

miniQV[®]-X

Single-Bath Kinematic Viscometer

For Rapid Kinematic Viscosity of Transparent and Opaque Liquids with ASTM D445 Precision Capability

miniQV[®]-X is a fully automated, single-bath, benchtop viscometer for rapid kinematic viscosity measurement of transparent and opaque liquids with ASTM D445 precision capability. A 25 position sample handler allows unattended processing. The fast-run tube covers a 10-fold viscosity range at values between 5 mm²/s (cSt) and 800 mm²/s (cSt) at 40 °C and 100 °C. The miniQV-X has been optimized for condition monitoring of used oils.

Common Applications

- In-service oil viscosity
- Used oil analysis
- Fleet maintenance
- Condition monitoring

Product Features & Benefits

Compact, robust design

- Temperature range: ambient to 100 °C (± 0.01 °C)
- Viscosity range:
 - 5 mm²/s (cSt) to 800 mm²/s (cSt) in 10-fold increments at 40 °C
 - 5 mm²/s (cSt) to 50 mm²/s (cSt) in 10-fold increments at 100 °C
- Fits in roughly the same bench-top area as an analytical balance
- A well tested CANNON viscometer platform offers reliability and dependable support

High speed analysis

- Analysis time: typically 3 minutes or less per test
- 25 position removable sample handler allows unattended operation
- Follows most ASTM D445 principles but with shorter flow times to accommodate rapid analysis

Fully automated benchtop testing

- Affordable alternative to labor-intensive manual KV testing
- Automates labor intensive tasks of sample measurement and viscometer tube washing
- Single PC manages up to 4 instruments using VISCPRO[®] software

Reduced consumable costs

- ASTM D446/ISO 3105 fast run Ubbelohde-style tube reduces solvent usage/disposal costs
- Low sample volume requirement of just 4 mL to 5 mL per test and solvent consumption of just 8 mL per test
- Uses disposable, low-cost HDPE sample vials

Simplified maintenance & test versatility

- Modular bath for easy maintenance access
- Operators physically replace tubes in minutes, eliminating the need to schedule related service calls
- Single-point temperature calibration avoids tube recalibration costs and maximizes test flexibility
- Standard dual solvent input



Professional installation, VISCPRO[®] data storage and management software, viscometer tube, standards, and a high precision digital thermometer are included



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Ordering Information

miniQV[®]-X Single Bath Kinematic Viscometer consists of the viscometer unit, 25 position sample carousel and external power supply. One viscometer tube, one set of viscosity standards, a case of HDPE vials, a high precision digital thermometer with probe, VISCPRO[®] data storage/management software and professional installation are also included. Specify viscometer tubes when ordering. Computer sold separately.

Description	Part #
100 VAC, 50/60 Hz	9725-A88
115 VAC, 50/60 Hz	9725-A89
230 VAC, 50/60 Hz	9725-A90

Accessories & Consumables

Description	Part #
Viscosity reference standards	various
Replacement silicone bath fluid, 1 L	9726-L40
Vials (polypropylene, round bottom); pack of 1,200	81.2548
Extra sample carousel	81.2509
Spare parts kit (1 year supply)	81.2900
Pedestal base	68.0298

Product Specifications

Dimensions (W x D x H)	Unit: 25.4 cm x 55.9 cm x 61.0 cm (10.0 in x 22.0 in x 23.5 in) Power Supply: 34.3 cm x 39.4 cm x 17 cm (13.5 in x 15.5 in x 6.75 in) Vacuum Pump: 27.9 cm x 20.3 cm x 20.3 cm (11.0 in x 8.0 in x 8.0 in)
Weight	Unit: 20 kg (44 lb) Power Supply (230 volt): 12 kg (26 lb) Vacuum Pump: 7 kg (16 lb)
Shipping dimensions (W x D x H)	73.7 cm x 63.5 cm x 94 cm (29 in x 25 in x 37 in)
Shipping weight (with all items)	64 kg (140 lb)
Max. throughput	20 tests per hour
Automated sample capacity	25
Viscosity range	5 mm ² /s (cSt) to 800 mm ² /s (cSt) in 10-fold increments at 40 °C* 5 mm ² /s (cSt) to 50 mm ² /s (cSt) in 10-fold increments at 100 °C
Timing resolution	0.001 s
Test temperatures & accuracy	40 °C and 100 °C ± 0.01 °C
Minimum sample/solvent volume	4 mL to 5 mL sample/8 mL solvent per test
Operating conditions	15 °C to 30 °C, 10% to 75% relative humidity (non-condensing), Installation Category II; Pollution Degree 2
Electrical specifications	100 VAC, 50/60 Hz; 115 VAC, 50/60 Hz; 230 VAC, 50/60 Hz; 1,000 watt power consumption
Compliance	CE Mark; EMC directive (2004/108/EC); Low voltage directive (2006/95/EC); HI-POT (1900 VDC, 60 sec.); ROHS

Viscometer Tubes

Fast Run Tubes	Part #	Fast Run Tubes	Part #
Kinematic Viscosity Range in mm ² /s (cSt)			
5-50	12.0309	20-200	12.0314
6-60	12.0310	30-300	12.0315
-	-	40-400	12.0316
8-80	12.0311	50-500	12.0317
10-100	12.0312	60-600	12.0318
15-150	12.0313	80-800	12.0319

*Extended tube ranges, below 5 mm²/s (cSt), are available depending on sample and temperature selection. Contact Technical Service for additional information.

CANNON Instrument Company[®] provides a variety of physical property testing equipment and consumables (vials, bath fluids, and reference materials) for your testing needs. To learn more, contact sales@cannoninstrument.com.



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