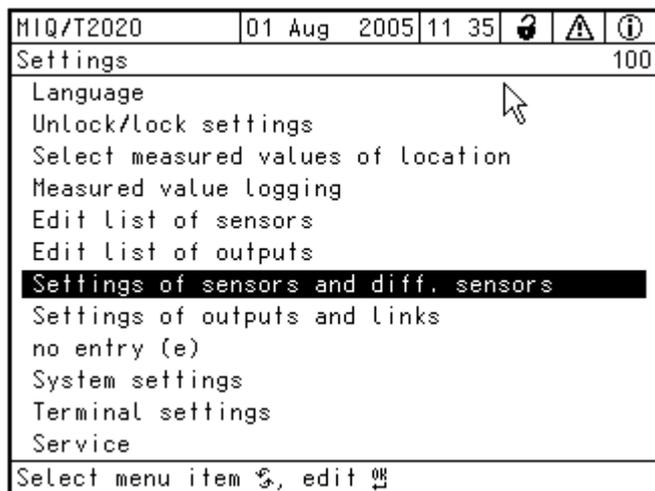




2-point calibration in standard solutions (as the initial calibration and for checking the slope)

Procedure:



- 1 Call up the Einstellungen/Settings menu with **(S)**. Highlight the *Settings of sensors and difference sensors* menu with **(G)** and confirm with **(OK)**.
- 2 Highlight the sensor to be calibrated and confirm with **(OK)**.
- 3 In the setting menu of the sensor, set the 2 point standard (3) calibration procedure.
- 4 Switch on the initial calibration if necessary (first calibration with new electrode).
- 5 Highlight the *Save and quit* menu item and confirm with **(OK)**.
- 6 Switch to the measured value display with **(M)** and highlight the sensor to be calibrated with **(G)**.
- 7 Press **(C)**. The message *maintenance condition* comes up.
- 8 Press **(OK)** to continue.
- 9 Press **(OK)** to continue.
- 10 Take the sensor out of the test solution, unscrew the protective hood, clean the sensor with the electrode and protective hood, rinse, reassemble.

Maintenance condition:
Linked outputs are frozen.

Continue

Note: In case of electrode change perform initial calibration. Before each calibration, measure and enter potassium content (see settings)

Continue

Cal.: 2 POINT STANDARD (3)
 Have standard 1 ready for
 calibration
 Continue

Select standard concentration
 1 mg/L NH4-N

* Rinse electrode
 Continue

* Immerse electrode in
 standard.
 * Wait for a stable measured
 value.
 Continue

Electrode potential: 0 mV
 Please wait...


Cal.: 2 POINT STANDARD (3)
 Determine calibration values
 for standard 1
 Have standard 2 ready
 Continue

- 11 If the required calibration procedure is displayed, press **OK** to continue.

 If a different calibration procedure is named, press **ESC** to escape from the calibration procedure and set the correct calibration procedure (see previous page).
- 12 Set the concentration of the first standard solution (lower concentration) with **↺** and press **OK** to continue.
- 13 Rinse the sensor and and press **OK** to continue.
- 14 Immerse the sensor in the first standard and press **OK** to continue.
- 15 The electrode voltage is measured.
 As soon as the measured value is stable, the next display appears.
- 16 The calibration values for the first standard have been determined.
 Press **OK** to continue.

Select standard concentration
10 mg/L NH₄-N

- 17 Set the concentration of the second standard solution (higher concentration) with  and press  to continue.

* Rinse electrode

Continue

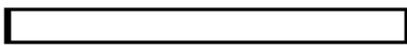
- 18 Rinse the sensor and press  to continue.

* Immerse electrode in standard.
* Wait for a stable measured value.

Continue

- 19 Immerse the sensor in the second standard and press  to continue.

Electrode potential: 60 mV
Please wait...



- 20 The electrode voltage is measured. As soon as the measured value is stable, the next display appears.

Cal.: 2 POINT STANDARD (3)
Determine calibration values for standard 2

Continue

- 21 The calibration values for the second standard have been determined. Press  to continue.

```
Calibration successful
Conc. (NH4-N):      1.0 mg/L
Slope:              59.51 mV
Drift voltage:      0 mV
End of 2 POINT STAND. (3) cal.
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Continue

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After successful calibration:
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- * Submerge sensor in sample
- * Wait for stable value
- * Switch off maint. condition

Continue

- 22** The values for concentration (NH₄-N), slope and drift potential are displayed. The calibration is finished. Press **OK** to continue.

- 23** Press **OK** to close the message *After successful calibration*. The measurement display comes on, flashing. This means that the sensor is still in maintenance condition.

If the calibration was not successful, a corresponding message appears. More information on this is available in the log book and calibration history (see system operating manual).

Resuming measurement:

- 24** Submerge the sensor in the sample.
- 25** Wait until the measured value is stable enough to switch off the maintenance condition.
- 26** Highlight the sensor and press **OK**. The *Display / Options* menu appears.
- 27** Highlight the menu item *Switch maintenance condition on/off* and press **OK**.
- 28** Highlight *Continue* and press **OK** to confirm.
- 29** Press **M** to return to the measurement screen.

Note:

The determined calibration data is stored in the sensor. This means the current slope and drift potential is stored.

Subsequently carry out a calibration using a reference value.