

## Operating manual

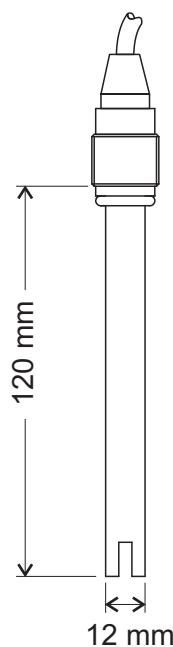
# LR ML

## Conductivity measuring cell

<b>General information</b>	The conductometric two-electrode measuring cell LR ML contains graphite electrodes in a plastic shaft. The measuring cell features a robust design, low maintenance and easy cleaning. A platinum measuring resistor Pt 1000 for temperature-compensated conductivity measurements is integrated additionally. The measuring cell is recommended for application in measuring ranges of approx. 100 µS/cm ... 20 mS/cm (depending on the meter). Note: If the measuring cell is to be used for control purposes, deactivate the automatic measuring range switch-over of the meter.
<b>Delivery</b>	All measuring cells are checked by the manufacturer prior to delivery. They are delivered in a condition ready to measure. The cell constant of the measuring cells is determined with high accuracy in KCl calibration solutions in the delivery condition.
<b>Storage</b>	Store the measuring cell in a clean and dry environment. Avoid mechanical stress!
<b>Calibration</b>	Rinse the conductivity measuring cell with water thoroughly and several times. Then rinse it with the KCl calibration solution. The determination or check of the cell constant is carried out in KCl calibration solutions corresponding to the intended measuring range and according to the operating manual of the meter. Note the limited shelf life of the KCl calibration solution!
<b>Aging</b>	Normally, the conductivity measuring cell does not age. Special measuring mediums (e.g. strong acids and bases, organic solvents) or temperatures that are too high may considerably reduce its lifetime. The warranty does not cover failure caused by measuring conditions and mechanical damage.

**Cleaning**

- Any mechanical impact on the conductivity measuring electrodes absolutely has to be avoided.
- If the conductivity measuring electrodes are polluted with fats and oils, clean the measuring cell with warm water and household washing-up liquid.
- To remove lime or hydroxide coatings on the conductivity measuring electrodes, we recommend to use acetic acid (10 %).
- Always rinse the conductivity measuring cell thoroughly with distilled water after cleaning.
- Cable connections and electrical connections have to be kept clean and dry!

**Technical data**

Recommended measuring range	100 µS/cm ... 20 mS/cm	
Cell constant	$1.0 \text{ cm}^{-1} \pm 20 \%$	
Materials	Shaft	Plastic (PSU)
	Electrodes:	Special graphite
	Connection head:	Plastic (ABS)
	Sealing:	Silicone
Temperature sensor	Integrated platinum measurement resistor Pt 1000	
Connection cable	1 m multi-wire, screened fixed cable without plug, twistable PG 13.5 screw coupling at the shaft	