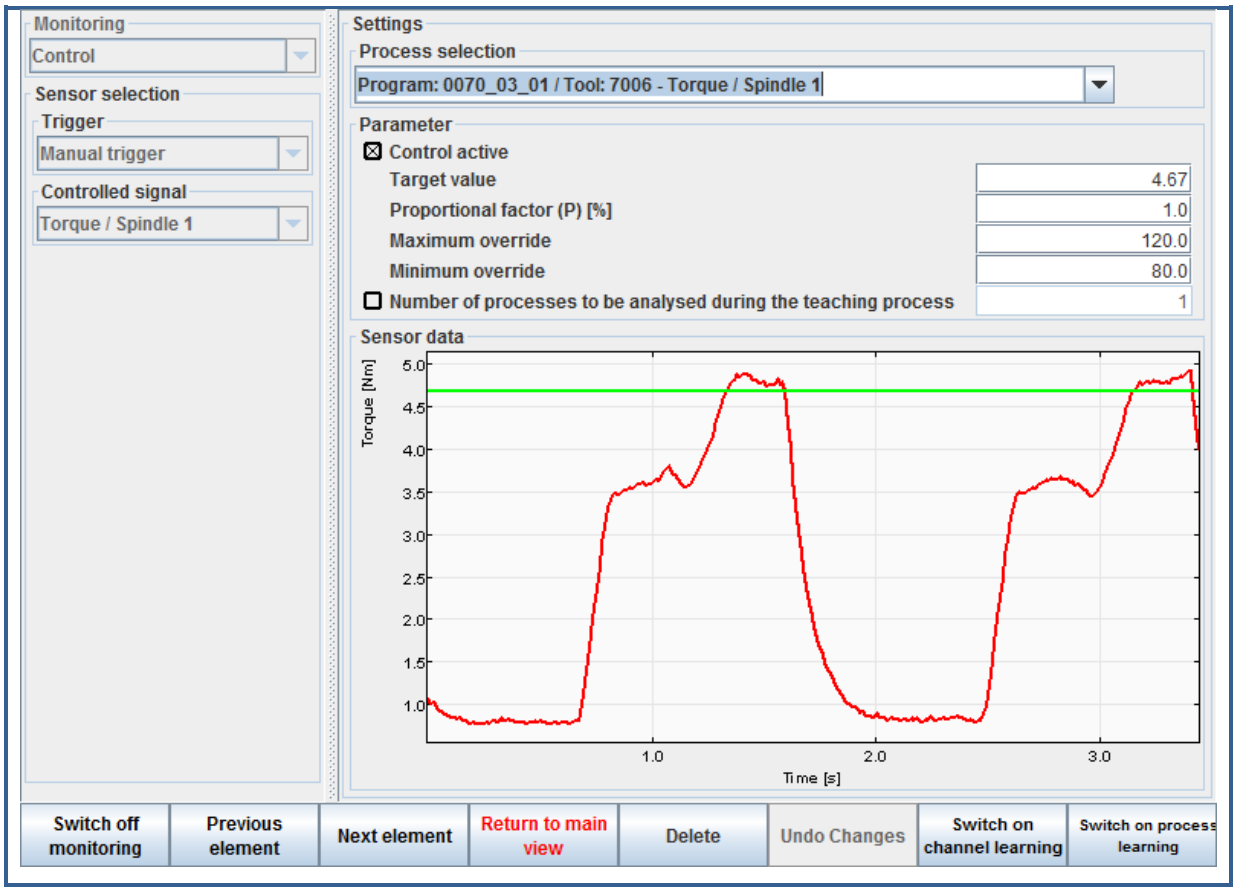


The corresponding parameters can be manually adjusted in order to optimize the selected process:
Monitoring active: When inactive, processes are recorded but not monitored
Wear limit: Value for the wear limit (yellow)
Missing limit: Value for the missing limit (green)
Relearn: The selected process is relearned with the number of processes entered on the right

