miniAV<sup>®</sup>-LT is a fully automated, single sample, benchtop viscometer for low temperature (sub-zero) viscosity testing. The viscometer tube covers a 10-fold viscosity range for values between 1 mm<sup>2</sup>/s (cSt) and 20,000 mm<sup>2</sup>/s (cSt) from -20 °C to +30 °C.

#### **Common Applications**

- Jet fuel
- Turbine oils
- Hydraulic fluids
- Transformer oils

# miniAV<sup>®</sup>-LT Single-Bath Sub-Zero Kinematic Viscometer

For Sub-Zero Kinematic Viscosity of Transparent and Opague Liquids ASTM D445/D446, ASTM D1655, ASTM D2532, DEF STAN 91:91, IP71, ISO 3104/3105

## Product Features & Benefits

### D445 precision in a compact, robust design

- Temperature range: -20 °C to +30 °C
- Viscosity range: up to 20,000 mm<sup>2</sup>/s (cSt) in 10-fold increments
- Fits in roughly the same bench-top area as an analytical balance
- Peltier cooling is environmentally friendly and requires no pressurized coolants (an air-water heat exchanger is included)
- A well tested CANNON viscometer platform offers reliability and dependable support

## Fully automated bench-top testing and reduced consumable costs

- Affordable alternative to labor-intensive manual KV testing
- Single PC manages up to 4 instruments using VISCPRO® software
- Automated vial washing & drying reduces vial consumption and replaces manual washing

#### 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<sup>®</sup> data storage and management software, viscometer tube, standards, and a high precision digital thermometer are included



2139 High Tech Road | State College | PA | 16803 800-676-6232 | 814-353-8000 | Fax 814-353-8007

## miniAV<sup>®</sup>-LT Single-Bath Sub-Zero Kinematic Viscometer

### Ordering Information

miniAV<sup>®</sup>-LT Single Bath Sub-Zero Kinematic Viscometer consists of the viscometer unit, air-water heat exchanger, external power supply, waste receiver assembly, one viscometer tube, one set of viscosity standards, a case of glass vials, a high precision digital thermometer with probe, VISCPRO<sup>®</sup> data storage/management software and professional installation. Specify desired factory installed options and viscometer tubes when ordering. Computer sold separately.

NOTE: A source of dry air or nitrogen is required to ensure optimal temperature stability and avoid frequent dessicant replacement.

Description	Part #
100 VAC, 50/60 Hz	9725-A96
115 VAC, 50/60 Hz	9725-A94
230 VAC, 50/60 Hz	9725-A95
230 VAC, 50/60 Hz	9725-A95

### Options

Additional temperature calibrations (for each temperature beyond the first) are also available for an added charge at the time of ordering.

### Accessories & Consumables

Description	Part #
Viscosity reference standards	various
Replacement silicone bath fluid, 5 cSt, 1 L	9726-L41
20 mL vials (glass); case of 40	81.3023
Spare parts kit (1 year supply)	81.2910

### Product Specifications

Dimensions (W x D x H)	$\begin{array}{l} \textbf{Unit:} 25.4\ cm \times 30.5\ cm \times 53.4\ cm \\ (10\ in \times 12\ in \times 21\ in) \\ \textbf{Power Supply:} 34.3\ cm \times 39.6\ cm \times 17.2\ cm \\ (13.5\ in \times 15.6\ in \times 6.8\ in) \\ \textbf{Waste Receiver:} 33.0\ cm \times 39.6\ cm \times 17.2\ cm \\ (13.0\ in \times 15.6\ in \times 6.8\ in) \\ \textbf{Air/Water Heat Exchanger:} 38.6\ cm \times 51.1\ cm \times 34.9\ cm \\ (15.2\ in \times 20.1\ in \times 13.7\ in) \end{array}$
Weight	Unit: 27 kg (45 lb) Power Supply: 11 kg (24 lb) Waste Receiver: 6 kg (13 lb) Air/Water Heat Exchanger: 14 kg (30 lb)
Shipping dimensions (W x D x H)	<b>Box 1:</b> 73.7 cm x 63.5 cm x 94.0 cm; [29 in x 25 in x 37 in] <b>Box 2:</b> 76.2 cm x 58.4 cm x 83.8 cm; [30 in x 23 in x 33 in] <b>Box 3:</b> 15.2 cm x 15.2 cm x 28.0 cm; [6 in x 6 in x 11 in]
Shipping weight (with all items)	98.9 kg (218 lb)
Max. throughput	1 test per hour
Automated sample capacity	1
Viscosity range	Up to 20,000 mm²/s (cSt) in 100-fold increments (depending on viscometer tube selection).
Timing resolution	0.01 s (timing accuracy to ± 0.001 s)
Temperature range & accuracy	-20 °C to 30 °C ± 0.02 °C
Minimum sample/ solvent volume	5 mL sample*/15 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
Data output	RS-232 and RS-485

### Viscometer Tubes

Std Tubes	Part #	Std Tubes	Part #	
KV Range in mm²/s (cSt)		KV Range in	KV Range in mm²/s (cSt)	
1-10	12.0323	100 - 1,000	12.0328	
5 - 50	12.0324	170 - 1,700	12.0531	
10 - 100	12.0325	500 - 10,000	12.0326	
30 - 300	12.033	1,000 - 20,000	12.0327	

CANNON Instrument Company<sup>®</sup> 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.



2139 High Tech Road | State College | PA | 16803 800-676-6232 | 814-353-8000 | Fax 814-353-8007

email: sales@cannoninstrument.com | www.cannoninstrument.com