

LEMI-30 Apparatus of Measuring Liquid Surface Tension Coefficient

- *Direct digital reading*
- *High sensitivity & repeatability*
- *Stable and reliable*
- *Affordable*



Liquid surface tension coefficient is an important parameter for the characterization of liquid property, which has important applications in industrial, medical and scientific research. Traditional measurement methods using Jolly scale or torsion balance are less precise, instable, and without direct digital output.

This apparatus is designed for measuring liquid surface tension coefficient based on a pulling and breakaway method using a silicon crystal resistance strain sensor. It has the following three advantages:

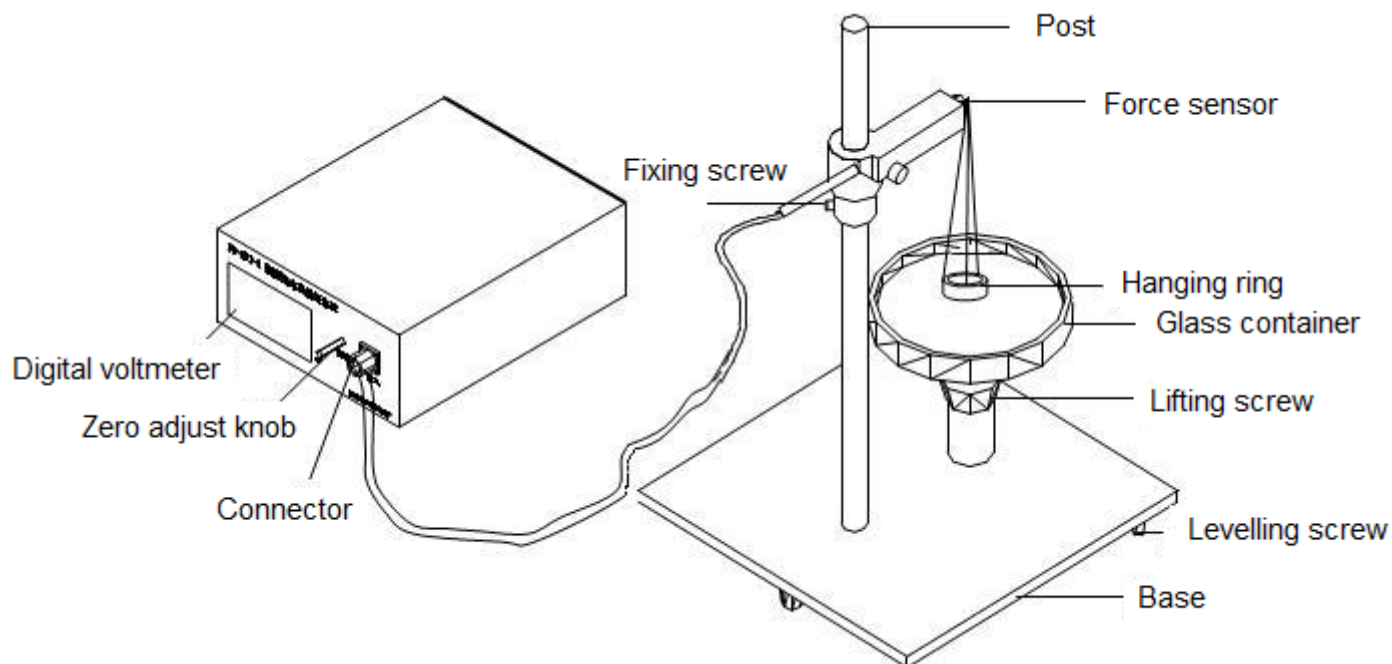
1. Silicon crystal strain sensor has high sensitivity, linearity and stability, with a digital output voltage display.
2. A thin metal ring or slice rather than metal wire or blade, is more rigid (less deformation) and durable.
3. Dimensions of the metal ring are specially designed and tested to achieve accurate and reliable results.

Experimental Objectives

1. Calibrate silicon resistance strain sensor using weights and calculate sensitivity.
2. Observe physical process and physical phenomena of liquid surface tension using pulling and breakaway method, and analyze and study physical phenomena using basic physical concepts and laws.
3. Measure surface tension coefficients of water and other liquids.
4. Measure relationship between liquid concentration and surface tension coefficient.

Specifications and Parts

Description	Specifications
Silicon resistor strain sensor	Range: 0 ~ 10 g; sensitivity: ~ 30 mV/g
Reading display	200 mV, 3-1/2 digital
Hanging ring	Aluminum alloy
Glass plate	Diameter: 120 mm
Weight	7 pcs, 0.5 g/pc



Schematic of system

Note: above product information is subject to change without notice.