Fapa s.a.s. Via Pascoletto, 20 24040 Lallio (BG) Tel. 035.6221219 Fax. 035.4372675 fapa@fapa.bg.it www.fapa.bg.it



# Leading viscosimetry technology

ROTATIONAL VISCOMETERS

# Smart series

Indispensable in QC and R&D laboratories.

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 (optional) / Power supply cable / Datalogger software in a 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 accesories 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



Expert Series



Premium Series



#### TOUCH KEYBOARD ◀

Latest keyboarding technology, comfortable and easy to handle (6 keys)

#### PROGRAM FEATURES

Time to Torque Time to Stop

# DATA DISPLAYED

Selected Speed
Selected Spindle
Viscosity readings (cP or mPa·s or cSt)
Percentage of Full Scale Range (%)
Sample Temperature (Optional, °C or °F)
Shear rate (with coaxial spindles) (s-1)
Shear Stress (with coaxial spindles) (IV/m²)
Density (introduced by the user)(g/cm³)

# TEMPERATURE READING BY PT100 (Optional)

## UNIVERSAL ADAPTER

All accessories such as Brookfield (Optional)



# ≣Fungilab

➤ VISCOSITY READINGS

Absolute viscosity (cP or mPa·s)

Apparent Viscosity (cP or mPa·s)

Kinematic viscosity (cSt, mm²/sec)

(Density introduced by the user)

**GRAPHIC DISPLAY** 

graphical options

Provides huge range of

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

#### ► DATALOGGER SOFTWARE INCLUDED

USB allows data transfer to a Excel format



#### Main Features

- > Touch key board 6 keys.
- > Direct readout on a graphic display.
- > Data displayed:

Selected speed Selected spindle

Viscosity reading

Percentage of full scale Sample temperature

Shear Rate (with coaxial spindles) Shear Stress (with coaxial spindles) Density (introduced by the user)

- > 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.

- > AUTO-TEST with sound and visual malfunction alarm.
- > AUTO-RANGE function.
- > Temperature reading by PT100 (optional).
- > User-enabled viscosity and temperature (optional) 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.

Model

SMART L

SMART R

SMART H

#### Technical File

- > Precision: ± 1% of full scale
- > Resolution:

r.p.m.

SR (s-1)

q/cm3

Measuring Range

(cP)

20 - 2.000.000

100 - 13.000.000

200 - 106.000.000

SS (N/m2)

cP (mPa·s) or cSt

<sup>Q</sup>C or <sup>Q</sup>F (Optional)

SP

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: +/- 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:

Speed

(r.p.m.)

0.3 - 100

0.3 - 100

0.3 - 100

- 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

Number of

speeds

18

18

18



Rear view to the viscometer showing the new USB interface that provides a faster transfer of data to the computer.



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



Front view of the viscometer, touch keyboard with 6 keys and graphic display.

DATALOGGE			
Visco Serial Spindle: L2		REL400009	
Date 20/01/	2010		
Int acquisite	in time: 17>	43.11	
End acquisit			
Time increme	ent between	measurements	00:00:01
Density: 1.00	00000		
RPM 50,000	1000		
Viscosity un	ts: centiPo	se:	
Temperature	unts: PC		
Density units	g/cm3		
Viscosity	% EQS	Temperature	
457.902527	76.33336	64 NO PROBE	
		72 NO PROBE	
466.96621	77.64413	91 23.0245705	
JEE 96601	77 84413	91 23 0245706	

#### 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

V200003

Fapa s.a.s. Via Pascoletto, 20 24040 Lallio (BG) Tel. 035.6221219 Fax. 035.4372675 fapa@fapa.bg.it www.fapa.bg.it