

- L** LABORATORY
- P** PROCESS
- S** SOFTWARE
- A** AUTOMATION

ATR-B ATR-F

Refractometer
With ultrafast temperature
regulation



SPECIFICATIONS	ATR-B	ATR-F
Measuring scales	Refractive Index (RI), Sucrose (%Brix) Standard scales included	
Measuring range	1.29000 - 1.58000 RI / 100% Brix	1.32000 - 1.7000 RI / 100% Brix
Resolution	0.00001 RI / 0.01% Brix	0.00001 RI / 0.01% Brix
Precision	± 0,00002 RI / ± 0.02% Brix	± 0,00002 RI / ± 0.02% Brix
Reproducibility	± 0.00001 RI / ± 0.01% Brix	± 0.00001 RI / ± 0.01% Brix
Ambient temperature	+ 10° to + 40°C	
Automatic temperature compensation	+ 5° to + 50°C	+ 5° to + 100°C
Temperature measurement	NTC sensor for measurement of sample temperature placed inside the prism	
Technical data Peltier-thermostat	Temperature control prism / sample by build-in solid state Peltier-thermostat	
Temperature range	+ 5°C / + 80°C	+ 5°C / + 100°C
Resolution	0,01°C	
Precision	± 0.03°C	
Reproducibility	± 0.02°C	
Measurement mode	Single sample or flow through measurement	
Prism	Sapphire	YAG
Light source / wavelength	LED, interference filter 589 nm	
Display	L-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 enclosure for rough environments; High performance and accuracy; Continuous measurement; ESH ¹ chamber; MBS ² as stand alone or with PC; Easy calibration; LED light source; Very low noise; GLP/GMP; 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 ³ ¹ Easy sample handling; ² Modular build-in-system; ³ Optional software module for the L-Display	
Weight / dimensions	Measuring Head: 4.9 kg; 210 x 210 x 160 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 scales (Brix, Oechsle, Zeiss, Fat, Honey) with automatic temperature compensation
- Qualitative analysis – identification of samples
- Quantitative analysis of dissolved solids in water or other solvents

Typical applications of the models

- Pharmaceutical (CFR 21)
- Food, beverage
- Cosmetic (e.g. shampoo, toothpaste, etc.)
- Ketchup
- Sweets
- Marmelade
- Chemical
- Petrochemical



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