1.1.3 Control monitoring channel

1.1.3.1 General

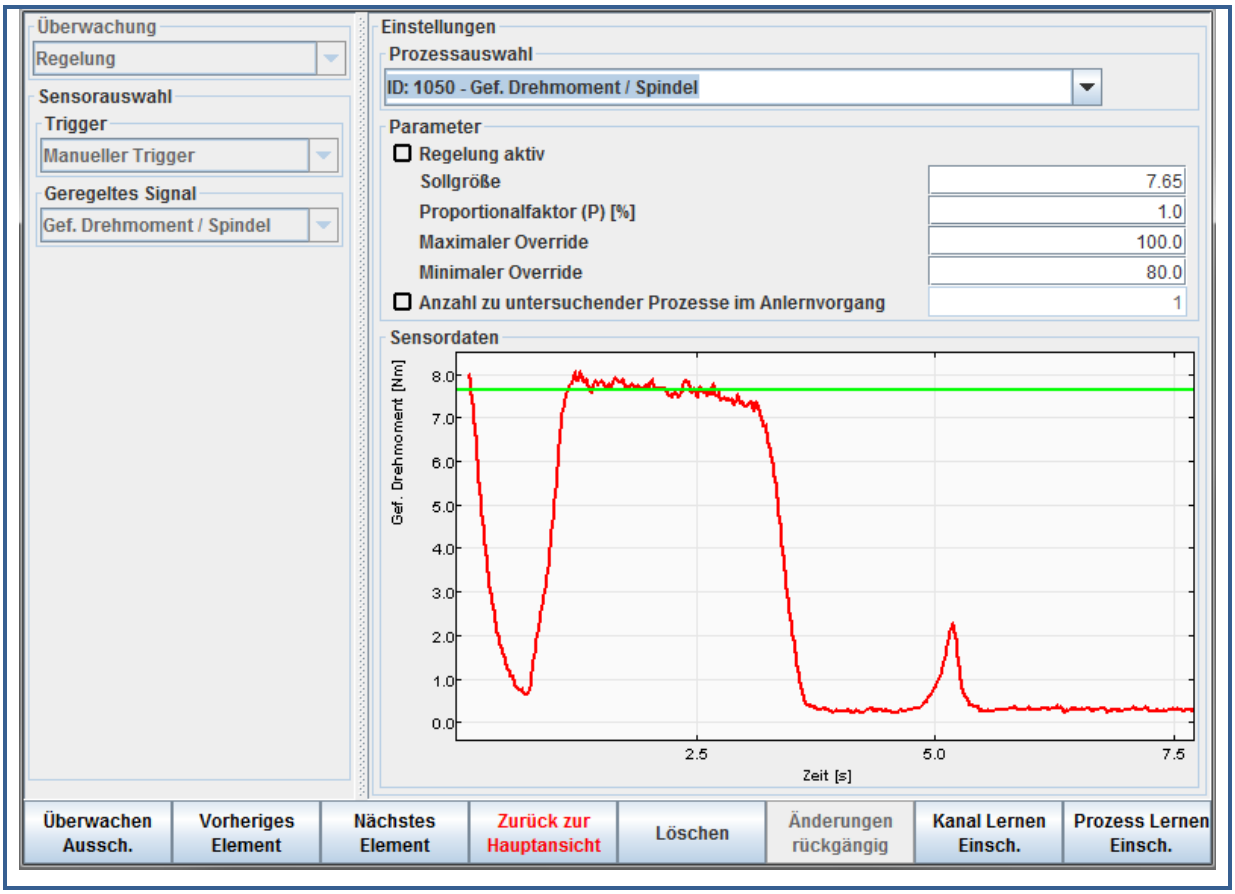
Select monitoring channel → **Configuration**



- General settings are on the left
- Process-specific parameters are on the right
- The signal paths learned for the selected process are shown in the graphic
- The "default" process acts as a learning template for new processes

