

Reichert® Precision Abbe Refractometers

Get more precise readings easily

Ideal for pharmaceutical, industrial fluid, chemical, petrochemical, plastic, and food/beverage industries. Each model features four measurement modes: % solids (Brix), % solids (temperature-compensated Brix), refractive index, and refractive index (temperature compensated). Automatic temperature compensation (ATC) corrects measurements to 20°C or any other user-defined reference temperature.

Each model features two RS-232 serial ports for communication to a PC or printer. The stainless steel enclosed prism is sealed with solvent-resistant epoxy to prevent damage from harsh chemicals. Long-life internal LEDs provide illumination for greater than 100,000 hours. Automatic temperature equilibration detection software on each model ensures that the sample and prism temperature is stable, providing accurate and precise measurements.

Arias 500 Model 81001-20 offers semi-automatic measurement capability. Align the shadowline image anywhere in the crosshair target and press “read.” The OptiMatrix dual LSA detectors automatically locate the actual shadowline eliminating manual interpretation. Illumination source is 589 nm, requiring no color correction by the operator. Unit measures in two levels of resolution: high precision at two significant digits % solids (Brix) and five significant digits (RI); or standard precision at one significant digit % solids (Brix) and four significant digits (RI).

Mark III Model 81001-30 offers manual measurement capability. Align the shadowline intersect across the crosshair target and press “read.” The single LSA detector interprets the placement of the shadowline and displays measurement on the LCD screen. Unit measures in standard precision only—one significant digit % solids (Brix) and four significant digits (RI). Additional features include multilanguage capability, date-and-time stamping, password protection, and up to fourteen programmable custom scales.

What’s included: calibration oil, dust cover, and three 5-ft (1.5-m) power cords (US, EU, and UK).



81001-20



81001-30



Specifications

Sample volume: 0.1 mL (minimum)

Output: two RS-232 serial ports

Model	Range	Resolution	Accuracy	ATC	Power	Catalog number	Price
Arias 500	0.00 to 95.00% Brix, 1.30000 to 1.70000 RI	0.01% Brix, 0.00001 RI	±0.03% Brix, ±0.00005 RI	50 to 104°F (10 to 40°C)	110 to 240 VAC, 50/60 Hz	GH-81001-20	
Mark III	0.00 to 95.0% Brix, 1.3000 to 1.7000 RI	0.1% Brix, 0.0001 RI	0.1% Brix, 0.0001 RI			GH-81001-30	

Accessories

[GH-81001-50](#) Replacement lamp. Pack of 3

[GH-81001-60](#) Replacement standard solution for model 81001-20; 7 mL of 1-bromonaphthalene

[GH-17105-00](#) NIST-traceable calibration with data for refractometers



Refractive Index Standard Solution Sets

Don't risk inaccurate readings

Calibrate your refractometer with these NIST-traceable standard solution sets. Each set includes solutions in 0.25 oz (7.4 mL) glass bottles (see table for number of liquids), plastic screw cap, and glass applicator rod. All solutions are standardized at 25°C.

Range	Accuracy	No. of liquids	Interval	Catalog number	Price/st
1.300 to 1.395	±0.0005	20	0.005	GH-81006-00	
		10	0.01	GH-81006-02	
1.400 to 1.458	±0.0002	30	0.002	GH-81006-04	
		15	0.004	GH-81006-06	
1.460 to 1.640	±0.0002	46	0.004	GH-81006-08	
		15	0.004	GH-81006-10	
1.705 to 1.800	±0.0005	20	0.005	GH-81006-12	
		10	0.01	GH-81006-14	