

## Leading viscosimetry technology

### ROTATIONAL VISCOMETERS

# Expert series

Add essential performances to determine viscosity and other rheological features to homogenous samples.

### 2 YEARS WARRANTY

### Standard Delivery

Viscometer head with serial number / Stand, 3 levelling adjustment for stand / Boss head / Standard spindles / Spindle protector / Spindle rack / PT100 probe / Power supply cable / Datalogger software in CD / USB cable / Carrying case / Calibration Certificate / Operating manual

**NOTE:** All parts (including the viscometer stand) find room in the Carrying case.

### Extra Accessories

APM (Small Sample Adapter) / LCP (Low Viscosity Adapters) / Heldal unit (High Viscosity Adapter) / Silicon Standard Oils / Thermostatic Bath / Universal adapter for all accessories such as Brookfield (Optional) / PPR Plugging System (Optional)

**NOTE:** The material of the accessories including the temperature probe can be changed under customer specification (High Temperature Resistance).

Alpha Series



Smart Series



Premium Series



**TOUCH KEYBOARD** ◀  
Latest keyboarding technology, comfortable and easy to handle (12 Keys)

**PROGRAM FEATURES** ◀  
Time to torque  
Time to stop  
10 working memories  
Customizable option (54 Speeds)  
Programmable: Multistep/Ramp  
Unit Converter (IS or CGS)

**VISCOSITY READINGS** ◀  
Absolute viscosity (cP or mPa·s)  
Apparent Viscosity (cP or mPa·s)  
Kinematic viscosity (cSt, mm<sup>2</sup>/sec)  
(Density introduced by the user)

**AUTO-TEST** ◀  
It checks the internal function in order to make the unit ready to use

**UNIVERSAL ADAPTER** ◀  
All accessories such as Brookfield (Optional)



▶ **GRAPHIC DISPLAY**  
Provides huge range of graphical options

▶ **10 WORKING MEMORIES**  
Set up the unit and get it ready to be used every day choosing the memory you need

▶ **USB INTERFACE**  
Faster transfer data to the computer

▶ **DATA DISPLAYED**  
Selected Speed  
Selected Spindle  
Viscosity readings (cP or mPa·s or cSt)  
Percentage of Full Scale Range (%)  
Sample Temperature (°C or °F)  
Shear rate (with coaxial spindles) (s<sup>-1</sup>)  
Shear Stress (with coaxial spindles) (N/m<sup>2</sup>)  
Density (introduced by the user) (g/cm<sup>3</sup>)

▶ **DATALOGGER SOFTWARE INCLUDED**  
USB allows data transfer to a Excel format

## Main Features

- > Touch key board 12 keys.
- > Direct readout on a graphic display.
- > Data displayed:
 

Selected speed	r.p.m.
Selected spindle	SP
Viscosity reading	cP (mPa·s) or cSt
Percentage of full scale	%
Sample temperature	°C or °F
Shear Rate (with coaxial spindles)	SR (s-1)
Shear Stress (with coaxial spindles)	SS (N/m <sup>2</sup> )
Density (introduced by the user)	g/cm <sup>3</sup>
- > Viscosity reading: dynamic viscosity (cP or mPa·s) or kinematics viscosity (cSt).
- > Unit converter SI to CGS.
- > Program features:
  - Time to torque: target torque pre-setting device.
  - Time to stop: target time pre-setting device.
  - 10 working memories.
  - Customizable Options.
  - Programmable.
  - Multistep.
  - Ramp.
- > AUTO-TEST with sound and visual malfunction alarm.
- > AUTO-RANGE function.
- > Temperature reading by PT100.
- > User-enabled viscosity and temperature calibration.
- > 10 language options.
- > Interface: USB.
- > Datalogger Software: USB allows data transfer to a PC Excel format.

Standard delivery: The equipment is supplied complete with standard spindles (4 spindles for L model, and 6 spindles for R and H models),

viscometer stand and spindle protector, carrying case, USB cable and Datalogger Software.

## Technical File

- > Precision:  $\pm 1\%$  of full scale
- > Resolution:
  - With low viscosity adapter: 0.01
  - For lower than 10.000 viscosity cP: 0.1
  - For viscosity equal to or above 10.000 cP: 1
- > Repeatability: 0.2%
- > Thermometer features:
  - Temperature margins: 0°C to +100°C
  - 32°F to 212.0 °F
  - Resolution: 0.1°C / 0.1722 °F
  - Precision:  $\pm 0.1$  °C
  - Type of probe: PT100
- > Supplied at 100-240 VAC, 50/60 Hz

## Spindles

AISI 316 stainless steel spindles, easily identified by number and letter when changed according to range of viscosity.

These are the standards our units follow:

- BS: 6075, 5350
- ISO: 2555, 1652
- ASTM: 115, 789, 1076, 1084, 1286, 1417, 1439, 1638, 1824, 2196, 2336, 2364, 2393, 2556, 2669, 2849, 2983, 2994, 3232, 3236, 3716



Easy identification, on your first look at the equipment, you identify it.



PT100 temperature probe is suitable adjusted by a clip which is attached to the spindle protector.



Front view of the viscometer, touch keyboard with 12 keys and graphic display.

DATALOGGER downloaded data		
Visco Serial Number:	PREL400005	
Spindle:	L2	
Date:	20/01/2010	
Int. acquisition time:	17:43:11	
End acquisition time:	17:44:05	
Time increment between measurements:	00:00:01	
Density:	1.000000	
RPM:	50.000000	
Viscosity units:	centiPoise	
Temperature units:	°C	
Density units:	g/cm <sup>3</sup>	
Viscosity	% EOS	Temperature
457.905217	76.3333654	NO PROBE
465.417034	77.6905672	NO PROBE
466.96521	77.8441391	23.0245705
468.96521	77.8441391	23.0245705

## DATALOGGER SOFTWARE

Let the viscometer gather measurement data and store them in its internal memory (set these options when configuring a measurement with the keypad). More than 10,000 data points can thus be stored inside the viscometer. Then use this software to export the stored data as Microsoft EXCEL format. (No computer skills needed).

Code	Model	Measuring Range (cP)	Speed (r.p.m.)	Number of speeds
V300003	EXPERT L	20 - 6.000.000	0.01 - 200	54
V300002	EXPERT R	100 - 40.000.000	0.01 - 200	54
V300001	EXPERT H	200 - 106.000.000	0.01 - 200	54



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