

## Sample of DVT Series Touch screen Viscometer



Perfect integration of touch-screen technology, fast, accurate, easy to measure viscosity. Stepless debugging, can measure super high viscosity of the sample. 5-inch color touch screen can be comprehensive, visual display of a variety of parameters and working conditions. It has many advantages, such as many measuring parameters, rich display content, convenient operation, intuitive reading, high measuring precision, stable rotational speed, strong anti-interference performance, showing the curve of shear rate and viscosity, and so on.

### Main features:

1 adopt ARM technology, built-in Linux system. The operation interface is simple and clear, through the creation of test program and data analysis, the viscosity test is carried out quickly and conveniently.

2. the viscosity test value is accurate : each measuring range is automatically calibrated by a computer , the precision is high , and the error is small ;

3. display is rich: in addition to viscosity (dynamic viscosity and kinematic viscosity), there are also temperature, shear rate, shear stress, measurement value as a percentage of the full range value (graphic display, range overflow alarm, automatic scanning, Maximum measurement range, date, time and so on under current rotor speed combination. Show kinematic viscosity when density is known.

4. complete functions: timing measurement, self-built 30 groups of test programs, access to 30 groups of measurement data, real-time display of viscosity curves, printing data and curves;

5. front level: level adjustment is intuitionistic and convenient;

6. stepless speed regulation:

RV1T series: 0.3-100 rpm, a total of 998 rotational speeds

RV2T series: 0.1-200rpm, 2000 revolutions

7. showing the curve of shear rate versus viscosity : the range of shear rate can be set , and displayed on the computer in real time ;Curve of time - to - viscosity can also be displayed

8. optional Pt100 temperature probe: wide temperature range, ranging from  $-20\text{ }^{\circ}\text{C}$  to  $300\text{ }^{\circ}\text{C}$ , and measuring precision  $0.1\text{ }^{\circ}\text{C}$ ;

9. Optional accessories rich: R1 rotor, temperature sensor, viscometer special thermostat bath, thermostat cup, printer, standard viscosity sample (standard silicone oil), etc.;

The measurable range is very large, ranging from 100 to 320 million MPA.

Widely used in paint, paint, cosmetics, ink, pulp, food, oil, starch, solvent adhesive, latex, biochemical products and other high viscosity industries.

### Detailed technical parameters:

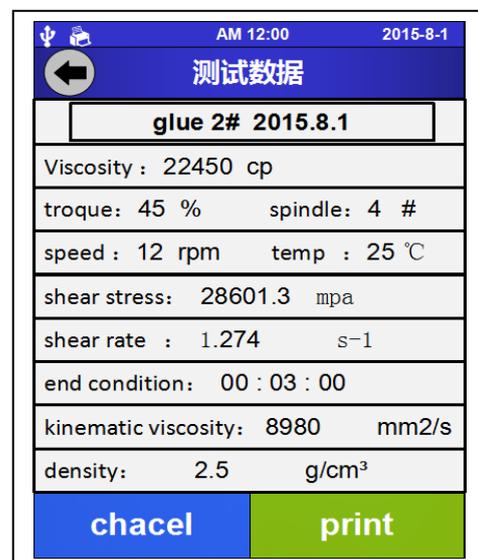
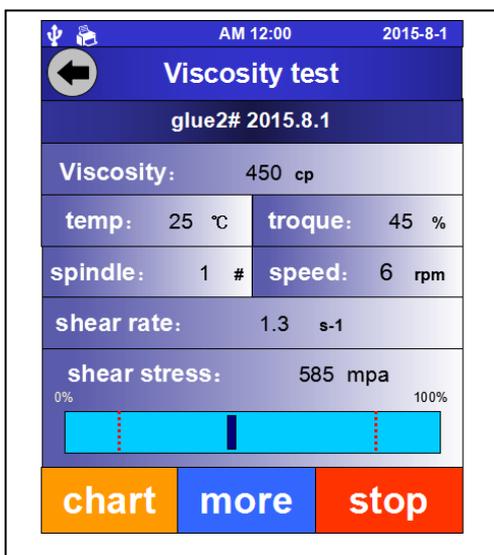
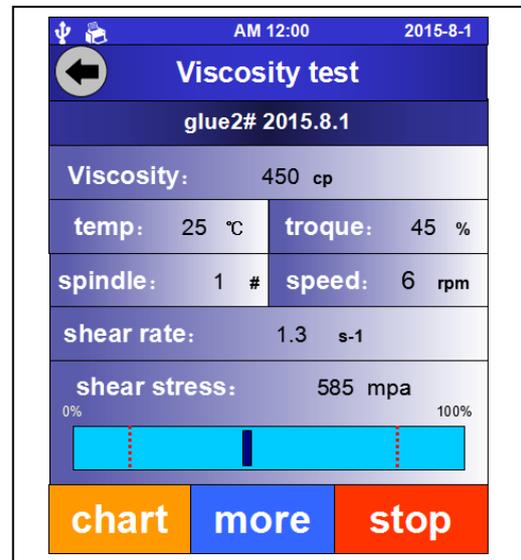
model	LVDV-1T	LVDV-2T
Control / display mode	5-inch color touch screen	
speed (r/min)	0.3 - 100 infinitely variable speed , a total of 998 speed options	0.1 - 200 infinitely variable speed , a total of 2000 speed options
measuring range	Rotor 1- 4: 10-2M mPa. s ULR: 1-1K Rotor 18: 3 - 10K Rotor 25: 480 - 1.60M Rotor 31: 30 - 100K Rotor 34: 20 - 200K	Rotor 1-4: 10 - 6M mPa. s ULR: 1-6K Rotor 18: 1.5 - 300K Rotor 25: 240 - 4.8M Rotor 31: 15 - 300K Rotor 34: 30 - 600K
rotor	L1 - L4 (Standard) Enhanced ultra-low viscosity adapter ULR (optional) Small sample adapters (rotors 18,25,31,34)(optional)	
Sample dosage	Rotor 1- 4: 300 - 400ml ULR: 21ml Rotor 18 : 7ml Rotor 25: 9ml Rotor 31: 10.5ml Rotor 34: 11ml	
	K = 1000; M = 1000000	
measurement error	$\pm 1\%$ (Newtonian liquid)	
repetitive error	$\pm 0.5\%$ (Newtonian liquid)	
Show shear response / shear rate	standard configuration	
Timing function	standard configuration	
Real-time display Viscosity curve	Temperature-time curve Viscosity-time curve (The rheological curves of shear rate and viscosity can be displayed by optional data processing software)	
kinematic viscosity	Density of samples to be entered	
Temperature measurement function	Standard temperature probe interface (optional temperature probe)	
Automatic Scanning Function	Automatically scan and recommend the preferred combination of rotor and rotation speed	
Maximum measurement range	Automatic display of selected combinations of rotor and rotation speed. Measurable viscosity range	

