

Calibrate PM2000 conductance.

Clean the conductivity measuring cell at regular intervals using a toothbrush and standard dishwashing detergent.

The graphite is open-pored and if the water contains oil, there is a possibility that the oil will penetrate the pores of the graphite surface. This can result in extreme measurement errors. In this case, it makes sense to remove the oil on the measuring surfaces of the conductivity measuring cell over a longer period of time, e.g. 3 days, in a strongly alkaline solution, e.g. water with a little cleaning powder from dishwashers or washing machines. It is advisable to move the measuring cell regularly in the cleaning solution.

A closed water film should be visible on clean graphite electrode surfaces after rinsing with tap water.

It is not usually necessary to recalibrate the conductance measuring unit on the PM 2000.

Exceptions:

The conductance measuring cell is replaced, or if the measured conductance values appear unreliable, it makes sense to check the calibration.

You will need 1 x calibration solution and a narrow, tall container, e.g. drinking cup, screw-top jar, jam, pesto or similar.

Three calibration solutions are available :

1mol KCL calibration solution 111.8 mS / cm at 25°C

0.1mol KCL calibration solution 12.88 mS / cm at 25°C

0.01mol KCL calibration solution 1413 µS / cm at 25°C

It is sufficient if you select a calibration solution that corresponds to your application conductance. Calibration should be carried out at room temperature and the calibration solution should be close to, ideally at, 25 °C.

Dry the measuring cell as well as possible so that no tap water adhering to the measuring cell dilutes the calibration solution.

Fill the glass with the calibration solution until the cross hole is under water when the conductivity cell is immersed.

Immerse the measuring cell in the calibration solution.

In the PM 2000, the SETUP is set to ZK 1.0000, RT 25°C, TK-NAT.

Wait 3...5 minutes, stirring occasionally, so that the integrated temperature measuring chip can adjust to the temperature of the calibration solution.

Now read off the displayed value by moving the measuring cell. Do the math:

Conductance of the calibration solution,	e.g. 12.88 mS / cm
----- =	----- cell constant= 1.2932 cm
Measured value of the device ⁹	.96 mS

Now set the CC to 1.2932 in SETUP.

If you now exit SETUP, the device will display a very precise value of 12.88 if you have done everything correctly.

Calibration is now complete and the measuring cell is calibrated with the device.