DIGITAL ABBE REFRACTOMETER AL-21

Code: AL-21 GST: 18% Brand: AVAIN LABS









AVAIN LABS® DIGITAL ABBE REFRACTOMETER AL-21

The AVAIN LABS® Digital Abbe Refractometer AL-21 is a high-precision laboratory instrument designed for accurate measurement of the refractive index (nD) of transparent and translucent liquids and solids, as well as the Brix concentration of sugar solutions. Equipped with an intuitive LCD display, visual aiming system, and automatic temperature compensation, the AL-21 delivers reliable and repeatable results for research laboratories, food processing, pharmaceuticals, chemical industries, beverage...

Built with a durable hard glass prism and advanced digital electronics, the AL-21 ensures superior performance while simplifying routine testing and quality control processes. The integrated RS-232 interface allows easy data transfer and connectivity with computers and laboratory management systems for efficient documentation and analysis.

Key Features

- High-precision measurement of the refractive index (nD) of transparent and translucent liquid and solid samples.
- Accurate determination of Brix concentration (0–100%) in sugar solutions.
- Bright and easy-to-read LCD display with visual aiming system.
- Automatic Temperature Compensation (ATC) for Brix measurements ensures dependable results regardless of sample temperature variations.
- Durable hard glass prism for long service life and excellent chemical resistance.
- Built-in temperature detection and display functionality.
- Multiple measurement modes for versatile laboratory applications.
- RS-232 communication interface for data export and computer connectivity.
- Suitable for quality control, research, production monitoring, and educational laboratories.

Applications

The AVAIN LABS® AL-21 Digital Abbe Refractometer is ideal for:

- Food and beverage industry
- Sugar and confectionery manufacturing
- Pharmaceutical laboratories
- Chemical and petrochemical industries
- Research and development laboratories
- Academic and educational institutions
- Quality control and inspection laboratories

Technical Specifications

Standard Accessories Included

- Calibration Standard
- Hex Key
- 3 × Replacement Lamps (6.3V, 0.25A)
- RS-232 Communication Cable
- Software CD
- Main Power Lead
- Operating Manual
- Protective Dust Cover

Why Choose AVAIN LABS® AL-21?

The AVAIN LABS® Digital Abbe Refractometer AL-21 combines laboratory-grade precision with ease of use, making it an excellent choice for professionals requiring dependable refractive index and Brix measurements. Its robust construction, automatic temperature compensation, and computer connectivity make it a valuable addition to any modern laboratory.

Specifications

Model	AVAIN LABS® AL-21
Measurement Modes	Refractive Index, Brix Measurement, Automatic Temperature Detection
Refractive Index Range (nD)	1.30000 – 1.70000
Brix Measurement Range	0 – 100%
Refractive Index Accuracy	±0.0002 nD
Brix Accuracy	±0.1%
Refractive Index Resolution	0.0001 nD
Temperature Range	0°C – 50°C
Temperature Resolution	0.1°C
Display	Digital LCD Display
Prism Material	Hard Optical Glass
Communication Interface	RS-232
Gross Weight	12 kg
Dimensions (L × W × H)	370 × 240 × 470 mm

Available models (3)

Cat. No.	Size	HSN
AL-21-S1	100 g	
AL-21-S2	1 kg	
AL-21		

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