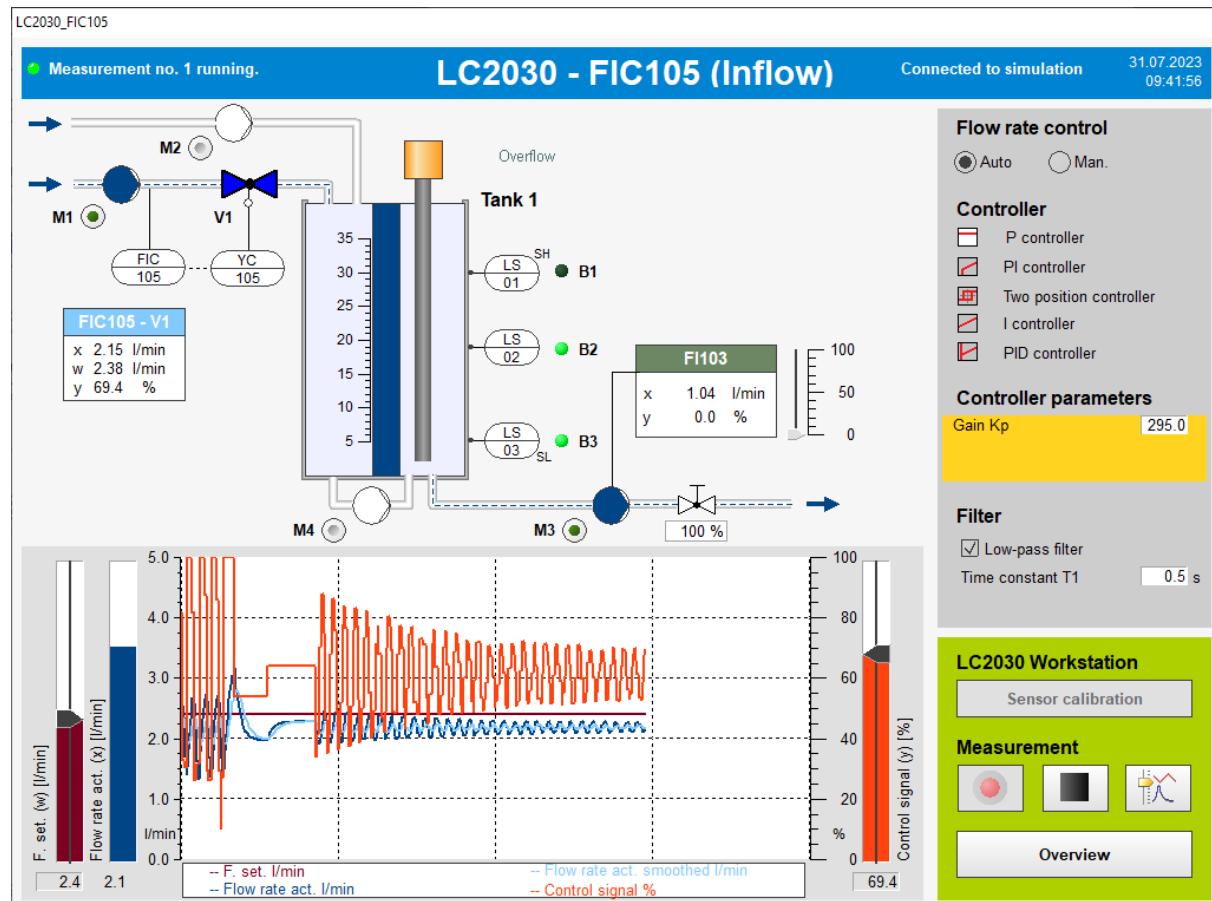


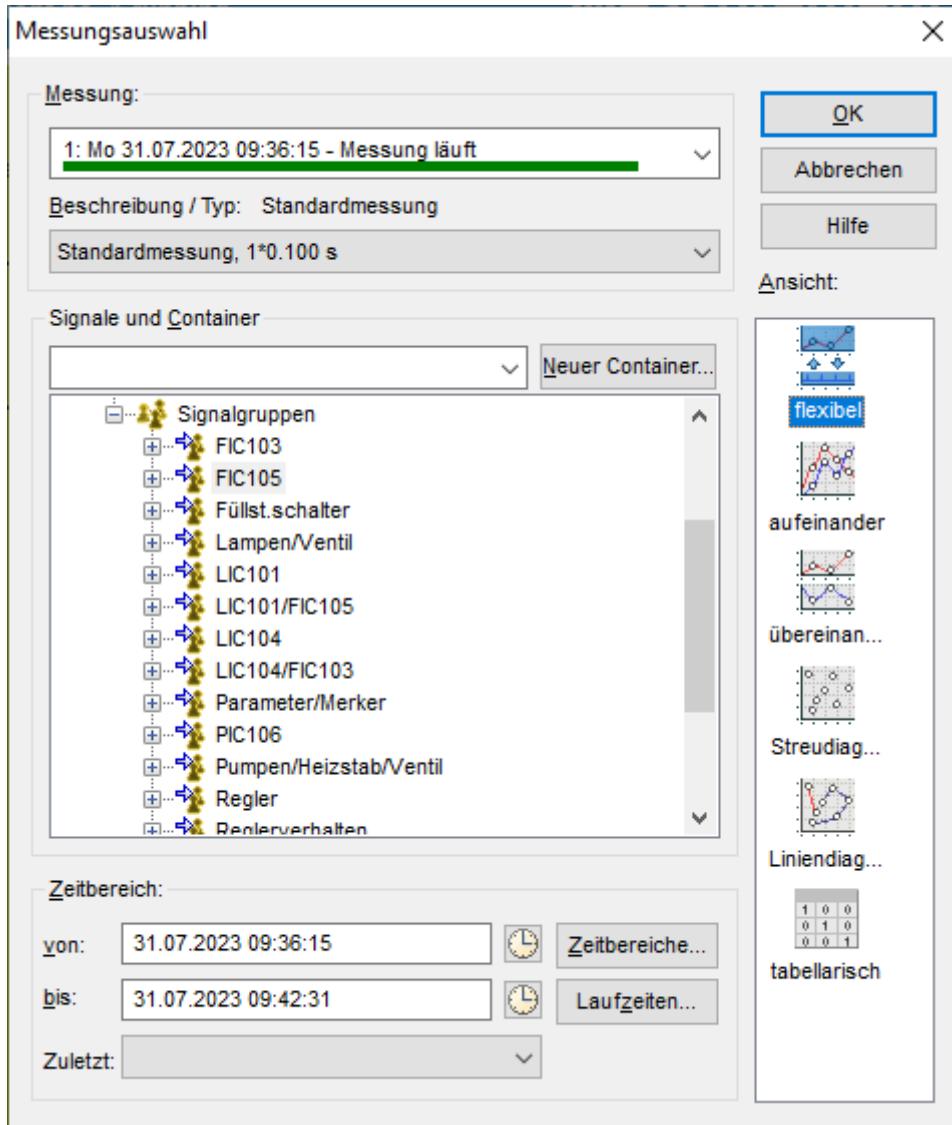
ZIEGLER NICHOLS II

This is a short tutorial on how to use the Ziegler Nichols II method on the FIC105 (flow control inflow) with the LC2030 Training. The original set of simulation parameters is active.

