

**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

<b>Measurement scales</b>	°Optical rotation, °Specific rotation, °Z International Sugar Scale, % Concentration (g/mL, g/100mL, g/L) up to 1000 scales freely definable
<b>Measuring range</b>	± 360° / ± 259°Z
<b>Resolution</b>	0.001° / 0,01°Z
<b>Precision</b>	± 0.005° / ± 0,015°Z *
<b>Reproducibility</b>	± 0.001° / ± 0,01°Z
<b>Sensitivity</b>	Up to OD 5
<b>Wavelength</b>	1 or 2 wavelengths fixed: 405, 435, 546, 578, 589, 633, 882 nm (others upon request)
<b>Response time</b>	≤ 4 sec. over the entire measuring range
<b>Measuring tubes</b>	Different Models, 10 to 200 mm length Material: glass, stainless steel, acid-proof stainless steel, stainless steel tubes with integrated temperature sensor***
<b>Temperature measurement</b>	NTC sensor for measurement of sample temperature
<b>Range</b>	0 - 99°C
<b>Resolution</b>	0.01°C
<b>Precision</b>	± 0.1°C
<b>Light source</b>	LED, interference filter
<b>Display</b>	7" Touchscreen, 800 x 480 Pixel, 16 Bit colors
<b>Operation</b>	Touchscreen, keyboard**, mouse**, barcode-reader**, remote via PC**
<b>Interface / Communication</b>	RS232 (1x), USB A (4x), USB B (1x), Ethernet (1x), W-LAN/LAN**
<b>Conformity</b>	International Pharmacopoea, OIML, ASTM, ICUMSA, Australian Standard K157
<b>Highlights</b>	New improved hardware for faster operation; 7" conductive touch display as standard; ready to implement "Aquisys 3" operating system offering: intuitive operation, control via smartphone, connection to third party instruments, industrial standard interfaces, internal data base function, internal 21 CFR Part 11 software
<b>Weight / dimensions</b>	18.3 kg; 730 x 370 x 160 mm (width x depth x height)

\* Standard conditions

\*\* Optional

\*\*\* Certificate on request

### 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

### Typical applications of the models

- Raw-, intermediate and final products of sugar cane and beet processing
- Food (sugar, starch, milk and dairy products)
- Pharmaceuticals (alkaloids, amino acids, organic compounds, vitamins, essential oils etc.)
- 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)