Main features

1| Supplied in a plastic case with sample pipettes, carrying case, screwdriver, blinkers and rubber handle.

2| A refractometer is a measuring instrument based on the refractive index of light passing through a sample placed on a prism. The Zuzi pocket refractometers with LED light allow you to instantly measure the concentration of your samples over a wide range of scales. You can measure your samples in a wide range of applications by determining sugar concentration, salinity or alcohol percentage, unaffected by ambient light, thanks to the built-in LED.

3|The portable light refractometer models are constructed with a robust metal body and a rubber handle and eyepiece. In addition, they include the necessary elements for calibration: distilled water, sugar solution or test tube with naphthalene bromine.

4| Calibration is performed by zeroing with distilled water.

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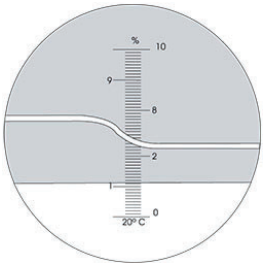
Scan the QR code
so you don't miss anything!

Resume chart of refractometers

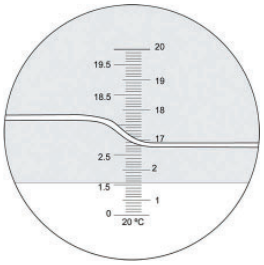
Type	No CAT	CAT (10-30ºC)	LED	Range	Accuracy	Calibration
BRIX		HPD012		0 - 10%	0.1 %	Distilled water
		HPD013	HPD026	0 - 20%	0.1 %	Distilled water
		HPD014	HPD027	0 - 32%	0.2 %	Distilled water
		HPD015	HPD028	28 - 62%	0.2 %	Solution 28%sugar/water
		HPD016	HPD029	45 - 82%	0.5 %	Solution 45%sugar/water
		HPD017		58-92%	0.5 %	Solution 58%sugar/water
		HPD018	HPD030	58 - 92% Bx 38 - 43 º Bé 12 - 27% Water	0.5 % Bx 0.5 º Bé 0.5 % Water	Bromonaphtalene + test piece
		HPD019		0 - 50%	0.5 %	Distilled water
		HPD020		0 - 80%	0.5 %	Distilled water
		HPD010		0 - 42% Bx 42-71% Bx 41-90 % Bx	0,2 %	Distilled water
		HPD011		0 - 90% Bx	0.5 %	Distilled water
SALINITY		HPF004		0 - 100‰ Salt 1000-1070 g/mL	1‰ 0.001 g/mL	Distilled water
		HPF005		0 - 28% Salt	0.2 %	Distilled water
		HPF007	HPF010	0 - 100‰ Salt 0 - 10% Bx 1000-1070 g/mL	1 ‰ 0.1 % 0.001 g/mL	Distilled water
		HPF012		0-4% Salt (0-40ppt) 1,000-1,030sg	±0,1% Salt (1ppt) ±0,001sg	
		HPF013		-4% Salt (20-40ppt) 1,015-1,030sg	0,1% Salt (1ppt) ±0,001sg	
CLINICAL		HPM002		0 - 12 g/dl Serum protein 1.000 - 1.050 Specific weight (sg) 1.333 - 1.360 nD (refractive index)	0.2 % g/dL 0.002 sg 0.005 nD	Distilled water
VETERINARY	HPM003			2 - 14 g/100 mL Serum protein 1.000 - 1.060 Specific weight	0.1 0.001	
MUSTS AND SPIRITS		HPP014		0 - 80% