

Polarimeters

- Instrument for determining the optical rotation of the substances, the concentration, purity, sugar degree or content of active materials such as sugar solution, turpentine oil, camphor...
- Applications: food and feed analysis, oil analysis, sugar content, chemical industries..

404 Polarimeter

- Uses double-vernier in reading.
- Measuring range of Optical rotation : $\pm 180^\circ$.
- Vernier value in reading: $0,05^\circ$.
- Eye piece with diopter adjust.
- Magnification of the reading lens: 4X.
- Maximum length of test tubes: 220 mm.
- Test tubes included: 100 mm and 200 mm.
- Stabilization time: 5/10 min.
- Zero through macro and micro drive.
- Light source sodium lamp: 589,3 nm.
- Dimensions: 540x220x380 mm.
- Weight: 14 Kg.



414 AutomaticPolarimeter WZZ-2

- Photoelectric detector.
- For measuring optical rotation.
- Automatic indication and digital display.
- Display digital 5 LCD.
- Measuring range : $\pm 45^\circ$.
- Accuracy: $\pm 0,01^\circ$.
- Repeatability: $< 0,01^\circ$.
- Minimum sample transmittance 10%.
- Minimum reading: $0,002^\circ$.
- Light source (sodium lamp): (589,44 nm).
- Interface RS232.
- Included: 100 and 200 mm tubes.
- Dimensions: 600x320x220 mm.
- Weight: 28 Kg.



418 AutomaticPolarimeter WZZ-2S

- Automatic measuring of optical rotation.
- Suitable for low transmittance samples.
- Automatic indication and digital display.
- Measuring range: $\pm 45^\circ$.
- Accuracy: $\pm 0,01$.
- Repeatability: $> 1\% < 0,002^\circ$.
- Available minimum sample transmittance: 1%.
- Minimum value in reading: $0,001^\circ$.
- Light source (sodium lamp): (589,44 nm).
- Interface RS232.
- Included: 100 and 200 mm tubes.
- Dimensions: 600x320x220 mm.
- Weight: 30 Kg.



4041 Tube 100 for polarimeter

4042 Tube 200 for polarimeter

4043 Sodium lamp for

4044 Sodium lamp for WZZ

Calibration quartz tubes

Consult

Digital ABBE refractometer

- ABBE refractometer controlled by microprocessor with digital reading.
- Useful for measuring of refractive index n_D in transparent, subtransparent liquid, or solid substances.
- Measuring °Brix for determination of sugar concentration.
- Automatical correction of the affect of temperature on °Brix.
- Interface RS232 to PC conection.

Technical specifications:

- Range of refractive Index n_D : 1.3000-1.7000 n_D
- Accuracy: 0,0002 n_D .
- °Brix range: 0-95%.
- Accuracy: $\pm 0,1$.
- Temperature range: 0-50 °C.
- Correcting range of °Brix versus temperature: 15 °C - 45 °C.
- Include: bottle of monobromine naphthalene, piece for test callibration, screwdriver, and cover.
- Overall dimensions of the instrument: 330x180x380 mm.
- Power supply: 220V/50 Hz
- Weight: 10 kg.

315 Digital ABBE refractometer



ABBE refractometer

- For measuring of refractive indices n_D in transparent and translucent liquid or solid substances.

Technical specifications:

- Reading by scale.
- Range of refractive Index n_D : 1,3000 - 1,7000 n_D .
- Accuracy: 0,0005 n_D .
- °Brix range: 0-95%.
- Accuracy: $\pm 0,25$.
- Thermometer in metallic socket.
- Temperature range: 0-70 °C.
- Magnification of telescopic system: 2x.
- Magnification of reading system: 30x.
- Include: bottle of monobromine naphthalene, piece for test callibration, screwdriver, and cover.
- Overall dimensions of the instrument: 330x180x380 mm

325 ABBE Refractometer



ABBE refractometer

- Useful for measuring of refractive index nD in transparent, semi-transparent liquid, or solid substances.
- Measuring in °Brix.
- Incident or reflected lighting, high brightness.
- Possibility of thermostating of samples through a circulating thermostat (see thermostats section).
- Thermometer with metallic protection.
- Work prism with wide dimensions.
- Complete equipment with calibration piece and Mono bromine naphthalene flask.
- Eyepiece with dioptrical correction.
- Manual temperature correction: 0-100°
 - Reading by scale.
 - Range of refractive Index nD: 1,3000 - 1,7000 nD.
 - Accuracy: $\pm 0,0005$ nD.
 - Scale °Brix: 0 – 95%.
 - Accuracy: 0,25%.
 - Thermometer included: 0-100°C.
 - Illumination: 6V-20 w.
- Dimensions: 205x120x305 mm.
- Weight: 5,0 Kg.

