

AR2008 | Digital Abbe Refractometer



Fields of application:

Determination of mixing ratios, quality and quantity inspection in the following industries:

- Pulp and paper industries
- Chemical industry
- Beverage industry
- Food industry
- Sugar and sweetener industry
- Textiles industry
- Metalworking industry
- Petrochemical industry
- Wastewater management

The AR2008 Digital Abbe Refractometer features electronic data evaluation. The refractive index or Brix value can be read from an LCD display, together with the temperature. Automatic temperature compensation can be optionally activated. The AR2008 has a thermostat connector for prisms. Measurement values with the date and time of measurement can be transferred directly to a PC or printer via a serial interface. A 589nm integrated light source for the prism is present. The AR2008 is highly robust. Delivery includes a glass calibration plate, contact fluid and a screwdriver.



Common Specifications		
Measurement range	Sugar scale	0-95% Brix
	Refractive index	1.3000-1.7200nD
	Temperature	0-99°C
Resolution	0.0001nD	0.1% Brix
	Temperature	0.1°C
Accuracy	Refractive index	0.0002nD 0.1% Brix
Autom. Temperature compensation	0-90°C	
Interface	serial RS-232 9600 Baud serial RS-422 9600 Baud	
Power supply	110/230V, AC, 50/60Hz, 40VA	



AR4 and AR4D | Abbe Refractometers



AR4

- Simple operation and low sample quantity requirements.
- Very robust. Supplied together with a glass calibration plate, contact fluid and a screwdriver
- Ideal for solid, viscous and liquid samples (transparent and opaque)
- Measurement of the refractive index n_D , the dispersion $n_F - n_C$ and the dry matter content in Brix is possible, and the prism is temperature controlled
- The measurement process is based on Abbe's law
- Includes digital thermometer
- Both devices comply with ASTM D1218

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AR4D

Common Specifications

Display AR4D	Readings via scale window and ocular
Display AR4	Readings via ocular
Illumination	Scale illumination, LED-illumination (590 nm) for prism
Accuracy	0.1% Brix; 0.0002nD
Measurement range	0-95% Brix solids content (sugar scale); 1.3000-1.7000 nD
Power supply	110 V or 220 V, switchable
Scale division	0.25% Brix; 0.0005 nD
Thermometer	Digital thermometer: -40° bis 120°C
Dimensions AR4D	230 x 110 x 270 mm
Dimensions AR4	140 X 100 X 235 mm
Weight AR4D	5.5 kg
Weight AR4	4.4 kg
Special features	Adjustable scale, prisms can be temperature-controlled

AR2 and AR2L | Abbe Refractometers

- Top price-performance ratio
- Very robust. Delivery includes a glass calibration plate, contact fluid and a screwdriver
- Temperature controlled, includes digital thermometer
- The AR2L also includes LED illumination

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Common Specifications

Display	Readings via ocular
Illumination	AR2: without illumination
	AR2L: with LED illumination
Accuracy	0.2% Brix; 0.0003nD
Measurement range	0-95% Brix solids content (sugar scale); 1.300-1.700 nD
Power supply	without power supply
Scale division	0.5% Brix; 0.001 nD
Thermometer	Digital thermometer: -40° - 120°C
Dimensions	300 x 150 x 150mm
Weight	4.9 kg
Special features	Adjustable scale



AR2

Refractometer Accessories

PT31 | Peltier thermostat



This electronic water-bath thermostat with Peltier element is a versatile, high-performance instrument. In one application, for example, it can be used to set the correct refractometer temperature. It is extremely robust, compact and easy to operate. Because it is so small it does not take up valuable space in the laboratory.

Specifications PT31	
Resolution	0.1°C
Heating power	30W
Cooling power	15W
Power supply	115-230 VAC
Pump performance	2000 Pa
Pump pressure	20l/h
Temperature	8° to 40°C (continuously adjustable)
Temperature accuracy	±0.2°C
Dimensions	L/B/H 140x80x210mm
Weight	1.5kg

CBM910 | Printer



24 character normal paper printer for digital refractometers from the DR6000 Series and the AR2008 Abbe Digital Refractometer, as well as for our P8000 Series Digital Polarimeters

AR15 | Funnel Flow Cell Bulb



Funnel Flow Cell Bulb upgrade for AR4 and AR2008

AR16 | Flow Cell Bulb



Flow Cell Bulb upgrade for continuous measurement with the AR4 and AR2008

Refractometer calibration solutions



- **RI34** calibration solution 1.3400nD (=5% Brix), for calibration of HR10, HR18, HRN/HRT32, HR25/800 and HR900/901
 - **RI39** calibration solution 1.3900nD (35% Brix), for calibration of HRN/T62, HR25/800, HR900/901 and Abbe refractometers
 - **RI43** calibration solution 1.4300nD (55% Brix), for calibration of Abbe refractometers and HRN/HRT62
 - **RI48** calibration solution 1.4800nD (76% Brix), for calibration of Abbe refractometers and HRN82 and HR92
 - **RI65** calibration solution 1.6500nD for calibration of Abbe refractometers
- All bottles contain 30cc and are supplied with a certificate