



SCHERING BRIDGE



DESIGN AND PRODUCTION OF
INSTRUMENTS AND APPARATUS
FOR QUALITY CONTROL
ON MATERIALS



These instruments are made in
compliance with CE health and
safety requirements



FIELD OF APPLICATION

This equipment allows to determine the relative dielectric constant ϵ_r and the dissipation factor $\tan\delta$ of insulation materials at the frequency of 50 (60) Hz.

As known, the relative dielectric constant of a material is the ratio between the capacity of a condenser having that material like dielectric and the same condenser having vacuum like dielectric (air, in practice).

Through the use of our equipment both ϵ_r and $\tan\delta$ can be easily obtained from a wide range of materials such as rubber, plastics and similar.

STANDARDS

Designed and built to meet the following standards:

ASTM D 669-82	«Dissipation Factor and Permittivity Parallel with Laminations of Laminated Sheet and Plate Materials».
DIN 53483	«Prüfung von Isolierstoffen; Bestimmung der relativen Dielektrizitätskonstante und des dielektrischen Verlustfaktors, Messeinrichtungen».
UNI 4289	«Determinazione della costante dielettrica relativa e del fattore di dissipazione».

and other equivalents.

TECHNICAL DATA

Zero indicator	<ul style="list-style-type: none"> • analog, with electronic amplification circuit • max sensibility 50 $\mu\text{V}/\text{division}$
Capacity measurement range	• 0,003 to 1000 times the capacity of the specimen condensor
$\tan\delta$ measurement range	• 0.3×10^{-7} to 3.5
Specimen condensor capacity	• 100 pF; accuracy 0.1%
Test voltage	• 0 to 3000 V - 50 (60) Hz
Voltage indicator	• analog voltmeter with 1.5% accuracy

ANCILLARY EQUIPMENT

6138/003	• Electrode-holder cell
6136/001	• Electrodes acc.to DIN 53483 - 24.2 mm dia.
6136/002	• Electrodes acc.to DIN 53483 - 49.5 mm dia.
6136/003	• Electrodes acc.to DIN 53483 - 100 mm dia.
6136/004	• Electrodes acc.to ASTM D 150, ASTM D 669, UNI 4289

Electrodes having different shape and dimensions can be supplied upon specific request.

SPECIFICATIONS

Overall dimensions (LxDxH)	• 750x350x200 mm abt.
Mass	• 35 kgs. abt.
Supply	• 220 V - 50/60 Hz - Singlephase
Paint	• grey RAL 9018 - blue RAL 5014

"Due to the continuous development policy of CEAST's Research and Development Department, changes may be introduced without notice"



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