

L LABORATORY

P PROCESS

S SOFTWARE

A AUTOMATION



**SCHMIDT
HAENSCH**
innovators by tradition since 1864

Polartronic® V

High Performance Polarimeter

Our fully automatic circle polarimeter provides continuous measurements with high accuracy and is designed for various applications



Specifications	Polartronic V
Measuring scales	°Optical rotation, °Specific rotation, °Z International Sugar Scale, % Concentration (g/mL, g/100 mL, g/L) up to 1000 scales freely definable
Measuring range	± 89.9° (rotation offset of 90°, 180° or 270° possible) up to 259 °Z
Accuracy	± 0.002° / ± 0.006 °Z
Reproducibility / Precision	± 0.001° / ± 0.003 °Z
Resolution	0.001° / 0.001 °Z
Sensitivity	up to OD 5
Response time	max. 4 s
Sample temperature	0 to 99 °C
Ambient temperature	10 to 40 °C non-condensing
Temperature accuracy, resolution	± 0.1 °C, 0.01 °C
Temperature Control Range	Temperature controlled measuring tubes are available: 100 - 200 mm with funnel, flow-through system or as microtube
Interfaces / Communication	RS232, USB A (2x), Ethernet, WLAN (by WLAN adapter)
Sample chamber	235 mm (for measuring tubes up to 200 mm)
Dimensions	730 x 370 x 160 mm (width x depth x height)
Weight	17.3 kg
Light source	LED, interference filter
Wavelengths	589 nm, 882 nm or 589 + 882 nm (other wavelengths on request)
Power supply	88 - 264 V (47 - 63 Hz)
Current consumption	max. 1.2 A at 230 V
Software	Aquisys2
Display	7" Touchscreen, 800 x 480 Pixel, 16 Bit colors
Peripherals / Operation	Touchscreen I optional: keyboard, mouse, barcode-reader, remote via PC

Polarimeter applications

Polarimetry is an instrumental analytical method using the optical activity by inorganic and organic compounds as a non-destructive measure of their concentration in a solution.

Applications often used

- Determination of concentration
- Purity analysis
- Quality control
- Scientific analysis

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Typical applications of the models

- Raw-, intermediate and final products of sugar cane and beet processing
- Food (sugar, starch, milk and dairy products)
- Chemicals (organic fluids, biopolymers, synthetic and organic polymers, benzene, acids etc.)
- Research (analysis of molecular structure, investigation of kinetic reactions as function of time, distinction of optical isomers, monitoring changes in concentration of an optically active component in a reaction mixture as in enzymatic scission)

