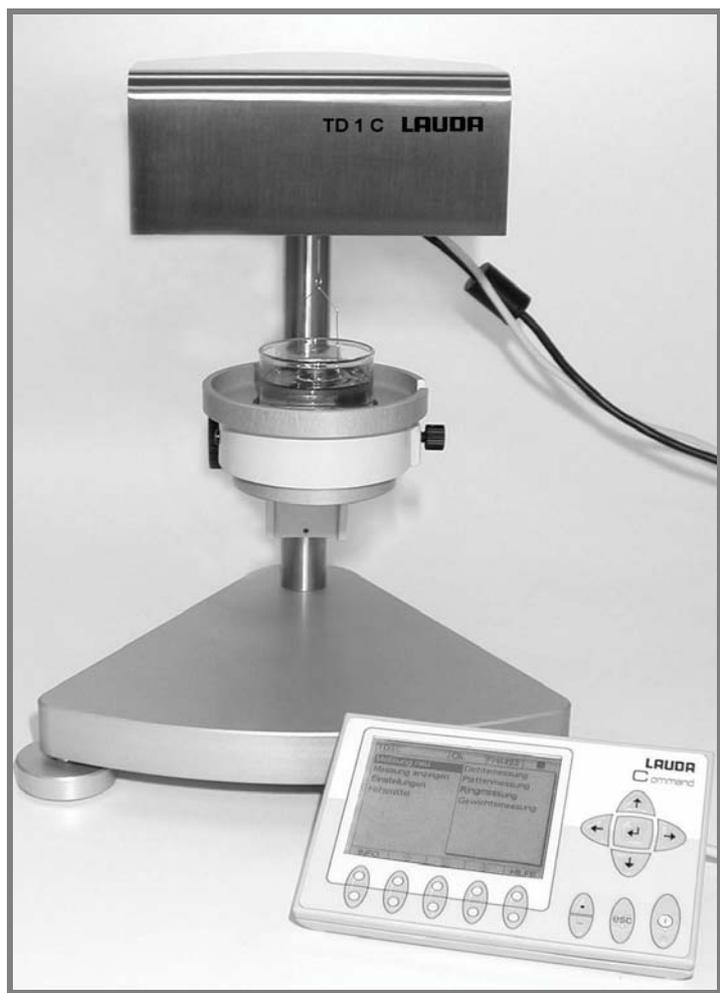


LAUDA TD 1C

Economical introduction into the world of tensiometry



Hundreds of TD 1 LAUDA tensiometers have been sold throughout the world since 1991. The demand for economical, easy-to-use tensiometers continues. The TD1 Cs, whose technology has been completely revised and which bear a new design, offer this clientele even easier handling and extended documentation options by means of the latest processor technology and the handy, removable "COMMAND" control unit which has proven itself with LAUDA thermostats and measuring instruments.

Especially suitable for new-comers to the world of tensiometry or for practical experience in schools or university is the TD 1 C model with du Noüy ring and Wilhelmy plate according to international standards (DIN53914, ISO 304, ASTM D971). Furthermore, the density, according to the Archimedes' principle, and smaller weights can be measured due to a newly-developed, even more powerful force-measuring cell with a considerably enlarged measuring range.

The measuring table with the sample stage can be moved up and down in the complete absence of jolts and play by means of ergonomic adjusting screws, like a microscope, in order to lower the Wilhelmy plate to the sample surface or in order to determine the force maximum during the ring measurement.

By means of the high-resolution display of the COMMAND module, the increase in wetting force during withdrawing of the ring can be followed and the maximum force can also be found without detaching the lamella. The value displayed in the maximum is automatically corrected according to Zuidema and Waters, and thus corresponds to the surface tension of the measured liquid in mN/m. At the touch of a button, the measured value and all parameters can be either saved or directly printed out on an optional protocol printer.

New measuring options

- ⇒ High resolution (+- 0.1 mN/m, +- 1 mg) and enlarged measuring range up to 300 mN/m / 5g.
- ⇒ Automatic maximum recognition
- ⇒ Print-out of the measuring values (surface / interfacial tension, density) on an optional printer at the touch of a button
- ⇒ Automatic correction of measuring values (according to Zuidema and Waters)
- ⇒ Semi-automatic calibration at three levels of precision with calibration weights
- ⇒ Input of sample dimensions possible
- ⇒ Storage of up to 500 measurements and the accompanying parameters
- ⇒ Numerical sample description determined by the user

Basic components:

Separate remote control with "Command" display

This handy, removable control unit enables the input of the measurement parameters and assumes the evaluation and representation of the measurement results. The large, high-resolution graphic display takes over the menu-driven user guide, and displays single measurements and results at the touch of a button.

The "TD 1C" measuring unit

The measuring console includes the high-resolution force-measuring cell and the lifting device for the manual positioning of the sample stage. Various, standard test beakers with a diameter of up to 8cm can be inserted into the large, sample compartment accessible from all sides. The samples can be brought to the correct temperature by using a LAUDA RE 104 thermostat, for example, connected to a double-walled glass thermostating vessel.

Standard accessories

- ⇒ *Du Noüy ring*
- ⇒ *Wilhelmy plate*
- ⇒ *Calibration weight 500g*
- ⇒ *Immersion plunger made from glass for determining density*

Optional accessories

- ⇒ *double-walled glass thermostating vessel*
- ⇒ *Protocol printer*

Technical data

Measurement type	Surface and interfacial tension: density, weight
Measurement range ST/IFT	< 300 mN/m ring; < 999 mN/m plate
⇒ Resolution	0.1 mN/m
Density measurement	< 2,000 kg/m ³
⇒ Resolution	± 1 kg/m ³
Weight measurement	< 5,000 mg,
⇒ Resolution	± 1 mg
Calibration	Calibration weight
⇒ Sensitivity	3 levels
Display	Graphic display. 320x240, 11 x 40 characters
Selection of measurement mode	Menu-driven
Parameter input	Menu-driven
Sample description	Numerical (0-999)
Measurement storage	Max. 500 measurements, including date and time
Sample stage movement	Manual by means of turning knob
Maximum recognition	Automatic
Ring correction	Automatic correction according to Zuidema and Waters
Logging	Printer
Weight	Approx. 5 kg
Dimensions (measuring table)	250x120x300mm ³
Mains connection	External power supply: 100–240 V 20/60 Hz

Subject to technical changes.