

SV-10

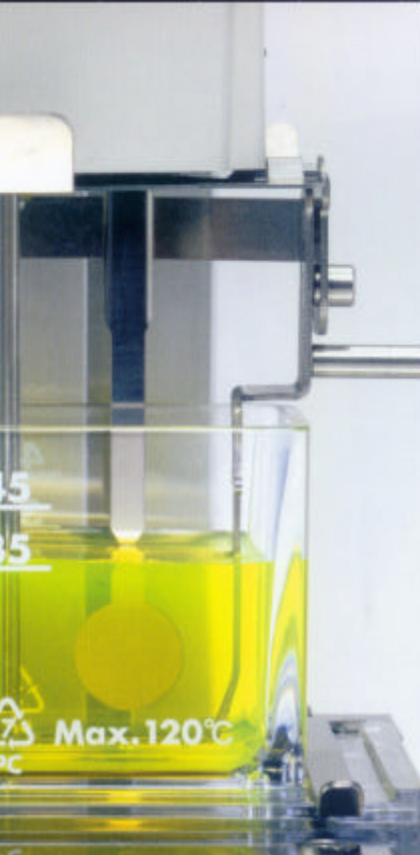
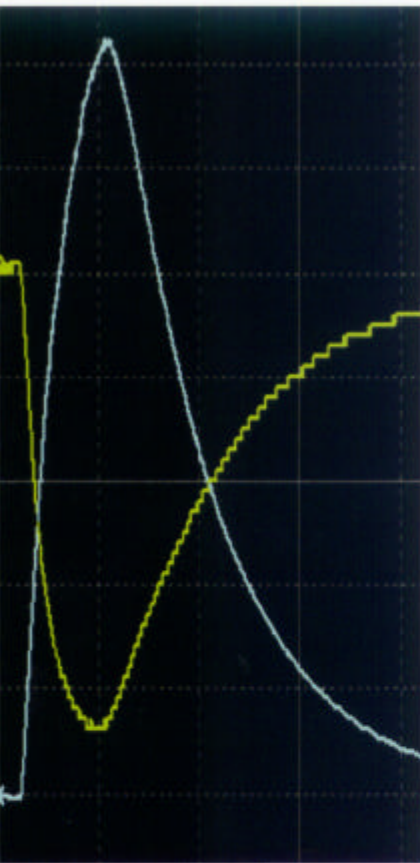
Sine-wave Vibro Viscometer



AND
A&D WEIGHING
...Clearly a Better Value

Sine-wave Vibro Viscometer

Viscometry Revolution!



Newly developed Tuning-fork Vibration Method promises high accuracy and wide measurement range without replacing sensor plates!! (Patent pending)

Sine-wave Vibro Viscometer SV-10 measures viscosity by detecting the driving electric current necessary to resonate the two sensor plates at constant frequency of 30Hz and amplitude of less than 1mm.

- **High Measurement Accuracy**

Tuning-fork Vibration Method ensures excellent repeatability of 1% of reading for viscosity measurement by Sine-wave Vibro Viscometer SV-10.

- **Wide Measurement Range**

Low viscosity of 0.3 mPa-s (cP) to high viscosity of 10,000 mPa-s (cP) sample fluid can be measured without changing the sensor plates.

- **Non-Newtonian Sample Viscosity Measurement**

Thin sensor plates allow little deformation of sample texture and thus enable measurement of stable viscosity values.

- **Foam Sample Measurement**

Low drive frequency of 30Hz allows measurement of foam samples without breaking minute foams and with less influence scattering larger foams.

- **Flowing Sample Measurement**

Even the viscosity of flowing samples can be measured, including liquid in turbulent flow, which enables field management with identical data used at the laboratories.

- **Viscosity Calibration**

With Viscosity Standard, viscosity calibration can be easily done. 1 point calibration or 2 points calibration is selectable in the calibration mode.

- **Temperature Measurement**

Accurate viscosity measurement depends on accurate fluid temperature measurement. The SV-10 quickly detects accurate temperature because the fluid sample and the sensor plates, with their small surface area and thermal capacity, reach thermal equilibrium in only a few seconds.

- **Vacuum Fluorescent Displays**

Easy to read, avoiding unnecessary error reading by 13mm height for viscosity measurement and 11mm height for temperature measurement.

- **Sol and Gel Measurement**

Sol and Gel sample fluid like a starch can be measured during the change of material characteristic.

- **Standard RS-232C Interface**

The RS-232C and connection cable (25 pin - 9 pin) for PC or printer connectivity are standard accessories.

