ITIN SCALE COMPANY
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AND SV-1A, Viscometers 0.3cP - 1000 cP

A&D's own technology is setting a new standard for viscosity measurement! Speed? Accuracy? User-friendly? A&D's highly sensitive, tuning-fork vibration viscometer*, the SV-A series, not only completely satisfies these basic requirements, but does more by offering users a number of additional benefits that were once unthinkable with a conventional viscometer.

A&D Weighing

Manufature: AND Weighing
SKU: **SV-1A**
Weight: 20.00 lb

Please Call (800)832-0055

Features

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2ml Sample Measurement
It is possible to perform viscosity measurements with sample liquid as small as 2ml (SV-1A).

Titanium Sensor Plates and Temperature Sensor
The sensors are made of titanium, which is anti-corrosive and resistant to various kinds of chemical substances.

X-Y-Z Stage
Fine position adjustment of the sample cup in three directions. This is especially useful when the sample cup is very small.

Wide-range, Continuous Measurements without Replacing the Sensor Plates
Unlike the rotational viscometer, which requires several different rotors to cover a wide range of measurements, the SV-A series is capable of using the same, fixed sensor plates to perform **continuous measurements** from **very low** to high viscosity [SV-1A: 0.3..1000mPa..s (cP), SV-10A:

0.3..10000mPa..s (cP), SV-100A: 1000..100000mPa..s (cP)].

Simultaneous Measurements of Temperature and Viscosity
It is widely known that viscosity is very temperature dependent (–2~–10%/°C). The SV-A series has a temperature sensor (0~160°C) right next to the viscosity sensor plates,enabling users to easily monitor the relationship between viscosity and temperature.

Sample Temperature Control
A water jacket is provided as standard to be used in conjunction with a commercially available constant heat water tank to heat the circulating system. This ensures that the sample remains at a constant temperature and that the temperature can be changed for viscosity measurement (0 ~ 100°C).

Standard Windows Communication Tools WinCT-Viscosity and a Serial-USB Converter
The graphing program RsVisco receives the viscosity and temperature data from the SV-A series and creates a graph on a personal computer **in real time.** As such, changes in viscosity and temperature over time as well as the correlation between viscosity and temperature can be observed visually.

Example Applications:

- Measure the viscosity necessary for the correction of particle size distribution
- Control the viscosity of resist liquids, inks, coating materials, adhesives, etc.
- Control the viscosity of abrasives for semiconductors, ceramic materials, etc.
- Measure the cure processes of polymers, soldering flux, proteins, and gelation point, etc.
- Detect the cloud points of nonionic surface-active agents
- Measure viscosity variation due to changes in temperature of a lubricant, engine oil, food, etc.
- Quantify the ?gswallowability?h of beverages
- Quantify the physical properties of biological substances, such as blood, etc.

Tuning-fork Vibration Viscometer
The tuning-fork vibration viscometer has a pair of thin sensor plates of the same natural frequency, which are driven with electromagnetic force to vibrate at the same amplitude. The viscidity produced between the sensor plates and the sample liquid is detected based on the amount of electronic current required to drive the sensor plates and maintain them at a constant amplitude.

- The vibration viscometer is accredited as a Japan Calibration Service System (JCSS) standard device by the National Institute of Technology and Evaluation (NITE), along with the capillary viscometer and the rotational viscometer.
- The sensor plates have very small thermal capacity and cause only minute displacement in the sample liquid, which prevents changes to the temperature and the physical properties of the sample.
- Since the two sensor plates vibrate in reverse phase, it is possible to measure the viscosity of a sample while flowing or being stirred.

Very Quick Measurement
The initial viscosity coefficient will be indicated just 15 seconds after starting the measurement. The measured values will then be displayed in real time in response to the changes in viscosity.

High Accuracy
The SV-A series achieves an excellent repeatability of 1% of reading over its full measurement range.

Low Viscosity Measurement
No other viscometer is capable of measuring viscosity from as low as 0.3mPa..s.(SV-1A/10A)

Easy Calibration
Both one-point and two-point calibrations are possible using either viscosity standard liquids (optional) or samples of known viscosities. **Simplified Calibration function**, a one-key operation

that utilizes purified water is also available for the SV-1A/10A.

Clearly Visible Display
Easy-to-read VFD for viscosity and temperature. Only 6 keys for simple operation.

Portable Sensor Unit
The sensor unit can be detached to perform measurements on location at a manufacturing factory, field research, etc. A portable carrying case is also provided as standard.

Specifications

Model	SV-1A	SV-10A	SV-100A
Viscosity Measurement Rang	0.3~1000mPa·s	0.3~10000mPa·s	1~100Pa·s
Measurement Method	Tuning Fork Vibration Method (Natural Frequency at 30Hz)		
Viscosity Measurement Unit	mPa·s, Pa·s, cP, P		Pa·s, P
Repeatability	1% of Reading (S.D., 20~30°C, No condensation)		
Minimum Sample Amount	2ml~	10ml~	
Temperature Measurement	0~160°C / 0.1°C(32~320°F/0.1°F)		
Display	Vacuum Fluorescent Display (VFD)		
Power Supply	AC Adaptor (Approx. 14VA)		
External Dimensions / Mass	Main Unit: 112 (W)x132 (D)x291(H) mm / Approx. 0.8 kg Display Unit: 238 (W)x132 (D)x170(H) mm / Approx. 1.3 kg		
Standard Accessories	Stand for Securing the Sensor Unit, X-Y-Z Stage, Cup Set Software Set (including a Serial-USB Converter) AC Adaptor, Connection Cable (1.5m), Carrying Case		

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