Petrochemical Equipment

Your reliable partner for testing petrochemical products

SKY1003-IV Automated Kinematic Viscometer

SKY1003-IV Automated Kinematic Viscometer is a fully automated, single-bath, benchtop viscometer with a 12-position sample handler for unattended and continuous viscosity testing of transparent and opaque liquids. It combines several unique features,making it the instrument of choice in many applications, ranging from QC to R&D to used oil testing. The specially designed Ubbelohde-style tube covers a 100-fold viscosity range at values between 0.5 mm^2/s and 10,000mm^2/s from 20°C to 100 °C (with optional external chiller).

Features

- Conforming to ASTM D445, D446, ISO 3104, ISO 3105, IP 71, GB/T 265, GB/T 30515 and related specifications
- The iSKvator software determines kinematic viscosity and cleans the capillary tube automatically without any further operator involvement.
- Thermal NTC meniscus detection ensures the test is not affected by sample color or ambient brightness, and can test transparent, dark and opaque petroleum products accurately
- Modified Ubbelohde viscometer tube, each tube covers a 100-fold range, e.g. from 1 to 100mm^2/s
- Viscosity measuring range: 0.5mm^2/s (cSt) to 10,000mm^2/s (cSt)
- Sample preheating for very viscous products, such as wax oils or heavy oils
- Dual solvent system with programmable cycle parameters
- Automated dry the tube with forced air to ensure the accuracy of the test
- Only about 10ml sample is needed for the test
- Low solvent usage: 10-15ml per cycle
- Max. sample throughput: up to 6 tests per hour
- The sample tray can be moved forward, convenient for users to clean up residual samples

- Functions of temperature calibration, viscometer tube calibration and auto-calculation of the viscometer index(VI) values
- Chemically resistant to allow for all common solvents
- 12-position auto sampler for unattended continuous automatic testing, priority samples can also be inserted during testing
- Recording the test data in real-time and results for convenient view and query
- Data exportable to LIMS systems

Specifications	
Standards	ASTM D445, D446, ISO 3104, ISO 3105, IP 71, GB/T 265, GB/T 30515
Temperature Range	20°C ~ 100°C (20°C require external chiller)
Temperature Accuracy	±0.01°C
Timing Accuracy	0.02s
Auto Sampler Capacity	12 positions
Sample Preheating	Ambient ~ 95°C
Bath Capacity	2.5L
Bath Medium	Silicone Fluid
Viscosity Range	0.5~10000mm^2/s (depending on viscometer tube selection)
Viscometer Type	Modified Ubbelohde
Temperature Sensor	PT100 probe
Safety Features	Prompt for lack of solvent Bath over temperature protection Liquid level protection
I/O Port	RS232 * 2
Data Export	LIMS or Printer
Machine Power	⩽1000W
Heater Power	600W
Operating Conditions	5°C~35°C 20~90%RH at 35°C, Non-condensing
Power Supply	AC 220V±10 50/60Hz
Dimensions	400mm(W) × 510mm(D) × 710mm(H)
Weight	60KG (including bath medium)