Self-built Measuring Procedures	Up to 30 groups (including rotor, speed, temperature, time, etc.)
Preservation of measurements	Up to 30 sets of data (including viscosity, temperature, rotor, speed, shear rate, shear stress, time, density, kinematic viscosity, etc.)
put a seal on	Data, curve can be printed (standard print interface, need to buy printer)
data output interface	RS232
thermostatic components	Selections (including various viscometer special thermostatic tank, thermostatic cup, temperature control device, heating furnace)
working power supply	Wide voltage operation (110 V/60 Hz or 220 V/50 Hz)
outline dimension	300 × 300 × 450 (mm)

model	RVDV-1T	HADV-1T	HBDV-1T
Control / display mode	5-inch color touch screen		
speed (r/min)	0.3 - 100 infinitely variable speed , a total of 998 speed options		
measuring range	Rotor R2-R7: 100-13M URL: 6.4 - 1K Rotor 21: 50-167K Rotor 27: 250-834K Rotor 2: 500-1.7M Rotor 29: 1K-3.3M	Rotor R2-R7: 200 - 26M URL: 12.8 - 1K Rotor 21: 100-333K Rotor 27: 500-1.7K Rotor 28; 1K-3.3M Rotor 29: 2K-6.6M	Rotor R2-R7: 800-104M URL: 51.2 - 2K Rotor 21: 400-1.3M Rotor 27: 2K-6.7M Rotor 28: 4K-13.3M Rotor 29: 8K-26.6M
	K = 1000; M = 1000000		
rotor	R2- R7(6, standard) R1 (apolegamy) Enhanced ultra-low viscosity adapter ULR (optional) Small sample adapters (rotor 21,27,28,29)(optional)		
Sample dosage	Rotor R1-R7: 500ml ULR: 21ml Rotor 21: 7.8ml Rotor 27: 11.3ml Rotor 28: 12.6ml Rotor 29: 11.5ml		
measurement error	± 1%		
repetitive error	± 0.5%		
Show shear response / shear rate	standard configuration		
Timing function	standard configuration		
Real-time display Viscosity curve	Time-viscosity curve Temperature-viscosity curve (optional temperature probe) (Optional data processing software shows shear rate and viscosity curves)		
kinematic viscosity	Density of samples to be entered		
Temperature measurement function	Standard temperature probe interface (optional temperature probe)		
Automatic Scanning Function	Automatically scan and recommend the preferred combination of rotor and rotation speed		
Maximum measurement range	Automatic display of selected combinations of rotor and rotation speed. Measurable viscosity range		
Self-built Measuring Procedures	Up to 30 groups (including rotor, speed, temperature, time, etc.)		
Preservation of measurements	Up to 30 sets of data (including viscosity, temperature, rotor, speed, shear rate, shear stress, time, density, kinematic viscosity, etc.)		
put a seal on	Data, curve can be printed (standard print interface, need to buy printer)		
data output interface	RS232		

