

# Ry2

## Test Cell for Solid Insulants



This precision test cell is used for dielectric tests, i.e. it determines dissipation factor  $\tan\delta$  and dielectric constant on test objects of solid insulants such as paper and plastic foils, as well as the specific resistivity.

The test cell is equipped with a special shielded measuring electrode (so-called guard ring), which eliminates the partial capacitances, which would influence the test results. This new design is the result of longstanding experience in the field of test cell building and customer feedback. To heat up and to evacuate the test cell, we recommend our temperature controller type RY2-1 and our reliable vacuum pump type RY2-2.

### Advantages & Benefits

- The test cell is in accordance with international standards and specifications.
- Heatable up to 200°C
- Short heat-up time
- The measuring electrode can be removed from the test object while the bell jar is on the unit
- The pressure acting against the test object can be adjusted from outside and monitored at any time
- The test cell can be evacuated. Measurements can be carried out under protective gas

### Design Features

Basically, the test cell consists of a heatable, shielded plate capacitor (guard electrode capacitor). The heatable high-voltage electrode is insulated and mounted on the base plate. Two different types of electrodes are supplied: a flat one, and one with raised rim for impregnation. The measuring electrode is equipped with a guard ring and shielded. This separate unit with built-in heating is mounted on a support and can be moved vertically. The vertical movement is carried out from outside via a hydraulic system, which also allows for a steady increase of the electrode pressure against the test object. The test cell is protected by a bell jar and can be evacuated and filled with protective gas through the provided connections.

A safety switch allows measurements to be carried out only if the bell jar is put over the cell. The base plate comprises sockets for the measuring bridge, the test voltage as well as the temperature controller. The manometer indicates the specific pressure of the electrodes against the test object.



## Technical Specifications

- Test surface: a.  $\varnothing$  70 mm(38.5 cm<sup>2</sup>) b.  $\varnothing$  50 mm(19.6 cm<sup>2</sup>)
- Electrode material stainless steel, hardened
- Finish lapped
- Heating capacity 2 heating plates of 500 W each, 1000 W together
- Electrode temperature ambient temperature... 200° C
- Heating-up time  $\approx$  15 min.
- Temperature control with temperature controller type RY2-1
- Electrode pressure 0..10 N/cm<sup>2</sup>, continuously adjustable
- Max. test voltage: 2000 V RMS, 50Hz
- Test cell evacuation up to  $3 \cdot 10^{-2}$  Mpa
- Dimensions: 400 mm\*300 mm\*400 mm
- Weight: 15 kg

## Scope of Supply

1. Test cell for solid insulants type RY2, heating voltage 220V, 50 Hz (please specify in order)
2. 2 connecting cables to measuring bridge and power supply
3. Accessories and manual

(If the test cell is ordered after the purchase of the measuring equipment, please indicate type of measuring bridge and power supply)

## Optional

- **RY2-1:** Temperature controller, control range up to 200°C
- **RY2-2:** Vacuum pump equipment
- **1002:** Resonant power supply max. 2 kV

**For further information please contact:**

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