- **Small Sample Size**

Standard sample cup requires the sample fluid of just more than 35 ml, reducing the waste of sample fluid.

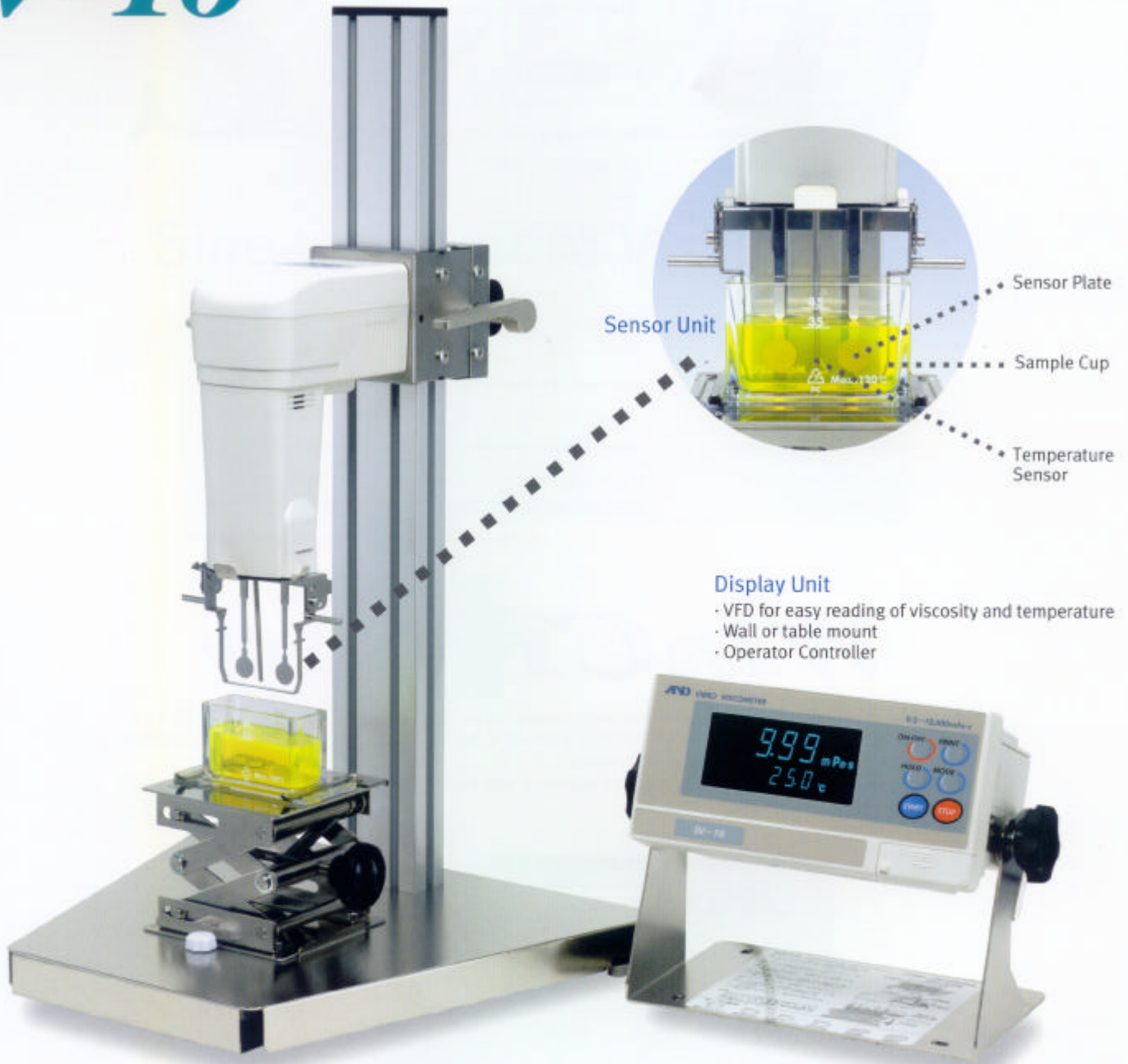
- **Easy Cleaning**

Due to the simple structure, the SV-10's sensor plates, temperature sensor and the protector made of stainless steel (SUS 304) can be easily and quickly cleaned.

- **Data Collection and Graphing Software**

WinCT-Viscosity (RsVisco) software imports the measured data of viscosity and temperature to a PC and graphically displays the changes in real-time analysis.

