

L LABORATORY

P PROCESS

S SOFTWARE

A AUTOMATION



**SCHMIDT
HAENSCH**
innovators by tradition since 1864

Polartronic N/M *Touch*

Polarimeter



SPECIFICATIONS**POLARTRONIC N TOUCH****POLARTRONIC M TOUCH**

| | | |
|----------------------------------|--|---|
| Measurement scales | °Optical rotation, °Specific rotation, °Z International Sugar Scale, % Concentration (g/mL, g/100mL, g/L) Up to 1000 scales freely definable | |
| Measuring range | ± 360° / ± 259°Z | |
| Resolution | 0.01° / 0,05°Z | 0.001° / 0,01°Z |
| Precision | ± 0.01° / ± 0,05°Z * | ± 0.005° / ± 0,015°Z * |
| Reproducibility | ± 0.01° / ± 0,05°Z | ± 0.005° / ± 0,015°Z |
| Sensitivity | Up to OD 3 | Up to OD 5 |
| Wavelength | 1 or 2 wavelengths fixed: 405, 435, 546, 578, 589, 633, 882 nm (others upon request) | |
| Response time | ≤ 4 sec. over the entire measuring range | |
| Measuring tubes | Different Models, 10 to 200 mm length Material: glass, stainless steel, acid-proof stainless steel, stainless steel tubes with integrated temperature sensor*** | |
| Temperature measurement | NTC sensor for measurement of sample temperature | |
| Range | 0 - 99°C | |
| Resolution | 0.01°C | |
| Precision | ± 0.03°C | |
| Light source | LED, interference filter | |
| Display | 7" Touchscreen, 800 x 480 Pixel, 16 Bit colors | |
| Operation | Touchscreen, keyboard**, mouse**, barcode-reader**, remote via PC** | |
| Interface / Communication | RS232 (1x), USB A (4x), USB B (1x), Ethernet (1x), W-LAN/LAN** | |
| Standard models | Polartronic N 100 TOUCH: 589 nm Polartronic N 101 TOUCH: 882 nm Polartronic N 202 TOUCH: 589 and 882 nm | Polartronic M 100 TOUCH: 589 nm Polartronic M 101 TOUCH: 882 nm Polartronic M 202 TOUCH: 589 and 882 nm |
| Conformity | International Pharmacopoea, OIML, ASTM, ICUMSA, Australian Standard K157 | |
| Highlights | High performance circle polarimeter for common applications; High resolution 7" TFT touchscreen; Documentation GLP/GMP conform; 21 CFRpart 11 ready; Energy saving LED light source | |
| Weight / dimensions | 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)