



1. Introduction

The ComGage special measurement mode “Static measurement with value correction by table” (wgl027) allows the correction of the received measuring values during a static measurement.

Up to 19 reference points with their related correction values can be entered.

Between two of those reference points, the correction value is calculated by linear interpolation.

When a characteristic with this measurement mode is calibrated, the correction values are ignored.

Only afterwards, they are applied to the measuring values.

Via register R700, the measuring value and the correction value of the reference points can be edited out of a running test scheme / test order (see chapter 3).

2. Configuration

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

MEA. VALUE COLLECTION

Measurement inputs: M1 Setup

Measurement mode: Static measurement with value correction by table Setup

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

	Measuring Value	Correction Value
<input checked="" type="checkbox"/>	-1	0.003
<input checked="" type="checkbox"/>	-0.5	0.001
<input checked="" type="checkbox"/>	0	0
<input checked="" type="checkbox"/>	0.5	-0.002
<input checked="" type="checkbox"/>	1	-0.006
<input type="checkbox"/>	0	0
<input type="checkbox"/>	0	0
<input type="checkbox"/>	0	0
<input type="checkbox"/>	0	0
<input type="checkbox"/>	0	0
<input type="checkbox"/>	0	0
<input type="checkbox"/>	0	0
<input type="checkbox"/>	0	0
<input type="checkbox"/>	0	0
<input type="checkbox"/>	0	0
<input type="checkbox"/>	0	0
<input type="checkbox"/>	0	0
<input type="checkbox"/>	0	0

OK Cancel

The following settings can be configured in the setup dialogue :

Measuring Value

In the lines which were activated via the related checkboxes, the required reference points can be entered here.

These are possible measuring values of the characteristic.

Correction Value

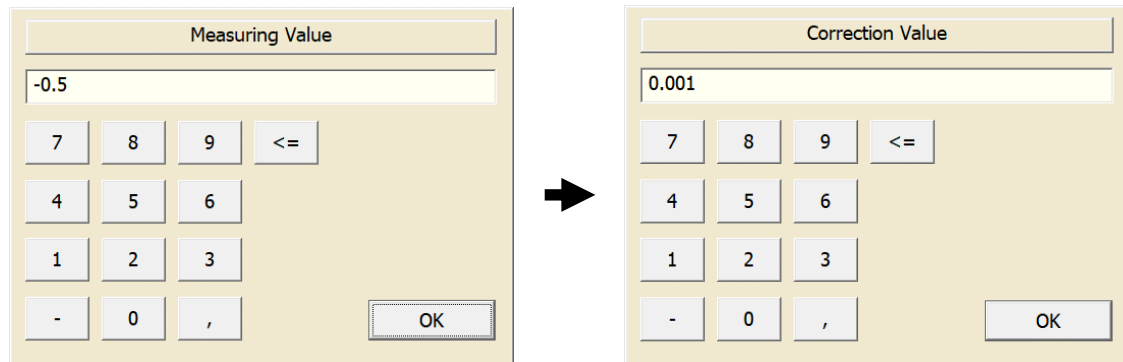
In activated lines, the correction values can be entered here, which shall be applied to the measuring values at the corresponding reference points.

Please note that the correction values are always subtracted from the measuring values.

Between two reference points, the correction value is calculated by linear interpolation out of the correction values of the two reference points between which the measuring value lies (see chapter 4).

3. Note for using the special measurement mode

The register R700 can be used in a running test scheme / test order to edit specific reference points. For this, the register has to be set to a value between 1 and 19, depending on which reference point shall be edited. A dialogue window opens, in which first the measuring value and then the correction value can be entered :



R700 = 1 → Reference point 1 in the list
 R700 = 2 → Reference point 2 in the list
 R700 = 3 → Reference point 3 in the list
 R700 = ...

Attention : The value of the register R700 always relates to the number of the line in the table. It does not matter if lines in the table are empty. All lines are counted, not only the activated ones.

After the reference point has been edited, the register R700 is automatically set to 99.

If the register R700 is set to a value which belongs to a deactivated reference point or does not belong to a reference point at all, this has the effect that the register R700 is set to 99 directly after it is set to this invalid value. No dialogue window is opened.

4. Example

In this example, we assume that the special measurement mode has been configured as shown in chapter 2.

Measuring Value	Correction Value
-1	0.003
-0.5	0.001
0	0
0.5	-0.002
1	-0.006

For measuring values ≤ -1 , the correction value is 0.003.

If the received measuring value is -0.5, 0.001 is subtracted from it, which means it is corrected to -0.501.

For measuring values ≥ 1 , the correction value is -0.006.

If the measuring value lies between two reference points, e.g. at 0.8, the correction value is calculated by linear interpolation :

$$\text{Correction value} = -0.002 + (-0.006 - (-0.002)) \times (0.8 - 0.5) / (1 - 0.5) = -0.0044$$

So, the measuring value is corrected to $0.8 - (-0.0044) = 0.8044$.