

Refractometers

The Giorgio Bormac Company presents a complete line of refractometers, portable and benchtop, of excellent quality for the normal controls of production in the various industry sectors and food. All models are supplied ready to use with calibration kit and padded case.



Digital refractometers

DBR series refractometers with digital reading ideal for laboratory and production. Simple to use, just a drop of sample on the prism of reading and the display will show the concentration, enough with difficult to assess optical scales. Also suitable with colored or turbid samples.



DBR 35
DBR 45
DBR Salt



DBR 95

Benchtop and portable

The DBR refractometers are benchtop instruments that can be easily moved where needed. Their maneuverability make them ideal for use in any location. The sample holder cell, made of anticorrosion stainless steel is suitable for any liquid, ensures excellent cleaning and prolonged use of the instrument.

Temperature Compensation

The refractive index of a sample is linked to the temperature. The DBR automatically compensate for the refractive index due to a built-in microprocessor.

Automatic calibration

The CAL key allows automatic calibration of a point using water as standard.

Display for reading and degree of protection

The instruments allow you to determine and display, alternately, the different parameters. On their LCD display you can read the %Brix for the concentration of sugars, refractive index nD, salinity (DBR Salt) and temperature °C of the sample. In addition, the watertight IP66 allows use even in adverse environmental conditions, with high humidity and splashes.

Measuring range	DBR 35	DBR 45	DBR Salt	DBR 95
% Brix	0,0 ÷ 35,0	0,0 ÷ 45,0	0,0 ÷ 35,0	0,0 ÷ 95,0
Refractive index nD	1,3333 ÷ 1,3900	1,3333 ÷ 1,4098	1,3333 ÷ 1,3900	1,3330 ÷ 1,5400
% Salinity	-	-	0,0 ÷ 28,0	-
Temperature °C	0,0 ÷ 40,0	0,0 ÷ 40,0	0,0 ÷ 40,0	0,0 ÷ 40,0
Division				
% Brix	0,1	0,1	0,1	0,1
Refractive index nD	0,0001	0,0001	0,0001	0,0001
% Salinity	-	-	0,1	-
Temperature °C	0,1	0,1	0,1	0,1
Accuracy				
% Brix	± 0,2	± 0,2	± 0,2	± 0,5
Refractive index nD	± 0,0005	± 0,0005	± 0,0005	± 0,0003
% Salinity	-	-	± 0,2	-
Temperature °C	± 0,5	± 0,5	± 0,5	± 1
Working temperature °C	10 ÷ 40	10 ÷ 40	10 ÷ 40	-10 ÷ 50
Response time sec.	2	2	2	1
Sample quantity (min) ml.	1	1	1	1
Calibration	With water	With water	With water	With water
Power supply	2 x AAA batteries	2 x AAA batteries	2 x AAA batteries	1 x 9V battery
Dimensions	135 x 65 x 70	135 x 65 x 70	135 x 65 x 70	185 x 100 x 55
Weight	180 g	180 g	180 g	225 g

How to order

Code	Description
44000033	DBR 35 digital refractometer, % Brix and refractive index reading.
44000043	DBR 45 digital refractometer, % Brix and refractive index reading.
44000053	DBR Salt digital refractometer, % Brix, refractive index and salinity reading.
44000063	DBR 95 digital refractometer, % Brix and refractive index reading.



Power supply, warranty and packaging

The functioning of the instruments is ensured by batteries whose life is guaranteed by the auto-off feature. For manufacturing defects warranty is 2 years. Refractometers are supplied with a protective soft case with the exception of the model DBR 95.

Optical refractometers

A full line of portable and benchtop refractometers, of excellent quality, for the normal controls of production in various industry sectors and food.

All models are supplied ready to use with calibration kit and padded case.



Mod. 101 Refractometer 0–32% Brix

The model most widely circulated, for all quality controls in food sector where you need to check the sugar content in fruit juices, syrups, must, milk, soft drinks. Also suitable for the control of lubricants and oils emulsified.

Parameter	Scale	Accuracy
% Sugar	0-32%	± 0,2%
Code 4300013 - cover without lighting		

Mod. 101ATC Refractometer 0–32% Brix with temperature compensation

As the model 101 but with automatic temperature compensation (ATC), with this model it is not necessary to do any manual correction.

Parameter	Scale	Accuracy
% Sugar	0-32%	± 0,2%
Code 43000203 - cover with LED lighting 		
Code 43000103 - cover without lighting		

Mod. 102 Refractometer 28–62% Brix

Used for solutions that are high in sugar as concentrated fruit juice, jam, ketchup and egg mixture.

