

Digital Abbe Refractometer

A refractometer measures the extent to which light is bent (i.e. refracted) when it moves from air into a sample and is typically used to determine the index of refraction (aka refractive index or n) of a liquid sample.

The refractive index is a unit-less number, between 1.3000 and 1.7000 for most compounds, and is normally determined to five digit precision.

The refractive index is commonly determined as part of the characterization of liquid samples, in much the same way that melting points are routinely obtained to characterize solid compounds. It is also commonly used to:

- * **Help identify or confirm the identity of a sample by comparing its refractive index to known values.**
- * **Assess the purity of a sample by comparing its refractive index to the value for the pure substance.**
- * **Determine the concentration of a solute in a solution by comparing the solution's refractive index to a standard curve.**

BGD 252 Digital Abbe Refractometer can be used widely in petroleum, chemical, pharmaceutical, sugar refining and food industries, as well as in related colleges, universities and scientific research institutions for measuring the refractive index n_D of transparent or sub-transparent liquid, or solid substance. It also can be used to measure the Brix (BX) of the sugar solution, and to correct the effect of temperature on the Brix automatically.

- ◆ Visual aim and LCD display
- ◆ Correct automatically effect of temperature on the Brix.
- ◆ Prism is made of hard glass
- ◆ RS232 interface



Main Technical Parameters:

★ Measurement range (refractive index) : 1.3000 – 1.7000	Concentration 0 – 95%
★ Measurement precision (refractive index) : ± 0.0002	Concentration $\pm 0.1\%$
★ Min. reading (refractive index) : 0.0001	Concentration 0.1%
★ Range of temperature correction: 15°C ~ 45°C	
★ Display scope of temperature: 0 ~ 50°C	
★ Weight of instrument: 10KG	
★ Size: 330mm × 180mm × 380mm	
★ Ordering information: BGD 252---Digital Abbe Refractometer	