1.1.3.2 Parameters

Select process → Press ENTER

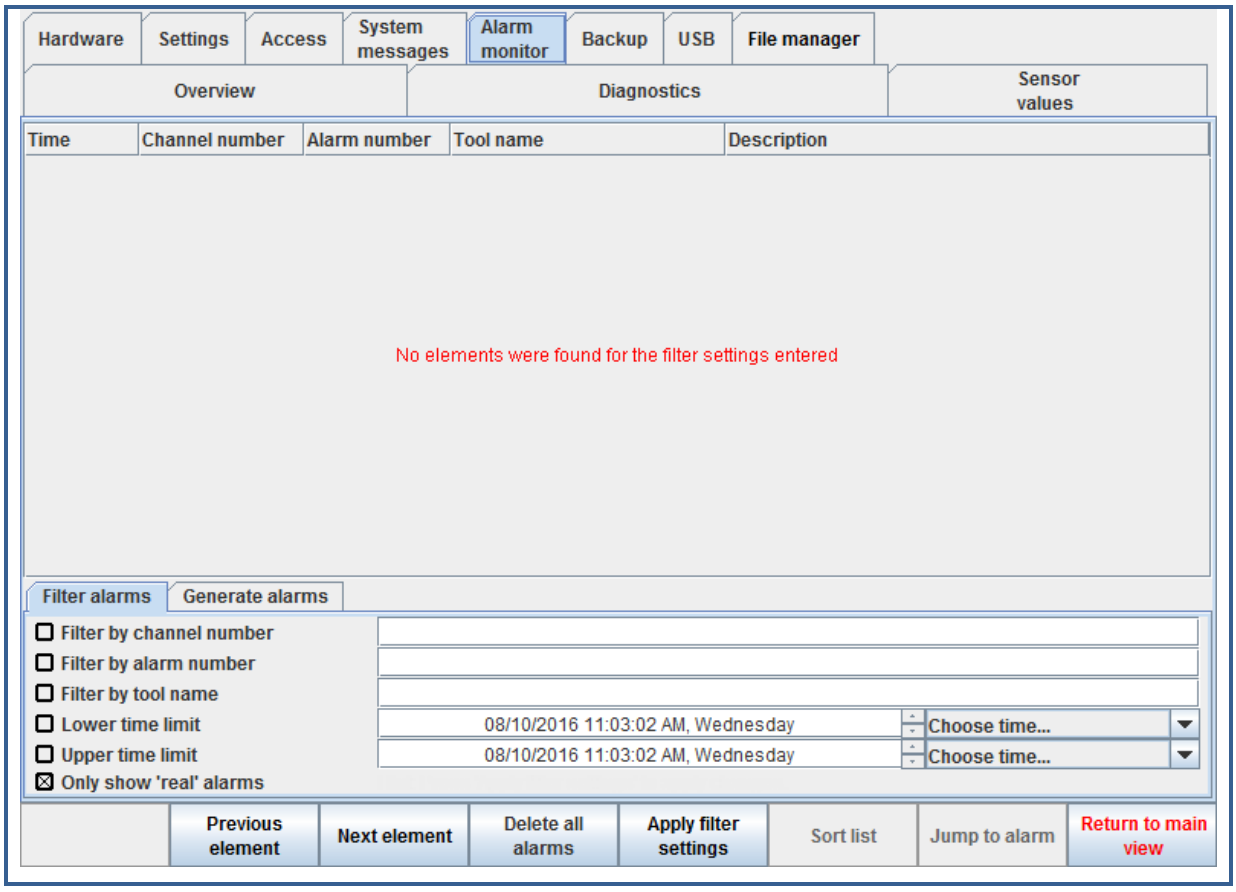


The corresponding parameters can be manually adjusted in order to optimize the selected process:
Control active: When inactive, processes are recorded but not controlled
Target value: Corresponds to the ideal processing torque learned
If the spindle torque exceeds this target value, the feed override is reduced
If the spindle torque falls below this target value, the feed override is increased
Proportional factor: Indicates the extent of the response to deviations from the target value (default = 1.0)
Max. override: Upper limit of the control range in %
Min. override: Lower limit of the control range in %
Number of processes to be analysed…: Number of processes to be learned in order to determine the target value

1.2 Procedure for false alarms

Check the error in the alarm monitor

Service → **Alarm monitor**



Select the relevant channel and process

Return to main view → **Select channel** → **Configuration** → **Select process** → **Press ENTER**

Check limits and optimize them if necessary
Start a new process

Optimization not possible → Relearn the relevant process (possibly increasing the number of learning processes)

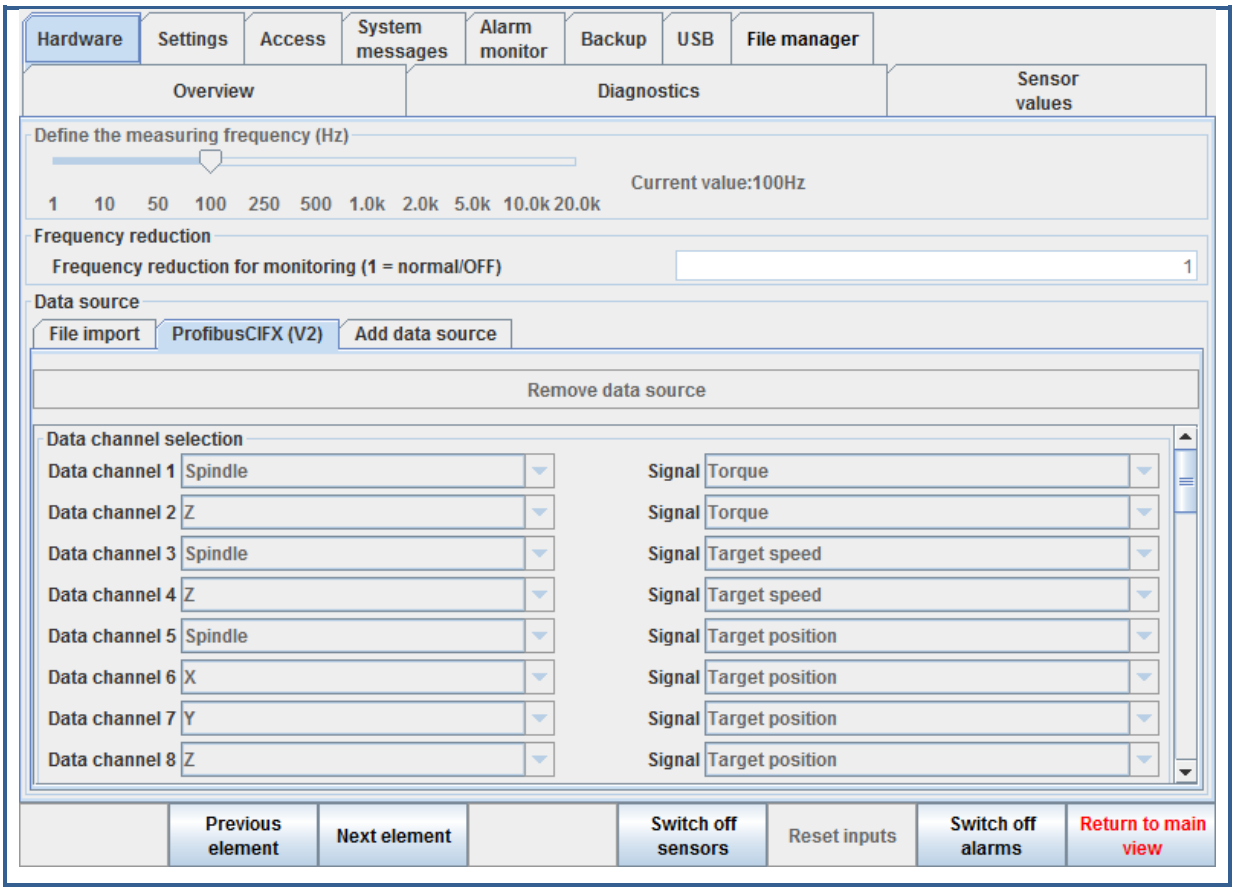
Select channel → **Configuration** → **Select process** → **Relearn process**

