



AUTOMATIC SURFACE & INTERFACIAL TENSIOMETER

CODE: 11053-04



COMPLIANCES

The instrument is based on the DuNuoy ring, Wilhelmy plate principles and confirms to various National and International standards like IS:6104/1972; ASTM-D-971, 1590, 1331, ISO 1409, 304, 6889, OECD 115, DIN 53914, EN 14210

APPLICATIONS

Transformer oil testing

Surfactant concentration measurement

General quality control of formulations for pharmaceuticals, cosmetics, cleaning agents etc.



CAPABILITIES & SPECIAL FEATURES

- * Can operate as a stand-alone instrument or on a network.
- * High Resolution all colour touch screen user interface.
- * User friendly menu driven operation with graphic and image based guidance.
- * Illuminated test compartment with clear wind shield.
- * Can be used for various quality control and R&D applications.
- * Possibility of greater automation with a wide range of accessories and customization.
- * Standard supply with circulation jacket for connection to an external source.
- * Can be programmed to automatically test at a pre-set sample temp.

SPECIFICATIONS

- * Measurement Principle : Force
- * Max. Load : 50gm
- * Resolution : 100ugm
- * Sampling Rate : 80Hz
- * Unit of measurement : Dynes/cm or mN/m
- * Range : 0 - 999.99 dynes
- * Display Resolution : ± 0.001
- * Accuracy : ± 0.005 Dynes/cm.
- * Table Speed : 0.1mm/Sec to 50mm/min
- * Stroke Length : 50mm



- * Sample Volume : 40ml.
- * Operating Methods : Du-Nuoy Ring, Wilhelmy Plate, Rod method, Lamella break, Density measurement
- * Circulation jacket built-in
- * Sample Temperature : -10 - 100°C by an external circulator.
- * Sample Temperature Measurement : By inbuilt RTD Sensor
- * Resolution : 0.1C
- * User Interface : 3 1/2" COLOUR Touch screen
- * Density Measurement provision
- * Density Range : 1 - 2200Kg/m³
- * Resolution : 1 Kg/m³
- * Power : 230VAC/110VAC
- * Load : 40W
- * LED Chamber illumination
- * Clear Windshield to prevent air drafts.
- * Interface : Rs232 for communication with add-ons like CMS dosing pump, Auto IFT dosing pump.
Ethernet for Web & LAN enablement and PC connectivity
- * Pc interface Software for datalogging and operation
- * All SS construction with dual tone powder coated finish
- * Dimensions mm(W X D X H) : 300 x 300 x 450
- * Weight : 21 Kg



STANDARD ACCESSORIES (PACKING LIST)

1. Basic instrument
2. Levelling screws
3. Circulation Jacket
4. Power cord
5. Platinum ring 6 or 4 cm as per choice
6. Sample dish
7. Operating Manual

SPARES & OPTIONAL ACCESSORIES CUM FEATURES

Product Code	Description
* 11053-21	PLATINUM RING 6Cm CIRCUMFERENCE
* 11053-22	PLATINUM RING 4Cm CIRCUMFERENCE
* 11053-30	CALIBRATION WEIGHT
* 11053-23	WILHELMY PLATE
* 11053-15	SAMPLE DISH
* 11053-25	AUTOMATIC INTERFACIAL TENSION ATTACHMENT. VARIABLE VOLUME PIPETTE 0.1 TO 5ML S.S. TONGS
* 12028-00	CONSTANT TEMP. CIRCULATION BATH ABOVE AMBIENT TO 60C
* 12028-01	REFRIGERATED CONSTANT TEMP. CIRCULATION BATH -10 TO 100C
* 11053-26	GLASS SINKER FOR DENSITY MEASUREMENT
* 11053-27	CMS MEASUREMENT SYSTEM WITH SINGLE DOSING PUMP
* 11053-28	uL PUMP FOR VERY SMALL CMS DOSAGES
* 11053-29	PROVISION FOR LAMELLA BREAK TEST METHOD.

