

L LABORATORY

P PROCESS

S SOFTWARE

A AUTOMATION



**SCHMIDT
HAENSCH**
innovators by tradition since 1864

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 - 1.70000 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 + 80°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° to + 80°C	+ 5° to + 100°C
Resolution	0.01°C	
Precision	± 0.03°C	
Reproducibility	± 0.02°C	
Measurement mode	Single sample or flow through measurement (with an optional compartment door)**	
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; GLP/GMP; 21 CFR part 11 ready ³ ; LED light source; very low noise; TFT touchscreen; intuitive user handling guided OP system; installation wizard; full traceability of records; huge storage for 1000 products each with 1000 methods ¹ Easy sample handling; ² Modular build-in-system; ³ Optional software module	
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)	



Flow through compartment door available**

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
- Standard methods according to ASTM 1218, 1747 and others

Typical applications of the model

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

* Standard conditions (589 nm, 20°C)

** Optional