2 General operation

2.1 Switching off alarms

2.1.1 General

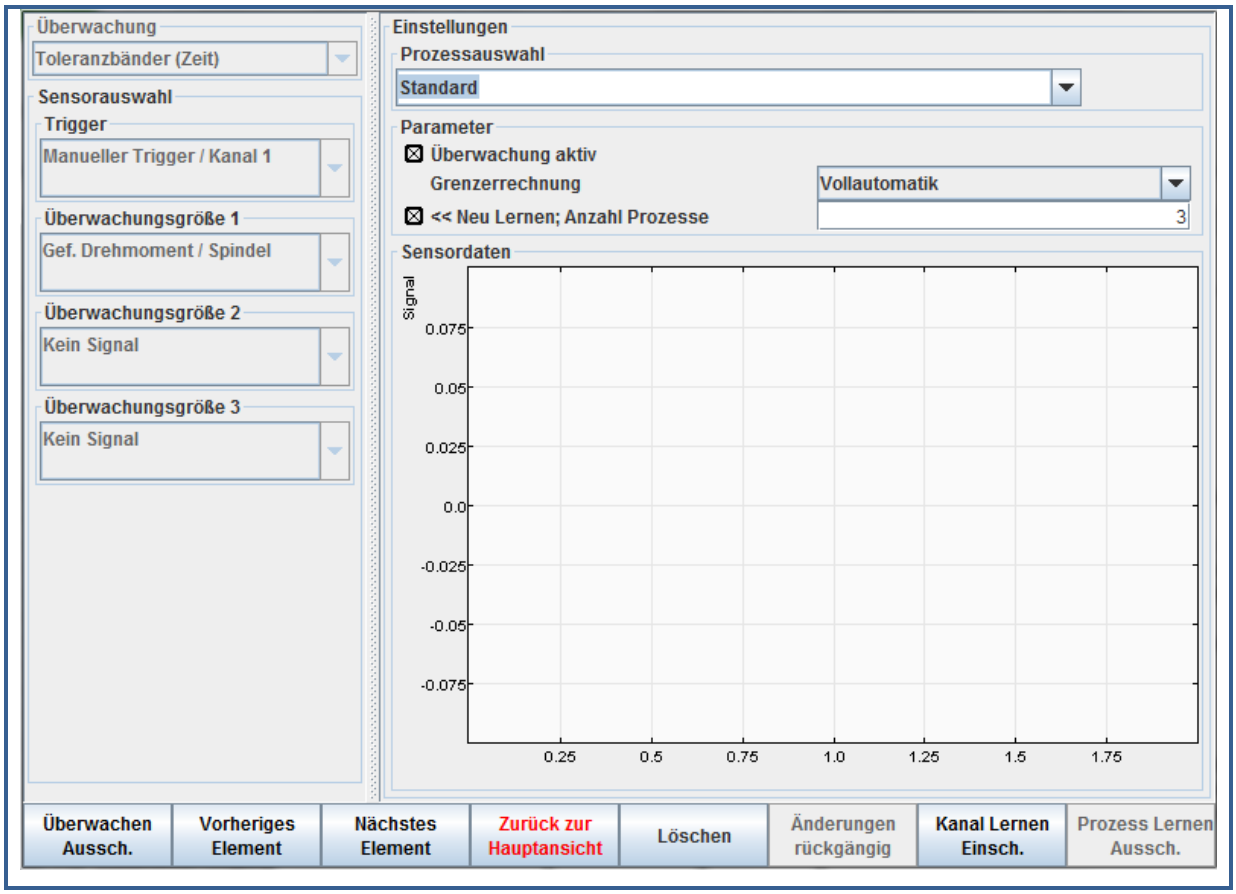
Service → **Hardware** → **Switch off alarms**



No information is sent to the machine when alarms are switched off in general. No machine response takes place.
If there are issues with individual processes, the processes in question should be deactivated specifically. Please refer to 2.1.2.

