



# 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 <sup>-1</sup>
Viscosity rate range mains power*	10 <sup>-3</sup> to 3 x 10 <sup>3</sup> Pa s
Viscosity rate range battery power*	10 <sup>-3</sup> to 1,2 x 10 <sup>3</sup> Pa s
Shear rate range*	0,9 to 4 x 10 <sup>3</sup> s <sup>-1</sup>
Shear stress range mains power*	0,7 to 3,4 x 10 <sup>4</sup> Pa
Shear stress range battery power*	0,7 to 1,3 x 10 <sup>4</sup> 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

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