

**L** LABORATORY

**P** PROCESS

**S** SOFTWARE

**A** AUTOMATION



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# ATR-P

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## Refractometer

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## SPECIFICATIONS

## ATR-P

Measuring scales	Refractive Index (RI), Sucrose (%Brix) Up to 1000 scales freely definable
Measuring range	1.32000 - 1.54000 RI / 100% Brix
Resolution	0.00001 RI / 0.01% Brix
Precision	± 0,00002 RI / ± 0.02% Brix
Reproducibility	± 0.00001 RI / ± 0.01% Brix
Ambient temperature	+ 10° to + 40°C
Automatic temperature compensation	+ 5° to + 50°C
Temperature measurement	NTC sensor for measurement of sample temperature placed inside the prism
Temperature control Temperature range	Temperature control prism / sample by external water bath 5°C / 50°C
Measurement mode	Single sample or flow through measurement / horizontal or vertical usage
Prism	Sapphire
Light source / wavelength	LED, interference filter 589 nm
Display	7" Touchscreen, 800 x 480 Pixel, 16 Bit colors
Operation	Touchscreen, keyboard**, mouse**, barcode reader**, remote via PC**
Interfaces	1 x RS232 C serial, 3 x USB (A), 1 x USB (B), 1 x Ethernet, Easy connection of keyboard, mouse, printer, barcode reader, PC and network
Conformity	International Pharmacopoea, ASTM, AOAC, DIN, FDA, ICUMSA and others
Highlights	Robust stainless steel measuring head for rough environments; High performance and accuracy; Continuous measurement; ESH <sup>1</sup> chamber; MBS <sup>2</sup> as stand alone with L-Display or polarimeter; Easy calibration; GLP/GMP; With the L-Display: Maintenance friendly by remote diagnostic; Intuitive user handling guided OP system; Installation wizard; Full traceability of records; Ext. LIMS integration; Huge storage for 1000 products each with 1000 methods; 21 CFR part 11 ready conformity <sup>3</sup> <sup>1</sup> Easy sample handling; <sup>2</sup> Modular build-in-system; <sup>3</sup> Optional software module for the L-Display
Weight / dimensions	Measuring Head: 4.5 kg; 200 x 160 x 135 mm (width x depth x height) L-Display: 3.0 kg; 240 x 190 x 150 mm (width x depth x height)

\* Standard conditions (589 nm, 20°C)

\*\* Optional

### Refractometer applications

The applications of Refractometers are highly diverse.

#### Applications often used

- Determination of refractive index
- Determination of dry substance
- Determination of mass percent
- Brix measurement
- Standard scale (Brix)
- with automatic temperature compensation
- Qualitative analysis – identification of samples
- Quantitative analysis of dissolved solids in water or other solvents
- Quantitative analysis of sugars, solves, glycol, oechsle...

#### Typical applications of the model

- Sugar industry (main application)
- Beverages (juices with pulp)
- Samples with suspended particles
- Food (oil from palm, corn, sunflower, soya)



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