

L LABORATORY

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**SCHMIDT
HAENSCH**
innovators by tradition since 1864

ATR-DC

Refractometer

With ultra high precision



SPECIFICATIONS

ATR-DC

Measuring scales	USG, Refractive Index (RI), %Brix
Measuring range	1.320000 - 1.700000 RI / 100 %Brix
Resolution	0.000001 RI / 0.001 %Brix
Precision	± 0.00002 RI* / 0.015 %Brix
Reproducibility	± 0.000005 RI* / 0.015 %Brix
Ambient temperature	+ 10° to + 40°C**
Automatic temperature control	+ 20.00°C*** / All samples are brought to 20.00°C before measurement
Temperature measurement	NTC sensor for measurement of sample temperature placed inside the prism
Technical data Peltier-thermostat	Temperature control prism and sample by build-in solid state Peltier-thermostat
Temperature range	20.00 °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	Universal 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	High performance and accuracy; Continuous or stop-and-go 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 external display
Weight / dimensions	Measuring Head: 4.9 kg; 210 x 210 x 160 mm (width x depth x height) Universal Display: 3.0 kg; 240 x 190 x 150 mm (width x depth x height)

* Standard conditions (589 nm, 20°C)

** Recommended 18-28°C, no big temperature variations during measurement

*** others on request

**** 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
- Scales 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 (21 CFR part 11)
- Drug Dispensing Pharmacies
- Hospital