

**AUTOMATIC
KINEMATIC
VISCOSITY
MEASURING
SYSTEM
model**

AKV-202



Model **AKV-202** has been designed for automatic determination of **KINEMATIC VISCOSITY**. Once a specimen is set the series of processes including timing, cleaning/drying of viscometer tube, and reporting are fully automated. AKV-202 is an economical bench-top system, which saves not only the technician's time but also valuable laboratory floor space and budget.

WIDE RANGE OF SAMPLES: Wide range of Kinematic Viscosity(KV) can be covered with the modified Lanz-Zeitfuchs viscometers. The reverse flow viscometer covers both transparent and opaque samples and also eliminates drainage error.

AUTOMATIC MEASUREMENT: Timing, sample draining, viscometer cleaning/drying, calculating/reporting are automated, saving the time of the experienced hands and improving repeatability.

COMPACT DESIGN: The two-viscometers/one-bath system is housed in a compact housing that is small enough to install on a lab bench.

EASY VISCOMETER REPLACEMENT: Viscometer is mounted to a viscometer holder and the viscometer/holder assembly can be removed from the bath at ease, which assures easy viscometer replacement.

OVERFLOW: The viscometer has a provision of overflow, which eliminates errors from inconsistency in sampling volume as well as thermal expansion of the sample.

VERSATILE CLEANING/DRYING SYSTEM: Two tanks are provided for cleaning and drying the viscometers, which allows quick and efficient cleaning/drying by selecting the best chemicals for the sample.

SPECIFICATIONS:

TYPE:

Bench top automatic KV measuring system with 2 viscometers in 1 bath

RELATED STANDARDS:

ISO 3104, ASTM D445, IP71, etc.

VISCOMETERS:

Modified Lanz-Zeitfuchs viscometers

MEASURING RANGE:

10,000 mm²/s for automatic operation. (Range depends on viscometer.)

MENISCUS DETECTION:

By photo-electric devices with fiber optics

TIMING: 0.00 - 999.99 sec

BATH:

Bath: Stainless Steel bath with drain, 18 liters

Heater: Sheathed heaters, 0.59kW x2

Lighting: Fluorescent light, 6W

Medium: Water (distilled or ion exchanged) for < 75°C,
Colorless/transparent silicon oil (with
PMCC flash point of 190 °C at minimum and
KV of 10-20mm²/s) for >= 75 °C.

BATH TEMPERATURE CONTROLLER:

Temp: Preset at 6 points. Preset point can be set at any temp between 20 and 100. °C

Precision: +/-0.01 °C

Controller: PID control by a micro-processor

CLEANING/DRYING VISCOMETERS:

An automatic cycle consisting of draining sample, injecting chemicals, and drying with air. By vacuum.

Chemicals: BTX for cleaning, Ethanol (Bath Temp <80°C) for drying.
(Ether or Ketone can not be used)

Fume: Fume to be exhausted through trap and hose to outside

DISPLAY:

Test parameters, status, trouble, etc. displayed on fluorescence display module

PRINTER: Thermal printer, 58mm of paper width

COMPUTER OUTPUT:

RS-232C, 1 channel

SAFETY:

Alarms for gas, bath medium level, & bath overheat

POWER REQUIREMENTS:

100, 120, 220 or 240VAC, 2KW

DIMENSION & WEIGHT:

530mmW x 560mmD x 930mmH, 75kg

ORDERING INFORMATION:

STANDARD ACCESSORIES:

1. Viscometers(*)	2pcs
2. Viscometer holders	2sets
3. Beaker	5pcs
4. Clips for spherical joints	4pcs
5. Printer roll papers	1pc
6. Duct hose	5meters
7. Cleaning solvent tanks	2pcs
8. Overflow tank	1pc
8. Drain jars	2pcs
9. Exhaust gas trap	1pc
10. AC Power Cord, 3.0m (<125V)	
Or 2.5m (>220V)	1 pc

*Select 2 viscometers from the table below:

Tanaka Viscometer No.	KV range mm ² /s
TLZ 1	0.75 - 3.75
TLZ 2	2 - 10
TLZ 3	6 - 30
TLZ 4	20 - 100
TLZ 5	60 - 300
TLZ 6	200 - 1,000
TLZ 7	600 - 3,000
TLZ 8	2,000 - 10,000

OPTIONAL ACCESSORIES:

1. Thermometers for bath: for 30, 40, 50, 80 & 100 °C
2. Chiller: Used when differential between room temp. and bath temp. is less than 15 °C.
Thomas TRL-108H (Made in Japan) or Julabo F200 (Made in Germany) is recommended.
3. Silicon oil for bath (17 kg) when bath temperature is set 80 °C or higher.

SUGGESTED SPARES: Printer roll paper 20pcs

Specifications subject to change without prior notice.

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