320 **ABBE** refractometer



Portable digital refractometers

- Portable, easy use.
- Microprocessor controlled.
- LCD display with 3 digits.
- Reading by high precision optics cell.
- Response in 3 seconds.
- Automatic temperature correction.
- Reading and conversion of °C and °F.
- Low voltage alarm.
- Automatic disconnecting for no operation.
- 9V battery, included and protection cover.
- Water – proof.
- Sample volume aprox: 0,2 ml.
- Dimensions: 50x185x60 mm.
- Weight: 250 g.

- 309** **Digital refractometer 0-45%**
- Fruits, juices, wines, milk, ...
 - °Brix range: 0-45%.
 - Resolution 0,1 - Accuracy $\pm 0,2\%$ Brix.
 - Refractive index range: 1.3330 – 1.4098.
 - Temperature range: 0-40°C y 32-104°F.

- 310** **Digital refractometer °Brix-Salinidad-nD**
- 0-35% °BRIX
Resolution 0,1% - Accuracy $\pm 0,2\%$ Brix.
- 0 -28% SALINITY
Resolution 0,1% - Accuracy $\pm 0,2\%$ Brix.
- 1.3330 – 1.3900 REFRACTIVE INDEX
Resolution 0,0001 - Accuracy $\pm 0,0003$.

- 311** **Digital clinic refractometer**
- 0-12 g/dl Proteins in serum (Accuracy $\pm 0,1$).
 - 1.000-1.050 sg Specific Density of urine (accuracy 0.001 sg).
 - 1.3330-1.3900 Refractive Index (accuracy 0.0001 nD).



Viscometers VISCOLAN

- Rotational viscometers, for a rapid viscosity determination according to ISO 2555 and other ASTM norms.
- The results are 100% compatible with Brookfield method.
- Accurate and digital torque range measurement.

Technical features:

Temperature

- Digital temperature sensor.
- Temperature range: 0,0°C – 100°C (+32°F.....+212°F).
- Temperature resolution: 0,1°C (0,1722°F).
- Accuracy: $\pm 0,1^\circ\text{C}$.

Speed

- 19 speed can be selected:
 - 0,3 – 0,5 – 0,6 – 1 – 1,5 – 2 – 2,5 – 3 – 4 – 5 – 6 – 10 – 12 – 20 – 30 – 50 – 60 – 100 and 200.
- Accuracy: $>0,5\%$ of absolute value.

Sprindles set

- Each viscometer include a complet set of sprindles.
- Included sprindles:
 - **Version L** (V1L and V2L): 4 sprindles L1-L2-L3 and L4
 - **Versión R** (V1R and V2R): 6 sprindles R1-R2-R3–R5-R6-R7

Viscosity range

- Version L (V1L and V2L): 3-2.000.000 mPas/cP in 76 ranges.
- Version R (V1R and V2R): 20-13.000.000 mPas/cP in 114 ranges.
- Accuracy 1% of full scale.
- Repeatability: $\pm 0,2\%$.
- RS232 Interface to transfer data to a PC or printer.
- Version V2 has a bi-directional RS232 interface to control the viscometer and transfer data to PC.
- Regulable height stand.
- Carrying case for viscometer and sprindles.
- 100-240V-50/60Hz

Microprocessor controlled.

Regulation of the following parameters:

- Speed: r.p.m.
- Dynamic Viscosity: mPas/cP.
- Percentage of full scale: %.
- Sample temperature: °C/°F.
- Maximum range of reading mPas/Cp with selected sprindles.
- Selected spridle.
- V2 model, with special sprindles give us the following measurements:
 - Straining ratio: S.R. 1/s.
 - Twisting force: DINA/cm².