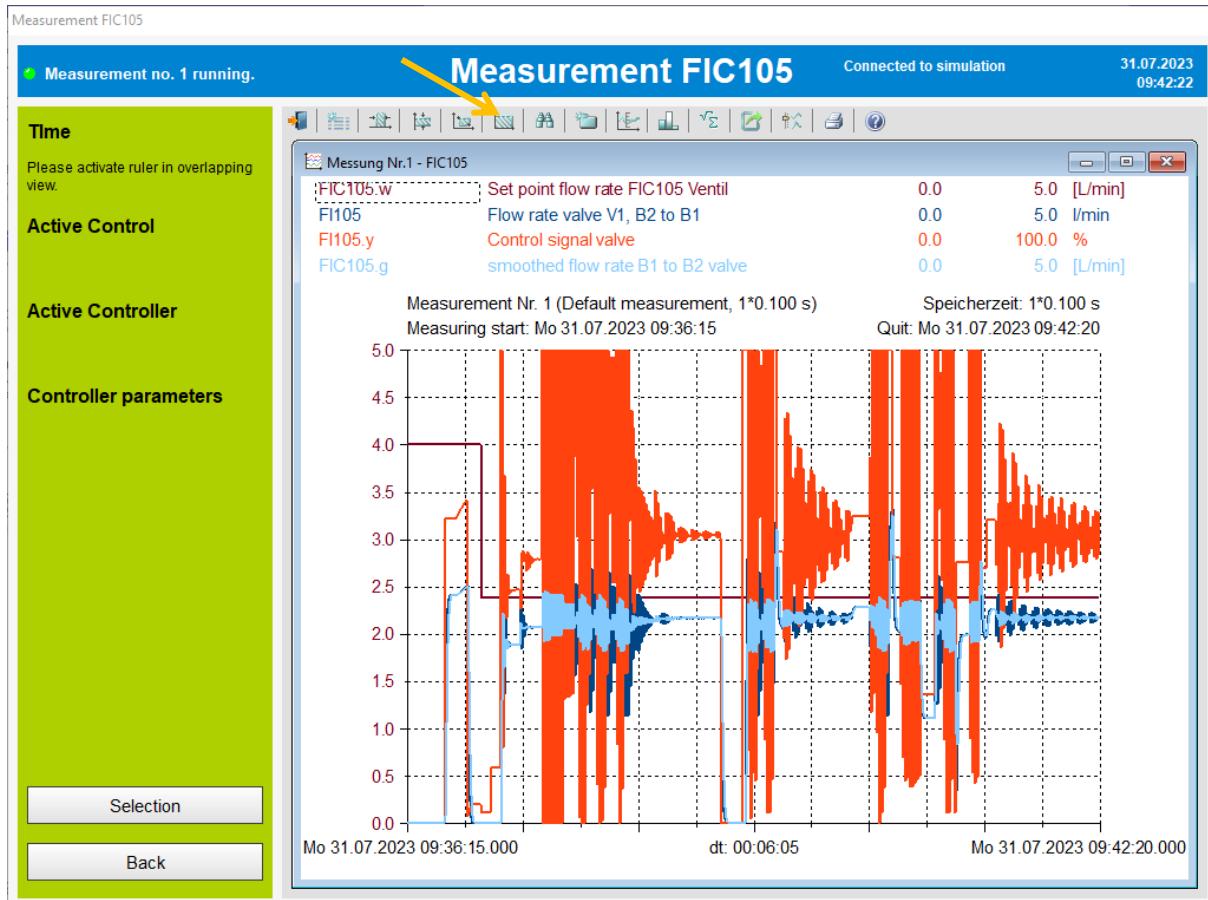
- Go to FIC105,
- Start measurement,
- Start pump M1 and M3 manually,
- Choose the P controller (gain between 290 and 300),
- Choose a set point between 2 and 3,
- Adjust the control signal manually to get a flow rate near your set point (if you start the controller immediately you'll get a bang bang control)
- Set the controller to auto mode
- You'll see a similar behaviour as below



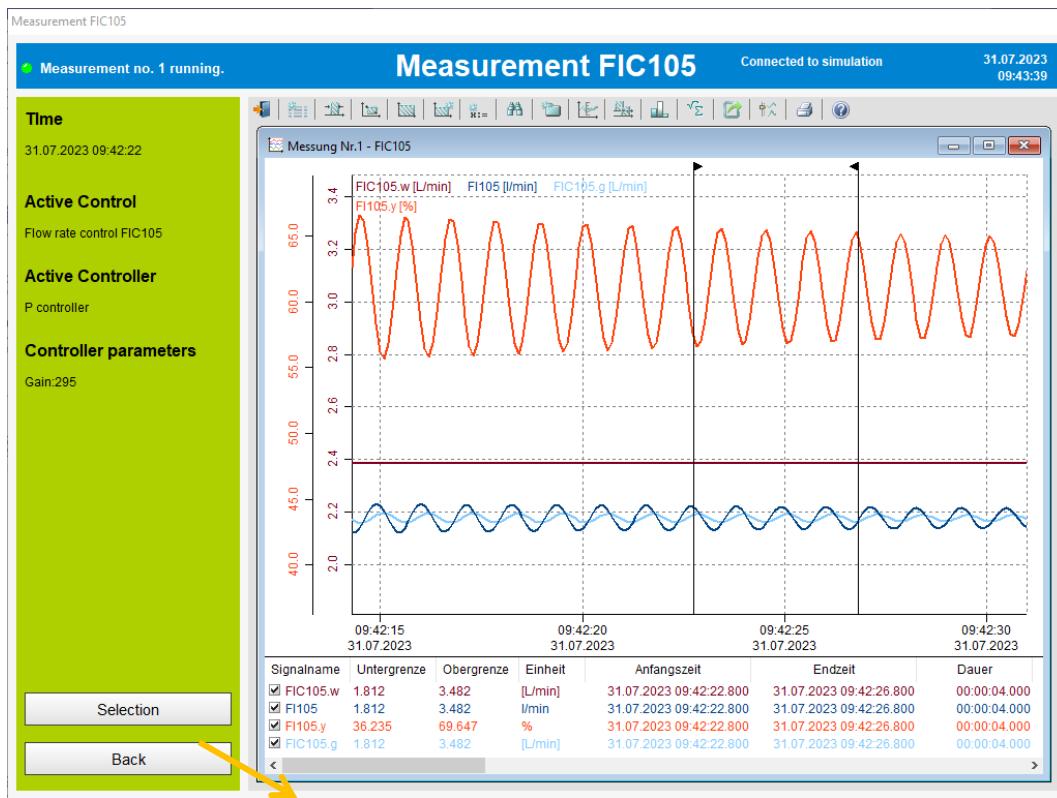
- Go to measurement view
- Choose selection
- You'll get the following window



