



RHEOMETER RC 1

PORTABLE AND MORE



Measuring equipment RC1



Rheometer

The Rheometer RC 1 is a rotational viscosimeter (Searle principle) for mobile use and laboratory operation. The highly dynamic measuring drive system enables rotational tests where the shear rate and the shear stress are pre-set (CSR and CSS), and creep tests. The electronic unit, the keyboard, the measuring drive system and the measuring bob coupling are integrated in a portable housing.

SPECIAL FEATURES

- build-in rechargeable battery and mains power
- parallel display of 4 optional parameters of viscosity, temperature, torque, shear rate, shear stress, rev (on a 4 line alphanumeric display)
- dust proof keyboard
- torque overload protection
- storage of the measuring conditions pre-set when Rheometer is switched off
- data buffering in the RAM for mains and battery operation
- serial interface for printer and personal computer
- user-friendly software RHEO for using the Rheometer and for evaluating and displaying the data measured

OPTIONAL TEST MODE

- CSR - rotational test with **shear rate pre-set (manually and via personal computer)**
Shear rate levels pre-set according to ISO 3219 defined speed and shear rates
- CSS - rotational test with shear stress pre-set (in connection with a computer system)
- Creep test (in connection with a computer system)

MEASURABLE AND EVALUABLE QUANTITIES

Viscosity
Shear Rate
Shear Stress
Speed
Torque
Temperature
Time

TECHNICAL DATA

Torque range mains power	50 mNm
Torque range battery power	20 mNm
Torque resolution	0,01 mNm
Angle range	0,8 mrad
Speed range	0,7 to 800 min ⁻¹
Viscosity rate range mains power*	10 ⁻³ to 3 x 10 ³ Pa s
Viscosity rate range battery power*	10 ⁻³ to 1,2 x 10 ³ Pa s
Shear rate range*	0,9 to 4 x 10 ³ s ⁻¹
Shear stress range mains power*	0,7 to 3,4 x 10 ⁴ Pa
Shear stress range battery power*	0,7 to 1,3 x 10 ⁴ Pa
Accuracy	± 1 % of maximum value
Temperature range	-20 °C to 180 °C
Temperature measuring	Pt 100 1/3 DIN
Power supply	100 to 240 V Alternating current, 20 W

* dependent on measuring system used

ATTACHMENTS

- Thermostat for cylinder measuring systems
- Resistance thermometer Pt 100
- Standard cylinder and double-gap measuring systems (DIN), also as one-way measuring systems
- Optional measuring device for cone/plate and plate/plate measuring systems
- Peltier-thermostatic device for cone/plate and plate/plate measuring systems
- vertically adjustable stand
- battery charger and case
- rechargeable battery for mobile use

ADDITIONAL EQUIPMENT

Personal Computer/Printer
Liquid thermostat
Normal and Calibrating liquid

rheotec

Messtechnik GmbH
Schutterwälder Straße 23
D-01458 Ottendorf-Okrilla
Phone: + 49 (03 52 05) 5 99 03 - 0
Fax: + 49 (03 52 05) 5 99 03 - 20
Internet: www.rheotec.de · e-mail: info@rheotec.de
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