BALAB 佰力博

— DMS2000 —

High and Low Temperature Dielectric Impedance Temperature Spectrometer

Domestic Pioneer

High Stability

Wide Temerature Range

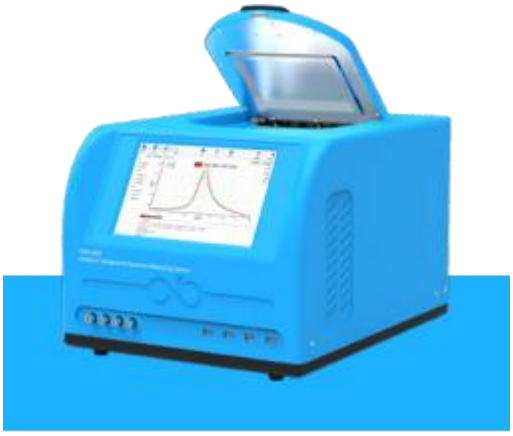
Integrated Design

Chinese website: www.balab.com.cn

Overseas website: www.matmeas.com

Product Introduction

The DMS2000 Series High and Low Temperature Dielectric Impedance Temperature Spectrometer is a specialized system designed for evaluating the dielectric properties of dielectric materials under high and low temperature enviorments. The system is developed base on the parallel plate capacitor principle and in accordance with ASTM D150 standards. As a new-generatation dielectric impedance temperature spectrometer, it supports both single-sample and five-sample bulk testing configurations. Combined with the independently developed LNP-95 liquid nitrogen injection system, it enables continuous temparature testing from -160℃~450℃, meeting diverse scientific research requirements.



Functional Features

01 Integrated structural design for simple operation and convenient maintenance.

02 Precise temperature control from –160℃~450℃ through heating/cooling plaform。

03 Vacuum–enabled sample chamber provides thermal insulation, prevents frosting, eliminates false water peaks near 0℃。

04 Parallel plate capacitor method: hemispherical upper electrode and flat lower electrode ensure improved contact.

05 High–purity platinum electrodes with excellent high/low temperature resistnace, oxidation resistance, and low contact resistance.

06 Real–time monitoring of temperature measurement and control curves for precise fault diagnosis.

07 Built–in mechanical pressure relief device ensures safety under overpressure conditions.

08 Liquid level alarm function automatically alerts when liquid nitrogen is below minimum level.

09 Domestic innovation enabling dielectric impedance temperature spectrum measurement under multiple enviroments.

10 Built–in key measurement parameters, five–step operation for optimal measurement results.

Technical Spec

Temperature Range: -160℃~450℃	Recommended Sample size:ϕ＜20mm d＜5mm	
Temperature control Accuracy: ±1℃	Electrode Material:	Upper and lower silver electrodes
Heating Range: 0-10℃/min (3℃/min)	Dimensions:	547*380*326mm (L x W x H)
Heating/cooling method: Resistance wire heating/liquid nitrogen cooling	Power Supply:	220~240V, 50Hz/60Hz
Frequency Range: 20Hz~30MHz (Single Channel)	Weight:	25kg
20Hz~10MHz (FIve channels)	Warranty Period	1year