

L LABORATORY

P PROCESS

S SOFTWARE

A AUTOMATION



**SCHMIDT
HAENSCH**
innovators by tradition since 1864

ATR-F

Refractometer



SPECIFICATIONS

ATR-F

Measuring scales	Refractive Index (RI), Sucrose (%Brix) 10 standard scales included: Inverted Sugar (%), Fructose (%), Glucose (%), Honey (% water), Phenol (%), Acetic Acid (%), Oechsle (°Oe), Propylene Glycol (%), Zeiss, H ₂ O ₂ (%), Up to 1000 scales freely definable
Measuring range	1.32000 - 1.7000 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 + 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 / 100°C
Resolution	0,01°C
Precision	± 0.03°C
Reproducibility	± 0.02°C
Measurement mode	Single sample or flow through measurement
Prism	YAG
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
Standard models	ATR-F 342
Conformity	International Pharmacopoea, ASTM, AOAC, DIN, FDA, ICUMSA and others

Highlights

Robust enclosure for rough environments; High performance and accuracy; Continuous measurement; ESH¹ chamber; MBS² as stand alone or with PC; Easy calibration; GLP/GMP; 21 CFR part 11 ready³; LED light source; Very low noise; Maintenance friendly by remote diagnostic; TFT touchscreen; Intuitive user handling guided OP system; Installation wizard; Full traceability of records; Ext. LIMS integration; Huge storage for 1000 products each with 1000 methods

¹ Easy sample handling; ² Modular build-in-system; ³ Optional software module

* 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
- Standard methods according to ASTM 1218, 1747 and others

Typical applications of the model

- Chemical
- Pharmaceutical
- Petrochemical
- Cosmetic