

BDS 1200

- Standard sample cell for dielectric, conductivity, and electrochemical impedance measurements at frequencies from DC to 10 MHz
- Four standard BNC connectors for easy connection of all dielectric/impedance analyzers (optionally by two or four BNC cables)
- Wide temperature range: -200 °C to 400 °C
- Including precision Pt100 temperature sensor, located closely to the sample position
- Fully compatible with Novocontrol temperature control systems Quatro Cryosystem, Novocool Cryosystem, Novotherm
- Extensible by liquids cells BDS 1307, BDS 1308, BDS 1309
- Compatible with Novocontrol interdigitated electrodes and corresponding sample holders



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BDS 1200



Dielectric Sample Cell BDS 1200

The accurate characterisation of electrical properties of materials over the widest ranges of impedance and frequency not only requires an appropriate impedance analyzer, but also a suitable sample cell that allows easy and reproducible sample mounting, appropriate electrical insulation of the sample electrodes and perfect connection to the temperature control environment. The Novocontrol passive sample cell BDS 1200 combines all these features.

Methods

- Electrical characterisation of materials (solids/liquids/powder) in parallel-plate configuration
- Electrical characterisation of liquids on interdigitated electrodes
- Dielectric Spectroscopy
- Conductivity Spectroscopy
- Electrochemical Impedance Spectroscopy

Supported analyzers and temperature control systems

Analyzers

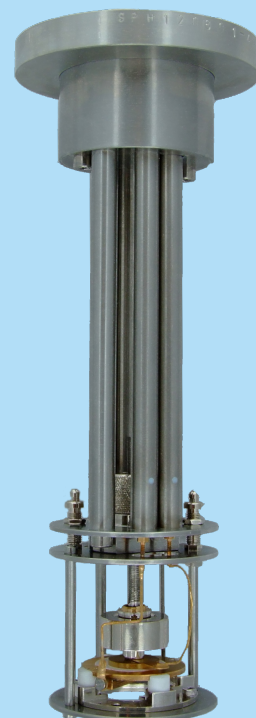
- Alpha-A + ZG2
- Alpha-A + ZG4
- Alpha-A + POT/GAL 30 V/2 A
- Alpha-A + POT/GAL 15 V/10 A
- NEISYS
- General impedance analyzers in two or four wire connection mode (via BNC cables)

Temperature Control Systems

- Quatro Cryosystem (-160 °C .. 400 °C)
- Novocool (-100 °C .. 250 °C)
- Novotherm (ambient .. 400 °C)

BDS 1200 Features:

- Seamless integration into the Novocontrol temperature control systems Quatro, Novocool, and Novotherm
- Integrated precision Pt100 temperature sensor
- Massive stainless steel construction
- Gold-plated electrodes
- Top flange with four BNC connectors and Lemo Pt100 connector
- Easy to use sample mounting mechanism
- Sample diameter up to 40 mm
- Sample thickness from 0 to 15 mm
- Wide range of useful accessories
- Particular electrical insulation properties, enabling the accurate dielectric characterisation of high-impedance/low-loss samples



Extensions/Accessories

- Disposable electrodes BDS 1301 (in sizes of 10/20/30/40 mm diameter)
- Cylindrical cell for liquids (BDS 1307)
- Parallel plate cell for liquid (BDS 1308)
- Parallel plate cell for liquids with high permittivity/conduction (BDS 1309)
- Interdigitated electrodes
- Sample holders for interdigitated electrodes (BDS 1420)
- NanoKit
- Shielding unit (BDS 1230)

System requirements

- Impedance analyzer
- Shielding unit or temperature control system