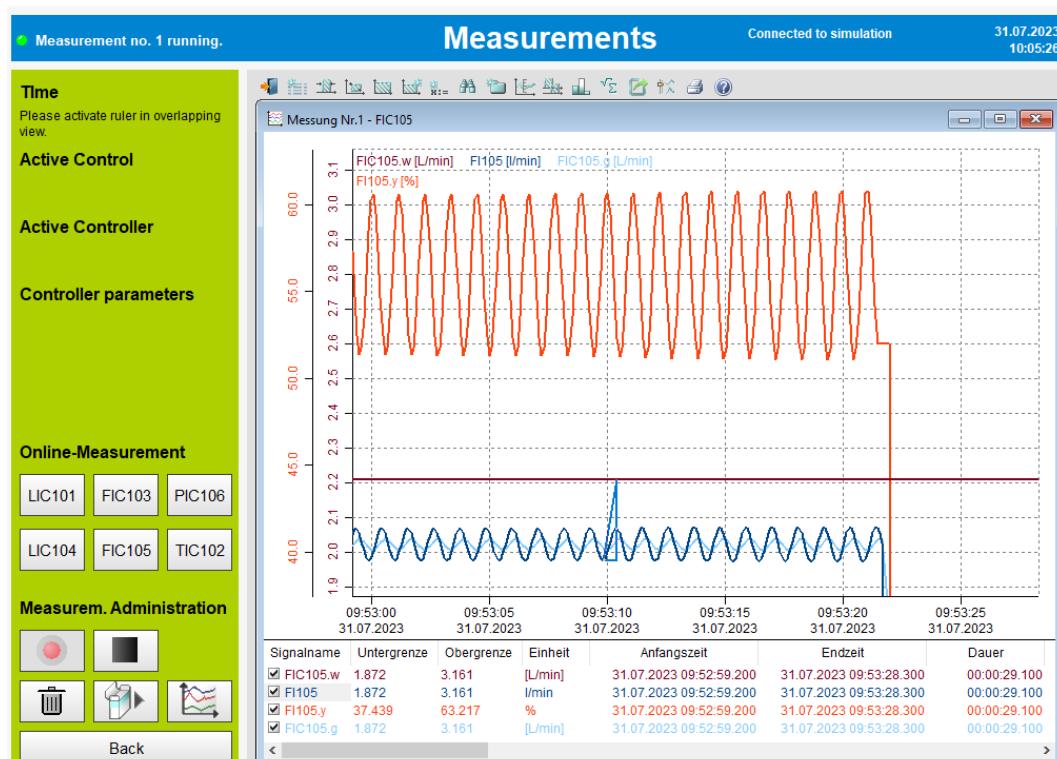
- Choose latest measurement (or running measurement) on the dropdown menu
- Choose signal group FIC105
- Choose view flexible
- You'll get the following view



- Choose drag and drop button to choose the correct time frame
- In the flexible view you may also scroll on time and value axes to zoom in and out
- You'll get the following window



You check marks to hide several lines



Mark one signal in the table below the graph, to measure this signal's graph by click and pull on the graph. In this example it is the dark blue line for FI105.