



ROTATIONAL VISCOMETERS RP1-RP2



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RAYPA viscometers, models RP1 and RP2, are rotational viscometers for the fast determination of viscosity as specified in ISO 2555 and other ASTM norms.

Instrument offers a precise digital torque measurement and viscosity measurement results which are 100% compatible to the Brookfield method.

FEATURES

Interface RS232 for data transfer to PC or printer, temperature probe PT 100, digital display for direct reading of diverse parameters, software Viscosoft Basic for easy data evaluation, warning of under- or over-range condition, complete spindle set and 24 months warranty.

Additionally model RP2 offers bi-directional interface RS232 for RP2 control and data evaluation through a PC and the software Viscosoft Plus for the automated control of viscometer and the issuing of rheological studies.

COMPATIBILITY

ISO 2555 and ASTM define a viscometer in torque, speed and spindle design. Our RAYPA viscometers comply with such specifications and are therefore 100% compatible to Brookfield method and able to perform measurements as per such norms.

ADDITIONAL INFORMATION

Our viscometers are supplied as complete equipment in a very robust carrying case. Standard accessories for each basic equipment, complete set of spindles with storage rack, interconnecting RS232 cable, spindle guard and instructions manual, are included in case.

REQUIREMENTS

Mains	100-240/50-60Hz
Room temperature	10-40°C
Relative humidity	<80 %

PARAMETERS IN DISPLAY

Speed selected	r.p.m.
Spindle used	S.P.
Dynamic viscosity	mPas or cP
% scale (Brookfield)	%
Sample temperature	°C ó °F
Auto range to display viscosity limits	mPas or cP
Shear rater S.R. (with special spindles-only in V2 version)	1/s
Shear Stress S.S. (with special spindles-only in V2 version)	N/m ² or dyne/cm ²

SPECIFICATIONS

Speeds
0.3, 0.5, 0.6, 1, 1.5, 2, 2.5, 3, 4, 5, 6, 10, 12, 20, 30, 50, 60, 100, 200 r.p.m.
Accuracy <0.5 % of the absolute value

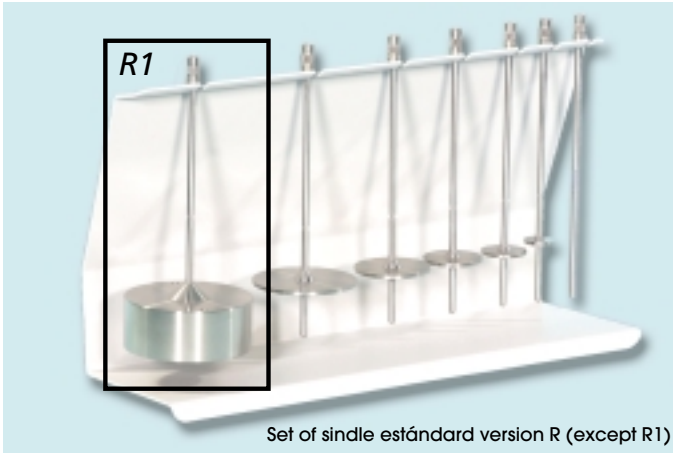
Spindle
Version L: (4 spindle L1 - L2 - L3 - L4)
Version R: (6 spindle R2 - R3 - R4 - R5 - R6 - R7)

Viscosity range
Version L: 3 - 2 000 000 mPas in 76 ranges - 19 speeds with 4 spindles - (For low to medium viscosity test fluids)

