

# REFRACTOMETERS

## Optical and digital



### Brix

The scale shows the percentage concentration of the soluble solid contents of a sample as an aqueous solution. The soluble solids content is the total of all substances dissolved in the water such as sugars, salts, proteins, acids, etc., and therefore the measurement red is the total of all these.

Conventionally the Brix degree (%) is considered as the number of grams of cane sugar contained in 100ml of solution (25% means 25g of cane sugar and 75g of distilled water).

With solutions containing other compounds, if you want to quantitatively know the concentration of a compound, you need conversion tables.

WARRANTY  
**2**  
YEARS



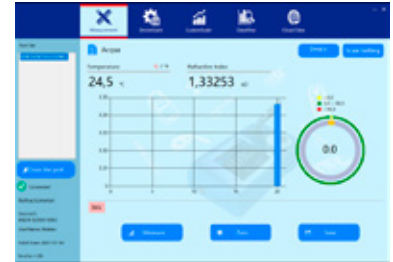
# Digital Refractometers

Line of digital refractometers ideal for laboratory and production. Easy to use, just a drop of sample on the reading prism and the concentration will appear on the display. Also suitable for cloudy or colored samples. The sample holder cell, in anti-corrosion stainless steel, suitable for any liquid, ensures excellent cleaning and prolonged use of the instrument.

## DBR 95

- Brix (%) - Refractive index (nD) and temperature showed simultaneously
- High contrast colored display
- Long life rechargeable battery, auto Off.
- USB connection and free software included
- Custom scales
- Automatic temperature compensation
- Average function: recording of values in series, for better reliability
- Automatic calibration on 0% Brix (deionized water)
- IP 66

Supplied in a carrying case, with power supply, USB Software cable, user manual.



Software supplied with the DBR 95, for remote control and creation of customized scales

## STANDARD BUFFER SOLUTIONS

High accuracy certified refractometric standards of sucrose for the calibration of all types of optical or digital laboratory and portable refractometers.

These standards are always supplied with a UKAS certificate (ACCREDIA equivalent) in accordance with the standards **ISO / IEC 17025**.

The entire range of solutions are available on the site [www.giorgiobormac.com](http://www.giorgiobormac.com)



## DBR 55 / SAL

- Shows %Brix and Temperature
- Backlit display
- Memory 20 savings
- Automatic calibration on 0% Brix (deionized water)
- Non-slip Protective case
- IP 66
- Sample Volume required: 0,5 ml

DBR 55 is especially designed for the food sector:  
fruit juices, syrups, milk, jam, etc.

\*DBR SAL, measures salinity (salt content in water) expressed in % NaCl

MEASURING RANGE	DBR 95	DBR 55	DBR WINE	DBR SAL	DBR COFFEE
Brix (%)	0,0...95,0	0,0...55,0	0,0...55,0	0,0...28,0*	0,00...26,00
Refractive index (nD)	1,3330±1,5318	1,3330±1,4308	1,3330±1,3776	1,3330±1,4308	1,3330±1,3740
Temperature (°C)	0...40,0 °C	0...70,0 °C	0...70,0 °C	0...70,0 °C	0...70,0 °C
°Be	--	--	0,0...29,8	--	--
Babo	--	--	0,0...46,4	--	--
TDS (%)	--	--	--	--	0,00...23,00
RESOLUTION					
Brix (%)	0,1%	0,1%	0,1%	0,1%	0,01%
Refractive index (nD)	0,0001	--	--	--	--
Temperature (°C)	0,1°C	0,1°C	0,1°C	0,1°C	0,1°C
ACCURACY					
Brix (%)	± 0,3	± 0,2	± 0,2	± 0,2	± 0,20
Refractive index (nD)	± 0,0002	--	--	--	--
Temperature (°C)	± 0,3 °C	± 1,0 °C	± 1,0 °C	± 1,0 °C	± 1,0 °C
FEATURES					
Power	Rechargeable battery 3,7V	2X AAA 1,5V Batteries	2X AAA 1,5V Batteries	2X AAA 1,5V Batteries	2X AAA 1,5V Batteries
Dimensions (mm)	180 x 100 x 55	58 x 36 x 122	58 x 36 x 122	58 x 36 x 122	58 x 36 x 122
Weight (gr)	410	150	150	150	150
Part number	<b>44000063</b>	<b>44000073</b>	<b>44000093</b>	<b>44000053</b>	<b>44000083</b>

## DBR WINE

DBE WINE: Indispensable in every cellar measurement of the sugar content of the must with different units: % Brix, ° Be, ° Babo, KMW e ° Oe (Oechsle).

Determination of the probable alcoholic strength by volume (TAVP).

## DBR COFFEE

**Brew Ratio Function** (Infusion rapport),

It determines the correct concentrations of the components for the preparation of an excellent coffee.

Download the APP Bluetooth for free , useful to check the infusion rapport (EXT %).

Supplied with case, batteries, pipette, user manual.



