

Viscosity Measurement

Viscometer type ViscoClock

ViscoClock - time is money!

The ViscoClock is the economically priced introductory model in the field of automatic viscosity (absolute and relative) measurements. Manual measurements with a stopwatch and a trained eye is therefore something of the past because time is money. The Viscoclock is an electronic time-measuring unit used to determine absolute and relative viscosity. It consists of a stand which is used to mount a viscometer or the electronic measuring unit. The two measuring levels are integrated in the stand made of high-quality PPA synthetic material, and the electronic measuring unit is included in a PP casing. The large LCD display allows the measured values to be read off easily.

Features:

- Precision and price down to a point
- High precise viscosity measurement
- Automatic time measurement
- Different type of ubbelohde viscometer available
- Digital LCD display
- Different kind of water bathes available
- Incl. calibration certificate for each viscometer
- Different options for specimen preparation available

Ubbelohde



Viscometer type AVS 470

„Suction“ and „Pressure“ Measurements with just one instrument

The new ViscoSystem® AVS 470 is the first viscosity measuring device that allows “suction” and “pressure” measurements completely independent of a PC. This makes for maximum independence and flexibility, allowing you to set up a measuring station that meets highest requirements even under difficult conditions, e.g. to monitor production or control quality in the polymers industry.

Perfectly Equipped For Fully Automatic Viscosity Measurements

The new ViscoSystem® AVS 470 is a measuring system that includes almost everything you need to take precise and reproducible measurements. All common types of viscosity calculation are already integrated into the device, a small PS2 keyboard is all you need to enter additional data. A serial printer can be used to conveniently document your measuring results. So, in a minimum of space, you can set up a measuring station equal in every way to complex measuring installations in terms of precision and reproducibility.

Working With the ViscoSystem® AVS 470 Is Easy

The ViscoSystem® AVS 470 is very easy to handle. The desired measuring method can be preselected and started on the device. The entire measurement is taken automatically to rule out subjective measurement errors. Once the set pre-heating time is reached, the desired number of measurements are taken while the status of the measurements is indicated on the LC.



Features:

- Precision and price down to a point
- High precise viscosity measurement
- Automatic time measurement
- Serial printer connection
- **The following viscometers can be use with AVS 470:** Ubbelohde viscometers acc. DIN, ASTM, micro Ubbelohde viscometer to DIN, micro Ostwald viscometer, Cannon-Fenske routine viscometer, TC Ubbelohde viscometer, TC micro Ubbelohde viscometer

**Technical data:**

	AVS 470
Dimensions	
Width (mm)	255
Height (mm)	205
Depth (mm)	320
Weight incl. pump module (kg)	5,4
Characteristics	
Measuring range (s)	upto 9,999.99
Resolution (s)	0.01
Measuring range (mm ² /s / cst)	0.35 ... 1,800
Suction (mm ² /s / cst)	0.35 ... approx 5,000
Measured parameter	Flow-through time (s)
Time measuring accuracy (%)	+/- 0.01
Suction up to approx. (mbar)	-160
Pressure up to approx. (mbar)	+160
Preselectable tempering period (min.)	0 ... 20
Preselectable no. of measurements	1 ... 99
Electrical data	
Nominal voltage (±10 %) 50/60 Hz (V)	90 ... 240

Viscosity Measurement

Viscometer type AVS 370

With the new ViscoSystem® AVS 370 you have got a measuring device, which not only measures as precisely and consistently as you expect, but also offers you maximum flexibility and possibilities for future extensions. Furthermore, it also saves valuable space on the laboratory bench.

Now possible for the first time ever: “suction” and “pressure” measurement - with one device

The ViscoSystem® AVS 370 is the first viscosity measuring device, which can be used for both “suction” and “pressure” measurement. This enables simple adjustment of the method of measurement to each sample. This significantly reduces investment costs for measuring stations at which pressure and suction methods are to be used. In most cases, using the AVS 370 also achieves noticeable savings in setting up time.

Can be extended from an affordable individual measuring station up to an 8-sample station

The basic version of the ViscoSystem® AVS 370 is an affordable starter model, which can be used to measure high or low viscosity liquids. In the version for TC viscosimeters it is ideal, e.g. to measure opaque and black fluids. If necessary, each single measuring station can be extended to form a multiple measuring station with PC-controlled multi-tasking. The WinVisco 370 software included in the standard equipment enables parallel operation of two fully equipped AVS 370s, with a total of eight ViscoPump II modules. Each module can measure a different sample using a different method. All the results can be quickly and easily evaluated and documented independently of each other. It could hardly be more flexible!

Up to eight viscosity measurement modules can be controlled with the software WinVisco 370, part of the standard equipment.

Features:

- Precision and price down to a point
- High precise viscosity measurement
- Automatic time measurement
- Different type of Ubbelohde capillaries available
- Step by step user guidance
- Different bath thermostats available for different applications available
- Automatic capillary cleaning (option)
- User friendly windows software available

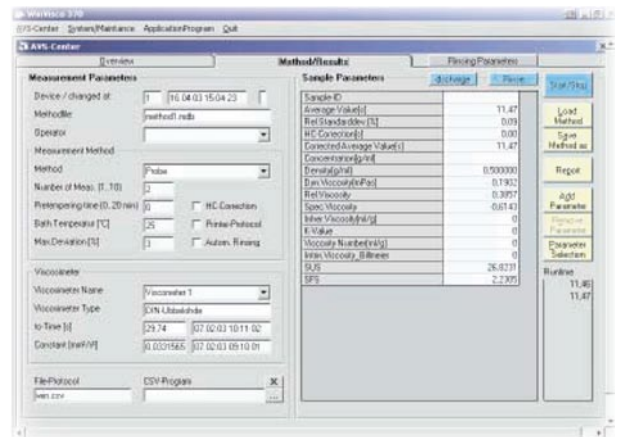


Options:

The WinVisco 370 software is the ideal software for the ViscoSystem® AVS 370. It is supplied as part of the standard equipment. WinVisco 370 is easy to understand and can be quickly learned.

Up to eight viscosity measurement modules can be controlled with only a few operating steps. The device parameters are easy to enter: Constants, t0 flow time, number of measurements, pretempering period, type of viscometer, date and sample labeling for each measuring station.

WinVisco 370 works in real multitasking mode. This makes it possible for each measurement to be processed independently from the others. It also means that time consuming measurements can be carried out from the same PC, without hindering the course of other, faster measurements. All data provided by the software can be passed on to an LIMS system.



All the important parameters required for the measurement are displayed on the "Methods/Results" page. If necessary, the parameter editor can be called up using "Add Parameter", in order to enter non-standard or customer specific formulae.

Technical data:

	AVS 370
Dimensions (for 1 ... 4 modules)	
Width (mm)	255
Height (mm)	205
Depth (mm)	320
Weight incl. pump module (kg)	5,4
Characteristics	
Measuring range (s)	upto 9,999.99
Resolution (s)	0.01
Measuring range (mm ² /s / cst)	0.35 ... 1,800
Suction (mm ² /s / cst)	0.35 ... approx 5,000
Measured parameter	Flow-through time (s)
Time measuring accuracy (%)	+/- 0.01
Suction up to approx. (mbar)	-300
Pressure up to approx. (mbar)	+300
Preselectable tempering period (min.)	0 ... 20
Preselectable no. of measurements	1 ... 10
Electrical data	
Nominal voltage (±10 %) 50/60 Hz (V)	90 ... 240