

Automatic Surface Tensiometer



Introduction:

This instrument performs accurate surface and interfacial tension measurements across a wide range of liquids. It features an LCD for instant result display and automatic averaging of multiple tests. With a unique dual-calibration system—using standard weights for certification compliance and reference liquids for precision and repeatability—it ensures reliable results through a simple and efficient calibration process.

Features:

- * Features a unibody casing and precision direct-drive mechanism, significantly enhancing instrument reliability and durability. The vibration-free transmission ensures physical stability for improved testing accuracy.
- * Utilizes a micro stepper motor for the lifting platform, enabling high-speed adjustment to enhance efficiency and reduce testing time. Automatically switches to standard speed during measurement to guarantee precision.
- * Equipped with a 32-bit ARM microcontroller for high-speed operation and computational accuracy. A proprietary filtering algorithm ensures stable and accurate readings.
- * Incorporates a 24-bit AD converter for rapid signal conversion and highly accurate force value acquisition.
- * An improved torsion wire lever mechanism guides the sensor core in a near-linear path, ensuring excellent test linearity.
- * Employs a high-end domestic LVDT displacement sensor with superior linearity, sensitive signal output, and precise impedance matching, guaranteeing repeatable test accuracy.
- * Includes an auto-stop function configurable for surface tension tests. The platform halts automatically upon completion and displays the tension value.
- * Offers an automatic averaging function, which calculates and displays the mean of multiple tests, reducing operator workload and effort.
- * Features a digital LCD screen that simultaneously displays real-time data and final test results, allowing for direct and convenient reading.

Technical Parameters:

Model	BKST-200A
Measuring Range	0~200.0mN/m
Resolution	0.01mN/m
Accuracy	≤±1%FS
Repeatability Error	≤±1%FS
Platinum Ring Specification	Ring radius (R) 9.55mm, wire radius (r) 0.3mm
Standard Accessory	Platinum ring, hook, glass vessel, 1000-milligram weight*2, 500-milligram weight*1
Power Supply	AC 110/220V, 50/60Hz
External Size(W*D*H)	260*200*310mm
Package Size(W*D*H)	300*300*400mm
Net Weight	10kg
Gross Weight	12kg