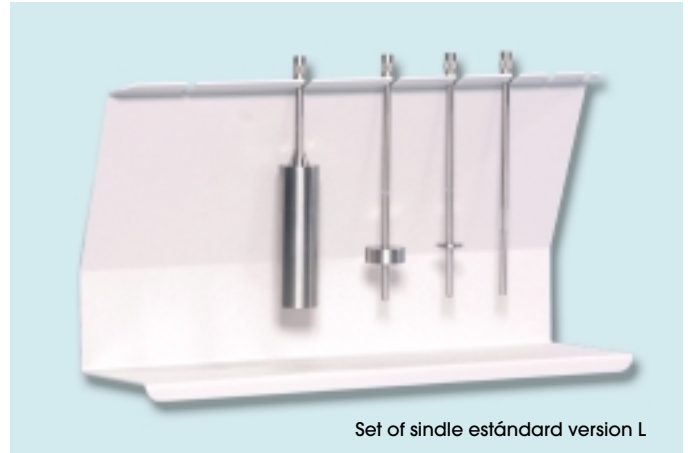
Version R: 20 - 13 000 000 mPas in 114 ranges - 19 speeds with 6 spindles - (For medium to higher viscosity test fluids)
Accuracy: ± 1% of full scale
Repeatability: ± 0.2%

Thermometer
Temperature range: -15°C to +180°C (+5°F to + 356 °F)
Resolution: 0.1°C (0.1722°F)
Accuracy: ± 0.1°C

ACCESORIES



Set of single estándar version R (except R1)



Set of single estándar version L

Single R1 Used for low viscosity measurements. Works only viscometers version R.
Viscosity range: 5 - 33300 mPas



ADAPTER FOR SMALL SAMPLE VOLUMES

the "Adapter for Small Sample Volumes" (circulating chamber, cylindrical sample chamber and spindle) allows precise viscosity measurements of small sample volumes (8 to 13 ml).

The sample chamber fits into a circulating chamber permitting sample to achieve a controlled temperature (between -10° C and 100° C) thanks to a external element (bath circulator).

the "Adapter for Small Sample Volumes" is supplied with a set of 3 or 4 spindles depending on version:

Versión L: TL5 - TL6 - TL7

Versión R: TR8 - TR9 - TR10 - TR11

Viscosity range

Versión L: 1.5 to 200.000 mPas/cP

Versión R: 25 to 3 300.000 mPas/cP



ADAPTER FOR LOW VISCOSITY MATERIALS

the "Adapter for Low Viscosity Materials" is indispensable to obtain accurate measurements on low viscosity materials, both newtonian and no newtonian. It can be used with V1 and V2.

It is supplied with a precision cylindrical spindle (LCP). Reproducibility of viscosity measurements from 0.45 mPas. Sample volume between 16-18 ml. The "Adapter for Low Viscosity Materials" has a circulating chamber in which fits the tube containing the sample. Through an external element (bath circulator), temperature in sample can be controlled and determined (temperature range between -10° C and 100° C).

Viscosity range

Versión L: 0.3 to 2.000 mPas/cP

Versión R: 3.2 to 21 333 mPas/cP

ACCESSORIES



ADAPTER FOR HELICOIDAL MOVEMENT

The "Adapter for Helicoidal Movement" used the special T-Type spindles allows accurate viscosity measurements in materials (cream, gel, wax, paste, putty, gelatine, gel) whose concrete characteristics do not permit to use standard methods and spindles.

The automatic movement up-down of measuring head permits that spindle traces a helical path avoiding in this way, that a breakage occurs in sample structure or that a channel creates in substance to be analyzed. By eliminating both problems, reliable viscosity values can be obtained.

It can be used with both models. It is supplied with six special T-Type spindles (PA, PB, PC, PD, PE, PF)

Viscosity range

Version L: 156 to 3 120 000 mPas/cP

Version R: 1660 to 33 300 000 mPas/cP

VISCOSOFT BASIC

Basic software serves to download data directly from Viscometer. Measured values are shown in a chart and can be saved in Excel format for posterior evaluation.

RHEOSOFT PLUS

By using the Rheosoft PLUS, Viscometer can be controlled through a PC.

In addition to this feature, this software permits to program different analyses methods (measurement processes) to obtain graphics and charts including test data.

Results obtained can be displayed in graphics with three coordinates with can be configured with different parameters.