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# 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)<br>Up to 1000 scales freely definable  |   |
| Measuring range           | $\pm 360^\circ / \pm 259^\circ\text{Z}$  |   |
| Resolution                | $0.01^\circ / 0,05^\circ\text{Z}$  | $0.001^\circ / 0,01^\circ\text{Z}$  |
| Precision                 | $\pm 0.01^\circ / \pm 0,05^\circ\text{Z}^*$  | $\pm 0.005^\circ / \pm 0,015^\circ\text{Z}^*$   |
| Reproducibility           | $\pm 0.01^\circ / \pm 0,05^\circ\text{Z}$  | $\pm 0.005^\circ / \pm 0,015^\circ\text{Z}$   |
| 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             | $\leq 4$ sec. over the entire measuring range  |   |
| Measuring tubes           | Different Models, 10 to 200 mm length<br>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                 | $\pm 0.03^\circ\text{C}$   |   |
| 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<br>Polartronic N 101 TOUCH: 882 nm<br>Polartronic N 202 TOUCH: 589 and 882 nm  | Polartronic M 100 TOUCH: 589 nm<br>Polartronic M 101 TOUCH: 882 nm<br>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;<br>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)



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