2.1.2 Deactivating individual processes

Select channel → **Configuration**

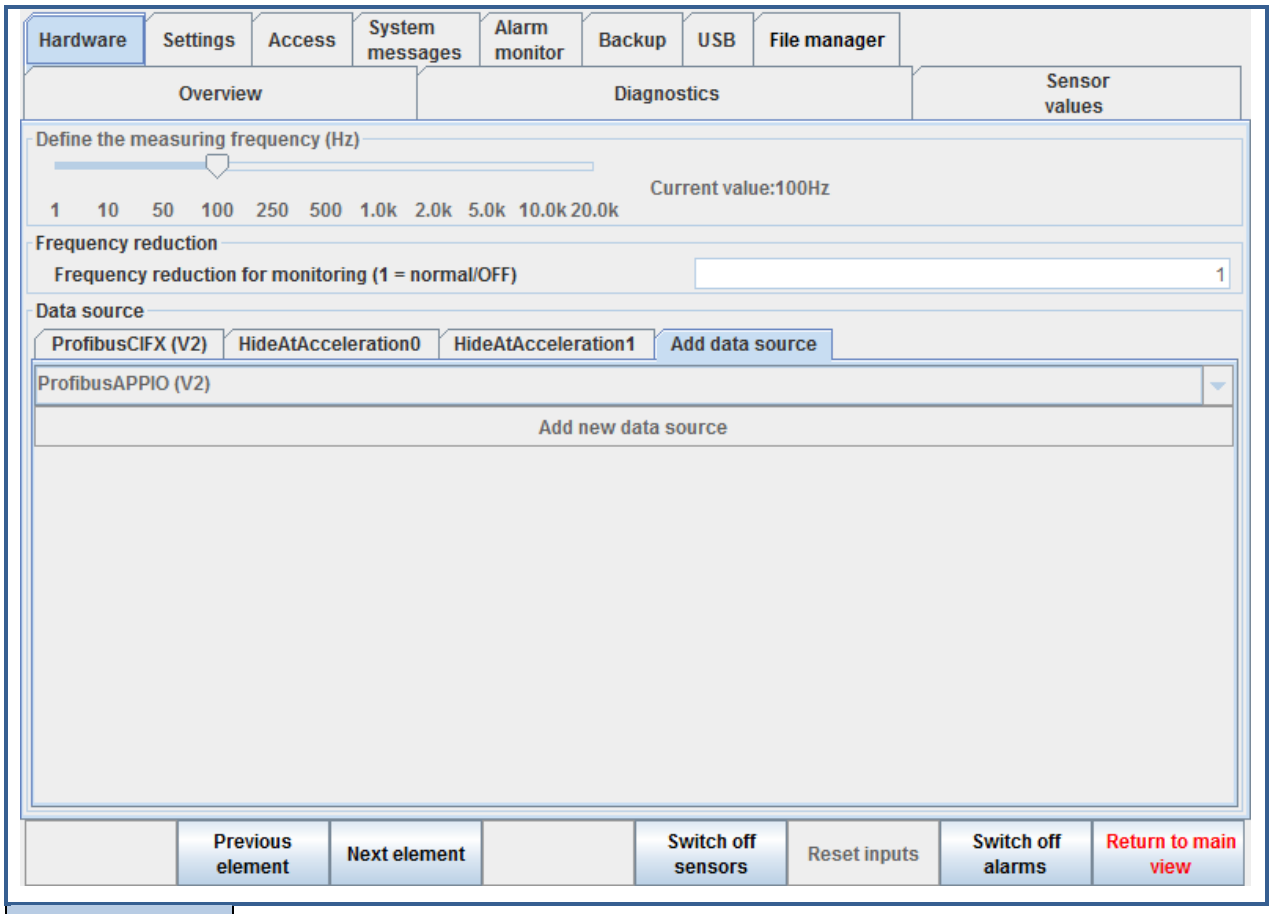


- Select the required process in "Process selection"
- Deselect "Monitoring active"

Observation of the signal path can continue and if necessary monitoring can be reactivated using this method.

