

# TEST CELL FOR LIQUID DIELECTRIC MATERIALS

## LDZ-5/LD



### Field of application

The test cell LDZ-5/LD for liquid dielectric materials is designed according to the national and international standards DIN 53483 part 3 and VDE 0303 and IEC.

The LDZ-5/LD is applicable in connection with the DSP-based Dissipation Factor & Capacitance Measuring System LDV-5 or the Dielectric Analyzer DIANA. It is intended for measurement the capacitance ( $C_x$ ), the loss factor ( $\tan \delta$ ) and the relative permittivity ( $\epsilon_r$ ) of liquid insulating materials, especially insulating oils.

The test cell for liquid dielectric materials LDZ-5/LD consists of two coaxial stainless steel electrodes. The measuring electrode is shielded by a guard electrode for the elimination of stray capacitances. The temperatures of the measuring electrode and the high voltage electrode can be read by digital thermometers separately. Through the complete insulation of the live parts a safety operation is possible. With a liquid quantity of 30 ml only little quantities of the liquid insulating material will be needed.

## Technical parameters

Maximum test voltage	2 kV AC
No-load capacitance	$\leq 50 \text{ pF}$
$\tan \delta$ (air)	$\leq 3 \cdot 10^{-5}$
Electrode distance	2 mm
Electrode material	Stainless steel, precision manufactured
Liquid quantity	approx. 30 ml (max. 150 °C)
Operation temperature	+ 5 °C to + 60 °C
Storage temperature	- 15 °C to + 60 °C
Accuracy of the thermometer	$\pm 1 \text{ °C}$
Connections	<ul style="list-style-type: none"><li>• LEMOSA-socket for the measuring voltage</li><li>• LEMOSA-socket for the high voltage</li><li>• Lab socket for additional grounding</li></ul>
Dimensions (Ø x H)	approx. 150 mm x 200 mm
Weight	approx. 6 kg