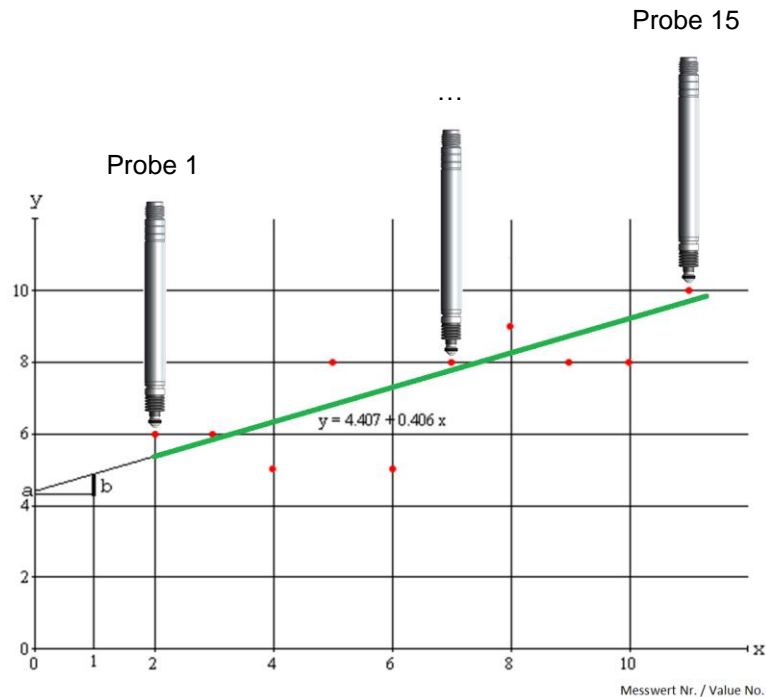


## 1. Introduction

The ComGage special measurement mode “Special calculations with best-fit line” ( wgl031 ) allows to determine the angle of a best-fit line for up to 15 probes, as well as the distance of the specific measuring points to this calculated best-fit line. The current measuring values or the last saved values of the probes can be used for the calculation.

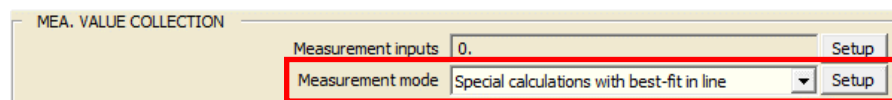


### Important notes :

- The software license Module 72 ( ComGage Special Modules ) is required for this special measurement mode.
- If current values of the probes shall be used for the calculation, the characteristics of the probes either have to be displayed in the display window of the related test step or used in a test step function ( e.g. “Save measured values” ). Otherwise, ComGage does not update the values of these characteristics and the special measurement mode is unable to perform the calculation.

## 2. Configuration

The special measurement mode has to be selected for the corresponding characteristic :



The settings for the measurement inputs are ignored. But for performance reasons we recommend the use of a constant, e.g. 0.



The special measurement mode is configured in the following dialogue, which is opened by clicking the *Setup* button :

The following settings can be configured in the setup dialogue :

- **Mode**

Here, the mode for the calculation of the measurement result can be selected.  
The following modes are available :

- **Angle of best-fit line ( in ° )**
- **Distance between Probe x and best-fit line**

- **Current probe values / Last saved probe values**

These options determine, if the current or the last saved characteristic values of the probes are used for the calculations.

- **Probe 1 ... Probe 15 : Characteristic**

Here, the characteristics of the probes are selected, whose values shall be used as Y-coordinate.  
Probes which are configured with “---” are not used for the calculation of the best-fit line.

- **Probe 1 ... Probe 15 : X-Coordinate**

The X-coordinates of the activated probes have to be entered here ( in mm ).

### 3. Use of the special measurement mode

Out of the characteristic values of the probes and the X-coordinates, the special measurement mode first calculates the best-fit line and then the measuring result, depending on the selected mode.  
The result of the calculations is then used as the measuring value of the characteristic.  
If the special measurement mode is unable to perform the calculations, the measuring result is 0.