DESIGNED & MANUFACTURED BY:



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*** Products & Design Subject To Change Without Prior Notice.**



DIGITAL SURFACE & INTERFACIAL TENSIOMETER

CODE: 11053



CODE:11053-00

**FAST AND EASY CALIBRATION,
CHANGE OF WIRE IN JUST 15
MINUTES**

All new '**CI**' **INTERFACIAL & SURFACE TENSIO METER DIGITAL** Working on "DU-NOUY" principle combines the ruggedness, portability of the analog version with to days latest technology resulting in tremendous improvement(s) in accuracy, ease of handling and most importantly calibration, changing of torsion wire and altogether eliminates the vernier scale, thereby no human eye error while taking the vernier reading.

End result being a trouble free, accurate reliable and user friendly instrument.

The instrument measures surface and interfacial tension quickly and accurately in oils, detergents, serums, colloidal suspensions, chromium solutions, etc. For better control of your process and product quality. The 'CI' Tensiometer is easy-to-use, accurate, portable and gives results reproducible to within ± 0.01 dyne/cm. The Tensiometer measures upward surface tension Units between 2 liquids or between a solid and a liquid.

SPECIFICATIONS

SFT / IFT RANGE	: 1 - 999 Dynes/cm or mN/m (EXTENDABLE)
RESOLUTION	: 0.001 upto 999.999 and 0.01 upto 9999.99Dynes/cm or mN/m
OPERATING TEMPERATURE:	10°C to 50°C
SAMPLE	: 40ml
SAMPLE TEMPERATURE	: As per requirement through an external source
POWER SUPPLY	: 230V/110V AC/24V DC
POWER CONSUMPTION	: 20W



ADVANTAGES :

- * DIGITAL READ OUT OF TENSION IN Dynes/cm or mN/m
- * EASY AND QUICK CHANGE OF TORSION WIRE
- * QUICK AND EASY CALIBRATION EVEN ON FIELD
- * HIGHER / INFINITE RANGE OF TESTING
- * CAN BE CARRIED AROUND IN THE FIELD

APPLICATIONS

Surface and Interfacial tension testing has become indispensable to a variety of industries including Paint, Chemicals, Dyes, Coatings, Inks, Plating, Soaps and Detergents, Surfactant, Emulsions, Crude, Transformer oils, Lubricants and many many more. These Tensiometer are also being used in many research & technical centers as an important instrument for scientific studies.

The most widely used application being to verify transformer oil condition, by various players in the power distribution and generation fields.

STANDARDS

The instrument is based on the DuNuoy principle and confirms to various National and International standards like IS:6104/1972; ASTM-D-971, 1590, 1331

Instrument Size	: 220mm x 280mm x 340mm
Instrument Size with carrying Case	: 250mm x 350mm x 365mm
Weight of the Instrument	: 05 kgs.
Weight with carrying case	: 13Kgs.

‘CI’ Interfacial tensiometer is supplied complete with

- * Power Cord - 1 no.
- * Sample Dish - 1 no.
- * Platinum Ring 6cm - 1 no.
- * Manual - 1 no.
- * Carrying Case - 1 no.



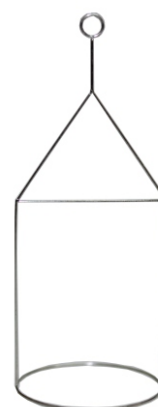
SAMPLE DISH



CARRYING CASE



CIRCULATOR



PLATINUM RING



SS TONGS



THERMOSTATIC WATER BATH



SPARES & OPTIONAL ACCESSORIES

Product Code	Description
* 11053-11	PLATINUM RING 6Cm. CIRCUMFERENCE
* 11053-12	PLATINUM RING 4Cm. CIRCUMFERENCE
* 11053-13	CALIBRATED FRACTIONAL WEIGHT BOX
* 11053-14	TORSION WIRE
* 11053-15	SAMPLE DISH
* 11053-16	CARRYING CASE
*	VARIABLE VOLUME PIPETTE 0.1 TO 1ML
*	S.S. TONGS
* 11053-18	RECHARGEABLE BATTERY PACK
* 11053-19	WATCH GLASS
* 12028-00	CONSTANT TEMP. CIRCULATION BATH ABOVE AMBIENT TO 60°C
* 12028-01	REFRIGERATED CONSTANT TEMP. CIRCULATION BATH 0 TO 100°C

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