SV-10

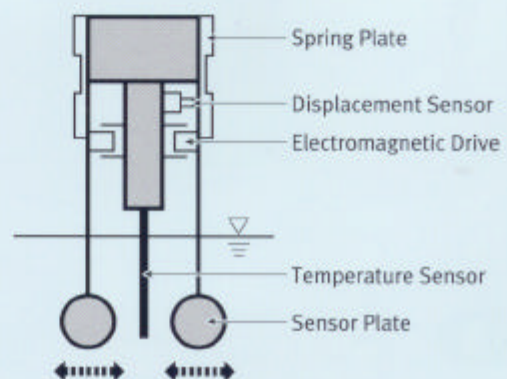


Measurement Principle for SV-10

The SV-10 has 2 thin sensor plates that are driven with electromagnetic force at the same frequency by vibrating at constant sine-wave vibration in reverse phase like a tuning-fork.

The electromagnetic drive controls the vibration of the sensor plates to keep in constant amplitude. The driving electric current, which is exciting force, will be detected as the magnitude of viscosity produced between the sensor plates and the sample fluid.

The coefficient of viscosity is obtained by the correlation between the driving electric current and the magnitude of viscosity.



Specifications:

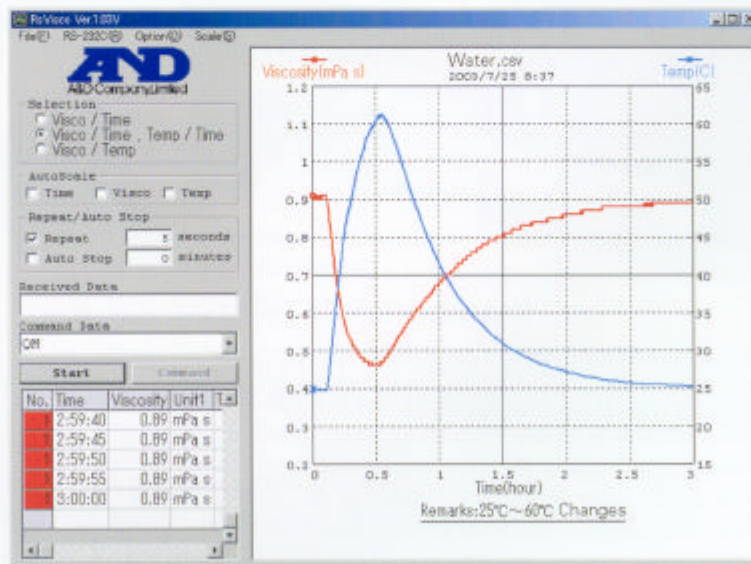
Model	SV-10
Measurement Method	Tuning Fork Vibration Method
Vibration Frequency	30Hz
Viscosity Measurement Unit	mPa·s, Pa·s, cP, P
Viscosity Measurement Range	0.3 – 10,000mPa·s (cP)
Accuracy (Repeatability)	1% of Reading (Full Range) (S.D., 20 – 30°C, No-condensation)
Operating Temperature	10 – 40°C (50 – 104°F)
Minimum Sample Amount	35ml
Temperature Measurement	0 – 100°C /0.1°C (32 – 212°F/0.1°F)
Display	Vacuum Fluorescent Display (VFD)
Interface	RS-232C
Power Supply	AC Adaptor
Power Consumption	Approx. 14VA
Physical Dimensions	Main Unit : 332 (W) x 314 (D) x 536 (H) mm / Approx. 5.0 kg Display Unit : 238 (W) x 132 (D) x 170 (H) mm / Approx. 1.3 kg
Connection Cable Length	1.5m (Between the Main Unit and the Display Unit)
Standard Accessories	Manual , AC Adaptor , CD-ROM (WinCT-Viscosity) Sample Cups , RS-232C Cable (25 pins – 9 pins)

Specifications subject to change for improvement without notice.

WinCT-Viscosity

WinCT-Viscosity (RsVisco) software imports the measurements of viscosity and temperature from the SV-10 to a PC. It automatically displays the measurement result by graph on a real-time basis. The scaling function is available, and the logarithm display is selectable in this function.

Saving the measurement data by "CSV" file and opening it with WinCT-Viscosity is very easy and convenient for analyzing sample fluid viscosity.



1555 McCandless Drive, Milpitas, CA 95035
(800) 726-3364 (408) 263-5333
Fax: 408-263-0119
Fax-On-Demand: 800-726-7099, press 2
Email: scales@andweighing.com
www.andweighing.com