

# RY1 & SG121

## Test Cell for liquid Insulants



The precision test cell type **RY1** measures the dielectric properties of liquid insulants such as insulating oil, i.e. it determines the dissipation factor  $\tan\delta$  and the dielectric constant  $\epsilon_r$  as well as the specific resistivity.

The test cell has been designed as a cylindrical capacitor with a shielded measuring electrode (guard ring capacitor) thus avoiding partial capacitances, which might influence the test results.

The test cell's design is in accordance with the specifications of VDE 0303, 0370 (Fed. Republic of Germany), SEV (Switzerland) and the recommendations of CIGRE, IEC and ISO, as well as with ASTM standards (USA), and it can be used as a replacement Swiss product TETTEX2903.



The temperature controller type SG121 with digital temperature adjustment is used to heat up the test cell.

### Advantages & Benefits

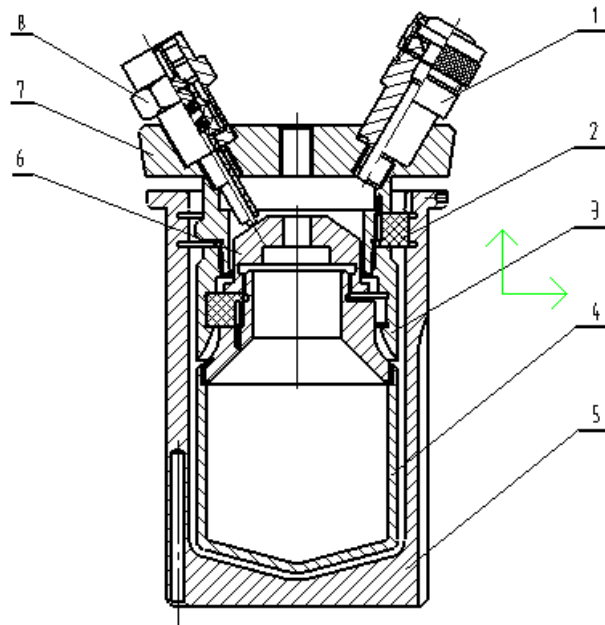
- ◆ The test cell is in accordance with international standards and specifications.
- ◆ The temperature is adjustable up to 200°C
- ◆ The cell can be evacuated, e.g. to degas the insulating oil.
- ◆ The electrodes are made of stainless steel.
- ◆ The test results are reproducible thanks to precise mechanical design.

### Technical Specifications

Empty cup capacitance:	60 pF
Electrode spacing:	2mm
Amount of liquid:	40 cm <sup>3</sup>
Electrode material:	Stainless steel
Surface:	Micro finished
Electrode temperature:	Ambient temperature: 200°C
Heating capacity:	Heating 1000W
Heat-up time:	30 min
Built-in fuses:	8A
Max. Test voltage:	2000 V RMS, 50/60 Hz
Max. Electric field:	10 kV/ cm
Dimensions:	240mm×220mm
Weight:	10 kg

## Structure Summaries

Electrode Structure as follows:



- |   |  |
|---|--|
| 1. Vacuum connect                                   | 5. High voltage electrode (Exterior electrode) |
| 2. Insulating pillar                                | 6. Fastening screw cap                         |
| 3. Shielding protective electrode (Protective wing) | 7. Installing body                             |
| 4. Measurement electrode (Interior electrode)       | 8. Measurement electrode outlet end            |

### Detail Pictures:



For further information please contact:

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