

Sample Holder

Piezo Sample Holder Unit (PSHU_Kryo)

Sample holder for piezoelectric bulk ceramic materials offer the simultaneous acquisition of electrical and electro-mechanical data over a wide range of temperature. The heating and cooling unit is integrated into the sample holder, so no additional temperature chamber is necessary. These investigations are essential for the development of actuator materials for most of the applications, e.g. fuel injection systems for car engines.

■ Features / Specifications

- Use of silicone oil possible to increase the flash-over voltage
- Maximum voltage up to 4000 Volt (10 kV optional)
- Contacting of samples for current measurements with the virtual ground method
- Reliable and precise displacement measurements with commercial laser interferometer
- Wide displacement working range and large distance to displacement measuring sensor in comparison to intensity based displacement sensors.
- Temperature measurement located at the sample
- Temperature range -100°C to 600°C (in oil 250°C)
- Heating rate: 100°C/min
- Cooling rate: 3°C/min
- dewar for liquid nitrogen
- Sample thickness 0.3 - 10 mm
- Sample diameter 3 - 25 mm
- connections for dry air or nitrogen circulation