DBR WINE



DBR 55 / SALT



DBR COFFEE



# Optical refractometers



**ATC**  
Model with automatic temperature compensation

**101**



## Refractometer 0-32% Brix

For the food sector, fruit juices, syrups, musts, milk, soft drinks. Also for lubricants and emulsified oils.

Model	p/n	Parameter	Scale	Accuracy
101	<b>43000013</b>	Brix %	0,0 - 32,0%	± 0,2%
101 ATC	<b>43000103</b>			
101 ATC LED	<b>43000203</b>			

**102**



## Refractometer 28-62% Brix

For solutions with an high sugar content: concentrated fruit juices, jam, ketchup and egg mix.

Model	p/n	Parameter	Scale	Accuracy
102	<b>43000023</b>	Brix %	28,0- 62,0%	± 0,2%

**103**

## Refractometer 0-80% Brix

For general use, wide reading range

Model	p/n	Parameter	Scale	Accuracy
103	<b>43000033</b>	Brix %	0,0 - 80,0%	± 0,5%
103 LED	<b>43000223</b>			

**104**

## Refractometer triple scale

For checks on honey: % sugar and water content.

Model	p/n	Parameter	Scale	Accuracy
104	<b>43000043</b>	Brix %	58 - 90 %	± 0,5 %
		H2O	12 - 27 %	± 1 %
		Beaume	38 - 43 °Bè	± 0,5 °Bè

**414**



## Refractometer for antifreeze and batteries

Shows the freezing point in propylene and ethylene glycol mixtures. Check the efficiency of the batteries.

Model	p/n	Parameter	Scale	Accuracy
414 ATC	<b>43000173</b>	Ethylene glycol	-50 - 0 °C	1 °C
		Propylene glycol	-50 - 0 °C	1 °C
		Detergent cleaner	-40 - 0 °C	5 °C
		Battery fluid	1.10-1.40 sg	0.01 sg

**UREA**

## Refractometer 0-40% Urea

For the measurement of urea

Model	p/n	Parameter	Scale	Accuracy
UREA	<b>43000193</b>	% Urea	0,0 - 40,0 %	± 0,2 %

### Led Lid

It allows an optimal reading even in absence of light. The lid is interchangeable and compatible with all models of optical refractometers in the catalog.

The internal battery allows use for approximately 10,000 readings

Part number: 43000003



**105**



## Clinic Refractometer triple scale

It measures the concentration of proteins, the specific weight of the urine and the refractive index.

Model	p/n	Parameter	Scale	Accuracy
105	<b>43000053</b>	Serum / Albumin	0,0 - 12,0 g/dL	± 0,2g/dL
		Urine specific weight	1,000-1,050 SG	± 0,002 SG
		Refractive index	1,3330-1,3600 nD	± 0,0005 nD

**106**



## Salinity Refractometer 0-28%

It measures the salt content in water, expressed as sodium chloride, but can also be used for other types of salt.

Model	p/n	Parameter	Scale	Accuracy
106	<b>43000063</b>	Salt %	0,0 - 28,0 %	± 0,2%

**106 A T C**



## Salinity Refractometer 0-100 ‰

Double scale and automatic temperature compensation

Model	p/n	Parameter	Scale	Accuracy
106 ATC	<b>43000113</b>	Salt ‰	0-100‰	± 1‰
		Specific weight	1,000-1,070	± 0,001

**107**



## Refractometer for must, double scale

Measure the sugar content in musts.

Model	p/n	Parameter	Scale	Accuracy
107	<b>43000123</b>	Brix %	0,0 - 35,0 %	± 0,2%
107 LED	<b>43000233</b>	Babo %	0,0 - 28,0 %	± 0,2%

**ABBE**

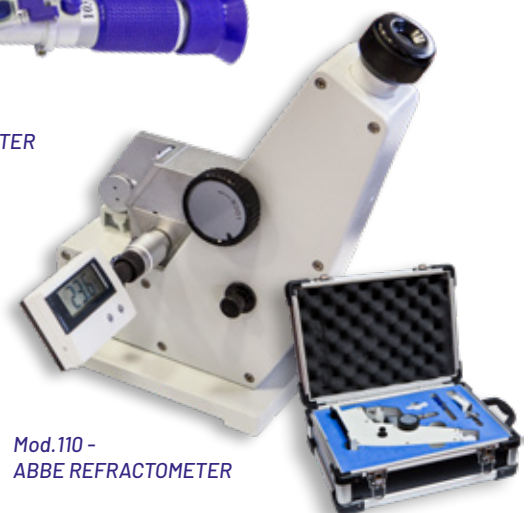
## Abbe Refractometer 0,0-95,0% Brix

Bench refractometer with thermostatable prism complete with thermometer, calibration prism and transport case.

Model	p/n	Parameter	Scale	Accuracy
110 - Abbe	<b>43000133</b>	Refractive index nD	1,3000-1,7000	± 0,0002
		Brix %	0,00-95,00%	± 0,25%



OPTICAL REFRACTOMETER



Mod.110 - ABBE REFRACTOMETER