

Digital Laboratory Refractometers – Abbemat 3X00, Anton Paar



The compact Abbemat 3X00 refractometers are characterised by reliability, precision, and convenience: Abbemat refractometers offer a unique combination of technical expertise and user-friendly operation for measuring the refractive index and concentration. Thanks to premium technology and the compact design of the Abbemats 3X00, time-consuming measurements are replaced by highly efficient quality assurance processes. Optionally, a concentration can be output directly simultaneously with measuring the refractive index. In addition to the pre-installed concentration scales (refractive index, Brix, fructose, invert sugar, sucrose), more than 100 additional scales are available on request. Choose from three refractometers developed to match any type of application and any budget.

The Abbemat 3000 measures the sample temperature to an accuracy of $\pm 0.05^\circ\text{C}$ and is equipped with an automatic temperature compensation. The Abbemat 3100 and the Abbemat 3200 additionally have an integrated Peltier element for accurate control of the sample temperature.

Technical data:

Resolution nD: ± 0.0001 / 0.01 % Brix
 Accuracy nD¹⁾: ± 0.0001 / 0.05 % Brix
 Temp. probe accuracy¹⁾: $\pm 0.05^\circ\text{C}$
 Wetted parts: Sapphire, FFKM, stainless steel
 Light source: LED light source
 Wavelength: 589 nm
 Minimum sample volume: approx. 0.2 ml
 Measuring time: approx. 5 seconds per sample (after temp. equilibration)
 Default methods: Refractive Index, Brix, glucose, fructose, invert sugar, sucrose

Additional methods: More than 100 scales available on request (e.g. syrup, honey, alcohol, urine, serum, acids, bases)

Data interface: RS-232, 2 USB ports, 1 USB serial, Ethernet

User interface: 5.8 inch touchscreen

Dimensions (W×H×D): 228 × 94 × 300 mm

Weight: < 4.7 kg

¹⁾ valid at refractometric standard conditions ($T = 20^\circ\text{C}$, $\lambda = 589 \text{ nm}$, ambient temperature = 23°C)



Type	Measuring range nD	Temperature	Order No.
Abbemat 3000	1.30 – 1.66	Temperature adjustment	10 63 33000
Abbemat 3100	1.30 – 1.66	20°C and 25°C	10 63 33100
Abbemat 3200	1.30 – 1.72	15°C to 60°C	10 63 33200

We grant 3 years' warranty for these devices. All repairs are free during this period of time.