Parameter	Scale	Accuracy
% Sugar	28-62%	± 0,2%
Code 43000023 - cover without lighting		

Mod. 103 Refractometer 0–80% Brix

It covers all the needs of the products described above.

Parameter	Scale	Accuracy
% Sugar	0-80%	± 0,5%
Code 43000223 - cover with LED lighting 		
Code 43000033 - cover without lighting		

Mod. 107 Double-scale must refractometer

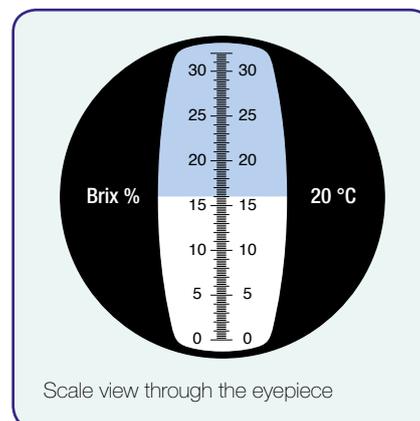
Measure the sugar content in the must.

Parameter	Scale	Accuracy
Brix	0-35%	± 0,2%
Babo	0-28	± 0,2
Code 43000233 - cover with LED lighting 		
Code 43000123 - cover without lighting		

Mod. 104 Triple-scale honey refractometer

With a single model can do two controls on honey: % sugar and water content.

Parameter	Scale	Accuracy
% Sugar	58-92%	± 0,5%
Water content	12-27%	± 1%
Beaume	38-43°Bè	± 0,5°Bè
Code 43000043 - cover without lighting		



Optical refractometers

Mod. 105 Triple-scale clinical refractometer

Measure the protein concentration, the specific weight of the urine (Specific Gravity) and the refractive index (nD). Need only few drops of blood serum or plasma, urine, or albumin.

Parameter	Scale	Accuracy
Serum / Albumin	0-12g/dL	± 0,2g/dL
Urine specific gravity	1,000-1,050 SG	± 0,002 SG
Refractive index	1,3330-1,3600 nD	± 0,0005 nD

Code 43000053 - cover without lighting

Mod. 106 Refractometer for salinity 0-28%

Measures the content of salt in water, expressed as sodium chloride, but it can be calibrated for other types of salt.

Parameter	Scale	Accuracy
% Sale	0-28%	± 0,2%

Code 43000063 - cover without lighting

Mod. 106 ATC Refractometer salinity 0-100 ‰ temperature compensation

Like the previous model but with double scale and with automatic temperature compensation

Parameter	Scale	Accuracy
‰ Salt	0-100‰	± 1‰
specific gravity	1,000-1,070	± 0,001

Code 43000113 - cover without lighting

Mod. 414 ATC Refractometer for antifreeze and batteries temperature compensation.

Allows to know the freezing point of mixtures of propylene glycol and ethylene glycol. Can also be used to check the efficiency of the electrolytic solution of the batteries.

Parameter	Scale	Accuracy
Ethylene Glycol	-50°C-0 °C	1°C
Propylene Glycol	-50°C-0 °C	1°C
Cleaner - Detergent	-40°C-0 °C	5°C
Fluid batteries	1.10-1.40 sg	0.01sg

Code 43000173 - cover without lighting

Mod. 110 Abbe Rifrattometro nD 1,3000-1,7000 Brix 1,0-95,0%

Benchtop refractometer with thermostatic prism complete of digital thermometer, calibration prism and transport case.

Parameter	Scale	Accuracy
Refractive index (nD)	1,3000-1,7000	± 0,0002
% Brix	0,0-95,0%	± 0,25%

Code 43000133

Brix

The scale in degrees Brix (%) shows the percentage concentration of the soluble solids content of a sample as an aqueous solution.

The soluble solids content is the total of all the substances dissolved in water such as sugars, salts, proteins, acids, etc., And then the measurement read is the total of all these. Conventionally the Brix (%) is considered as the number of grams of cane sugar contained in 100ml of solution (25% means 25g of sugar and 75g of distilled water). So, when measuring a pure sugar solution, the Brix level corresponds exactly to the real content. With solutions containing other compounds, if you want to know quantitatively the concentration of a compound, are necessary conversion tables.

UKAS ISO/IEC 17025
Paragon Scientific Ltd
STANDARD RIFRATTOMETRICI CERTIFICATI DI SACAROSIO

Certified refractometric sucrose standards with high accuracy for the calibration of all types of optical or digital refractometers laboratory and portable. These standards are always supplied with a UKAS certificate (equivalent ACCREDIA) in accordance with ISO / IEC 17025.



Abbe mod. 110 with carrying case

REFRACTOMETERS 4/15 REL. 1.1

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