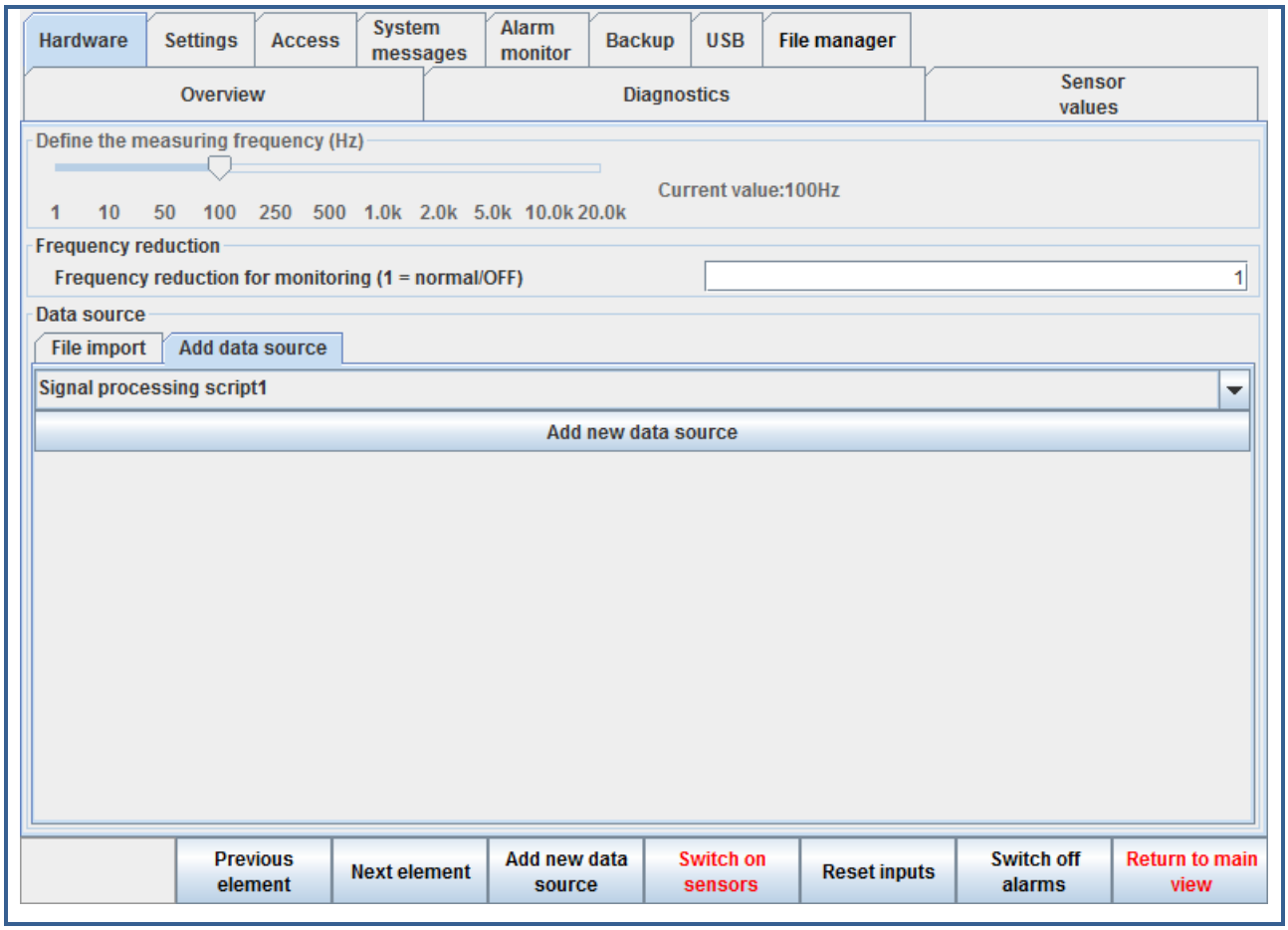
2.2 Add new data source

Service → **Hardware** → **Switch off sensors**

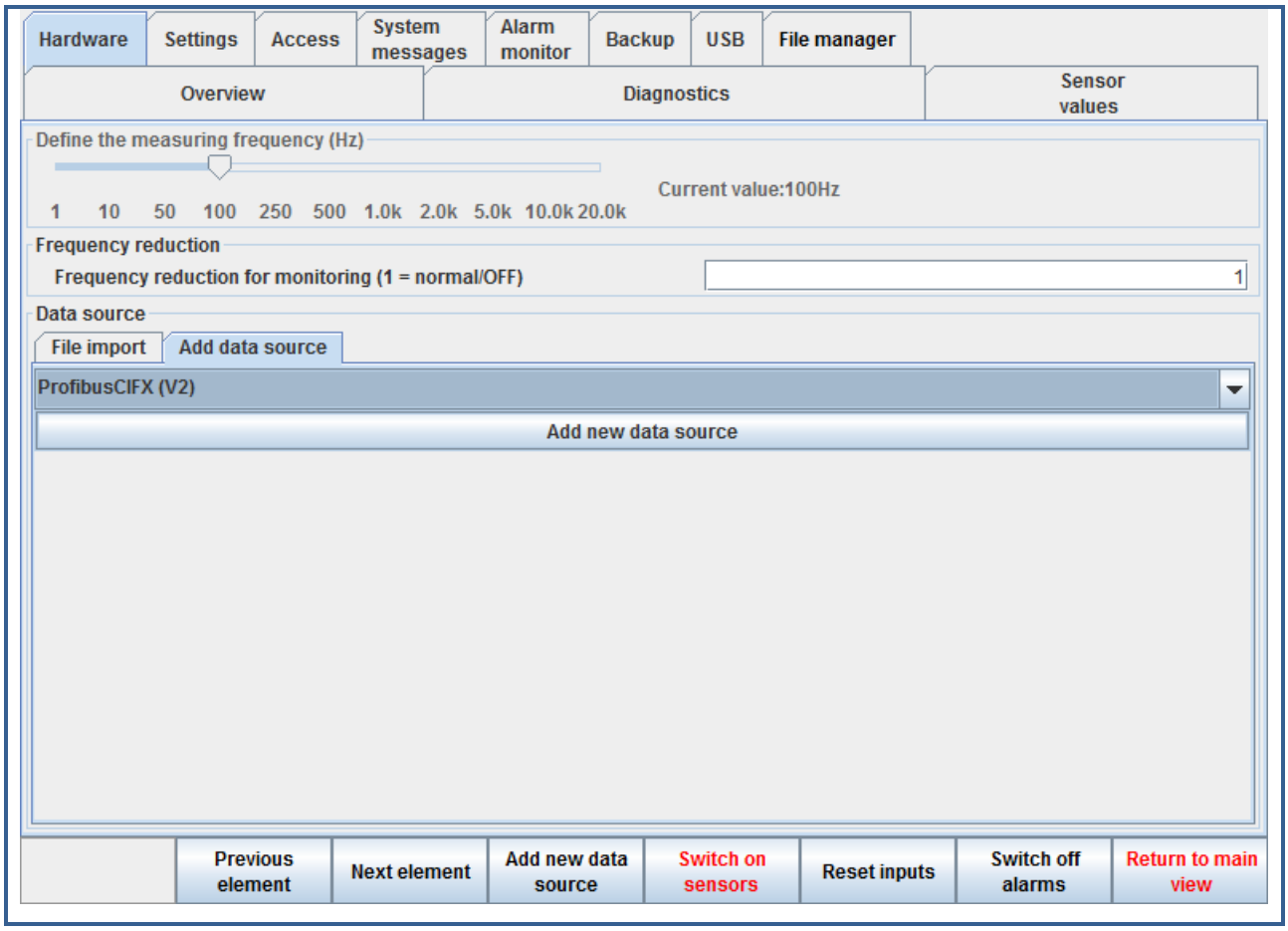


Add data source

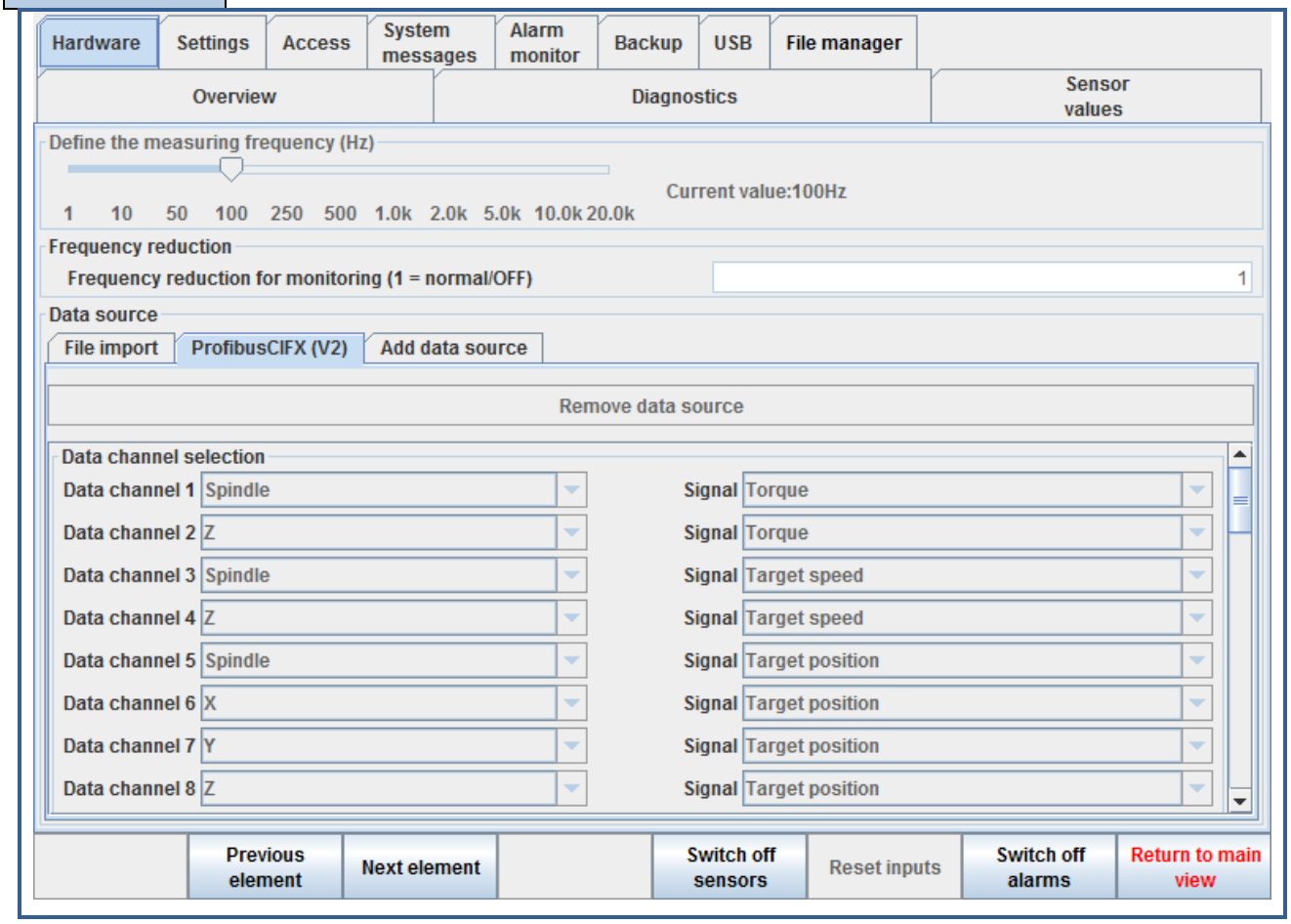
- Select the needed driver



➔ Add new data source