thermostatic components	Selections (including various viscometer special thermostatic tank, thermostatic cup, temperature control device, heating furnace)
working power supply	Wide voltage operation (110 V/60 Hz or 220 V/50 Hz)
outline dimension	300 × 300 × 450 (mm)

model	RVDV-2T	HADV-2T	HBDV-2T
Control / display mode	5-inch color touch screen		
speed (r/min)	0.1 - 200 infinitely variable speed , a total of 2000 speed options		
measuring range	Rotor R2-R7:100-4000M URL: 3.2 - 1K Rotor 21: 25-500K Rotor 27: 125-2.5M Rotor 8:250-5M Rotor 29: 500-10M	Rotor R2-R7:200 - 8000M URL: 6.4 - 1K Rotor 21: 50-1M Rotor 27:250-5M Rotor 28: 500-10M Rotor 29: 1K-20M	Rotor R2-R7:800-32000M URL: 25.6 - 2K Rotor 21: 200-4M Rotor 27: 1K-20M Rotor 28: 2K-40M Rotor 29: 4K-80M
	K = 1000; M = 1000000		
rotor	R2- R7(6, standard) R1 (apolegamy) Enhanced ultra-low viscosity adapter ULR (optional) Small sample adapters (rotor 21,27,28,29)(optional)		
Sample dosage	Rotor R1-R7: 500ml ULR: 21ml Rotor 21: 7.8ml Rotor 27: 11.3ml Rotor 28: 12.6ml Rotor 29: 11.5ml		
measurement error	± 1%		
repetitive error	± 0.5%		
Show shear response / shear rate	standard configuration		
Timing function	standard configuration		
Real-time display Viscosity curve	Time-viscosity curve Temperature-viscosity curve (optional temperature probe) (Optional data processing software shows shear rate and viscosity curves)		
kinematic viscosity	Density of samples to be entered		
Temperature measurement function	Standard temperature probe interface (optional temperature probe)		
Automatic Scanning Function	Automatically scan and recommend the preferred combination of rotor and rotation speed		
Maximum measurement range	Automatic display of selected combinations of rotor and rotation speed. Measurable viscosity range		
Self-built Measuring Procedures	Up to 30 groups (including rotor, speed, temperature, time, etc.)		
Preservation of measurements	Up to 30 sets of data (including viscosity, temperature, rotor, speed, shear rate, shear stress, time, density, kinematic viscosity, etc.)		
put a seal on	Data, curve can be printed (standard print interface, need to buy printer)		
data output interface	RS232		
thermostatic components	Selections (including various viscometer special thermostatic tank, thermostatic cup, temperature control device, heating furnace)		
working power supply	Wide voltage operation (110 V/60 Hz or 220 V/50 Hz)		
outline dimension	300 × 300 × 450 (mm)		



From left to right: R1- to R7 disk rotor

Option:

### 1R1 Rotor

Sample viscosity below the lower limit of the range of each model, need to be equipped with R1 rotor

### 2. Enhanced ultra-low viscosity adapter (ULR)

Designed for low viscosity fluid measurement, there are two specifications for jacket type and non-jacket

type, with a minimum detection limit of 1cP, depending on the type of viscometer used

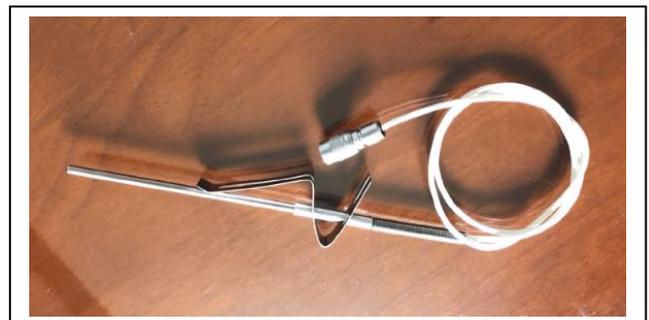


**3. Small sample adapters (rotors 21,27,28,29)**



**3. Temperature Probe (Temperature Sensor)**

Temperature Probe (Temperature Sensor)  
Temperature measurement range:-20-300°C  
Measurement accuracy:0.1°C



**4. Micro thermal printer**

Direct connection with a viscometer

print data  
Print curve



### 5. Special constant temperature bath for viscometer

Unique round opening can be placed in the 200ml beaker, direct viscosity measurement. The external circulation function can also lead the controlled thermostatic liquid to the external thermostatic cup to meet different test requirements.

#### 5.1 CH1006N:

Temperature control range:  
Room temperature plus 10 °C -100 °C

Temperature control accuracy: 0.1 °C



#### 5.2 DC0506W:

Temperature control range : -5 to 100 °C  
Temperature control accuracy : 0.1 °C

