UniPol L-Series

Laboratory-Polarimeter

SCHMIDT + HAENSCH

Opto-electronic measuring device since 1864

UniPol L-Series

high precision
user friendly
covered

UniPol L-Series

SCHMIDT+HAENSCH is an active member in standardisation organisations. Our contributions have shaped measuring techniques and procedures essentially.
Profound knowledge in research and development are the base for engineering innovative products.

The technology of the Unipol L-series is housed under the elegant housing with large user programmable display and powerful software similar to the SCHMIDT+HAENSCH refractometer ATR-series.
The improved software implements amongst other features the input of sample identification numbers, statistic evaluations of multiple measurements, user definable printouts individually configurable for each of the 4 available methods, etc.

Three different models of the Unipol L-series Polarimeter according to your individual application requirements are available with many options. All models of the Unipol L-series are conforming with the regulations of the European and American Pharmacopoeias as well as to the GLP/GMP standards.

Temperature measurement of the sample is very important to ensure precise and stable measuring results. The Unipol L-series is displaying the actual sample temperature and compensates automatically the temperature deviation compared to the standard temperature when polarimetric tubes or quartz control plates with temperature sensor are used. The scale value (e.g. °Z, °S …) is displayed corrected to the standard temperature.

The two high resolution models Unipol L1000/L2000 are designed to meet high requirements of the quality control and research laboratories.

Main features of the UniPol L-series

- Automatic, digital, circular Polarimeter
- Discontinuous measurement
- 4 independent methods and up to 10 programmable scales
- Stand alone instrument / printer connection / networking capabilities
- User programmable display (individually for ea. of the 4 methods)
- Displays the optical density of the sample
- Automatic multiple measurement with statistical evaluation
- Automatic sample ID generation configurable
- Measurement of the variation of polarisation due to reaction kinetics programmable
- Calibration possibility for the temperature sensors
- User defined printout
- Remote operation from PC possible

UniPol L2000
Resolution
0.001°
2 Wavelength

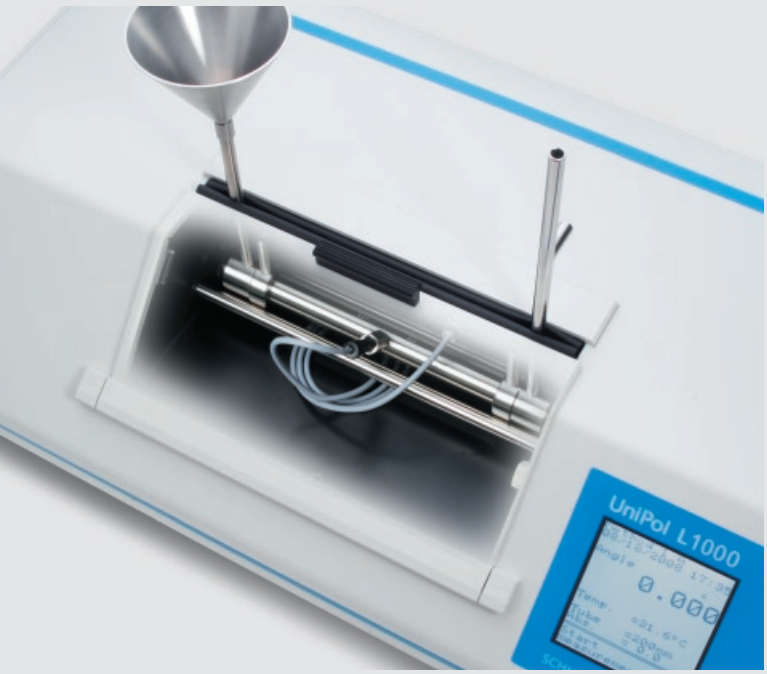
UniPol L1000
Resolution
0.001°

UniPol L
Resolution
0.01°

- Resolution and precision according to European and American Pharmacopoeias
- GLP/GMP conform documentation and printout
- 21CFR Part 11 ready, optional PC software "Aquisys 2008" available
- IQ/OQ/PQ documentation included in the standard delivery
- Latest technology of the optical and electronic components

Technical Data in comparison

Model	UniPol L	UniPol L1000	UniPol L2000
Scale	Optical rotation, international sugar scale, concentration, user defined		
Measuring ranges	± 360°, ± 259°Z		
Measuring units	Angel (°, °Z), specific rotation - concentration (%), user defined		
Resolution	0.01° / 0.02°Z	0.001° / 0.01°Z	0.001° / 0.01°Z
Precision	± 0.01° / ±0.03°Z	± 0.005 / ± 0.02°Z	± 0.005° / ±0.02°Z
Temp. measurement	0 - 99°C		
Temperature precision	± 0.03°C		
Wavelengths	589 nm standard, others on request		405 and 589 nm fixed
Interfaces	1 parallel, 1 PS2, 2 serial RS232, USB/Ethernet Converter opt.		
Dimensions / Weight	650 x 315 x 160 mm (W x H x D), approx. 11.8 kg		
Norms	European and American Pharmacopeia, GLP/GMP conform documentation and printout, 21 CFR Part 11 ready, optional PC software "Aquisys 2008" available		
Features		**Automatic adjustment of beam diameter Automatic self calibration (AWC) f. ambient temp. 17 - 27°C Capable for micro cuvette**	



Polarimeter Applications

Polarimetry is used for quality control, purity control and the determination of concentration of optically active substances.

Food industry
Sugar, starch, milk and dairy products, wine, juice, food auxiliary means, amino acids

Pharmaceutical industry
Enantiomers, chiral substances like soaps, amino acids, organic substances, glucose, fructose, purity control (codeine, cocaine, nicotines, morphine sulfate), ascorbic acid, menthol, camphor, drug recognition

Medicine
Chiral metabolic compounds like sugar and albumin content in urine, hormones, poison analyses, testosterones, enzymes and toxicology

Chemical research
Analysis of optically active substances and structural analyses, inorganic ions in conjunction with optically active substances (e.g. - Bi, - Cd, - Cu, - Fe, - Hg), regulation of materials in solutions, organic substances, turpentine's, Benzene, acids, esters etc.

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ISO 9001:2000