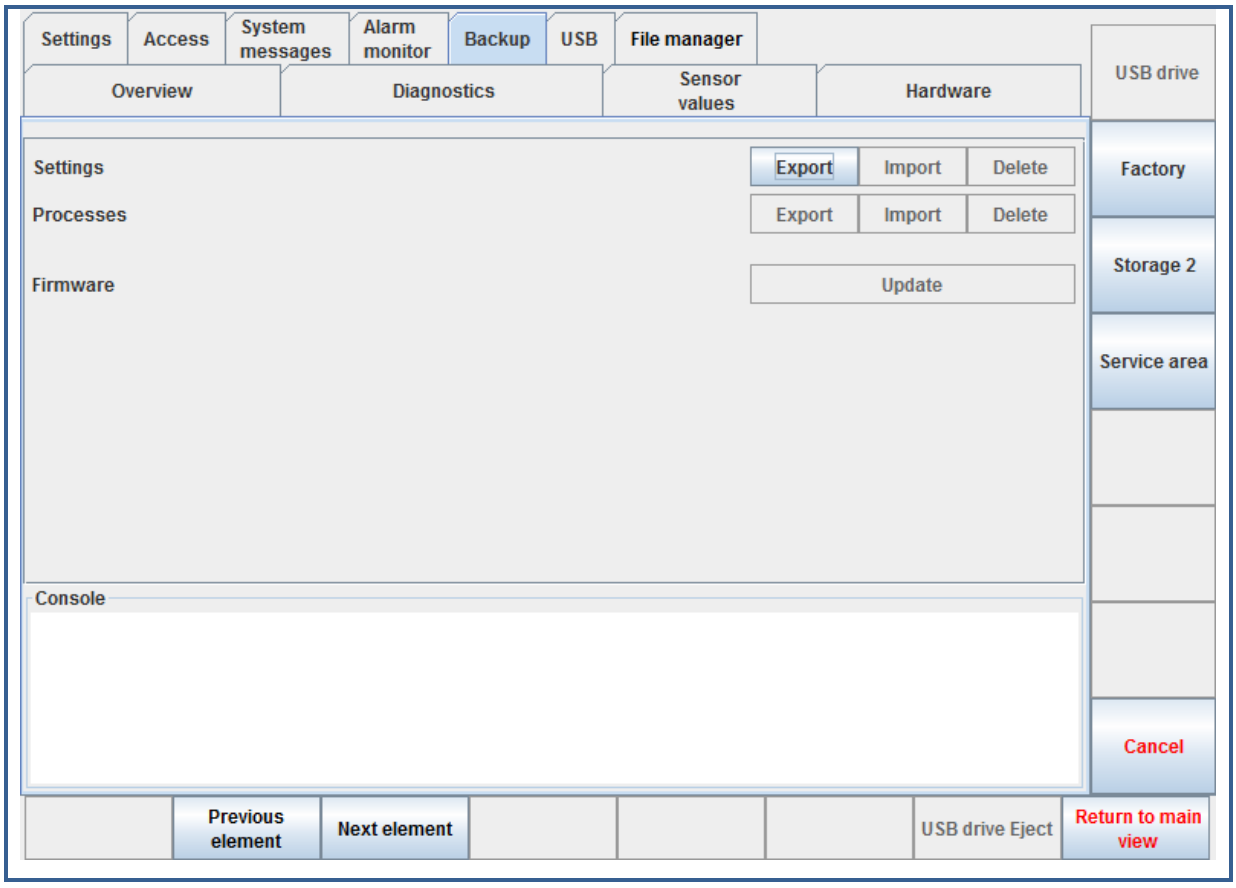


Switch on sensors



2.3 Import Export Settings

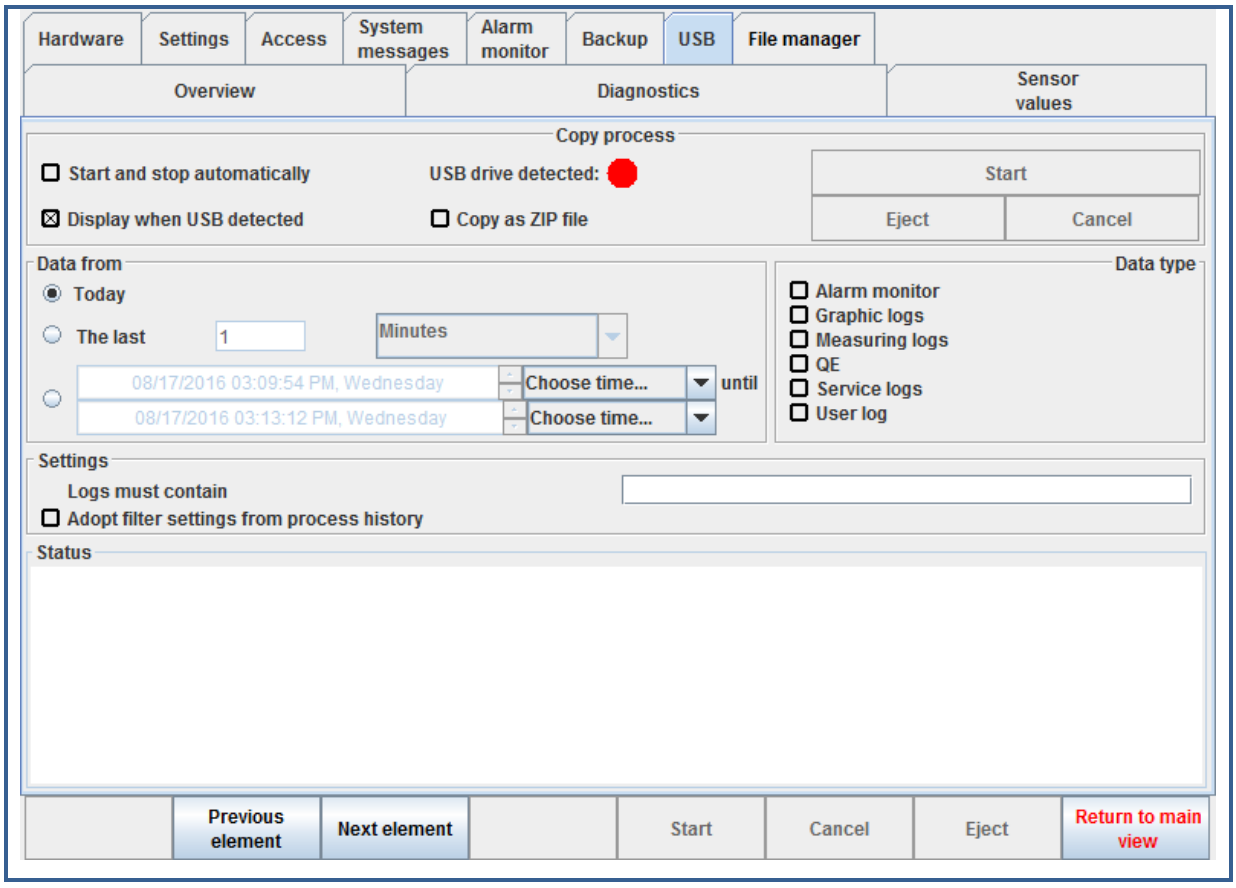
Service → **Backup**



- Select Import/Export/Delete from Settings or Processes you needed
- Choose Backup device or Cancel
- Confirm with second push “Really”
- Successful

2.4 Secure protocols

Service → **USB**



- Plug in a USB Stick in ToolScope , and wait for detection
- Select data
- Start data Transmission note status window
- Successful
- Plug out USB Stick

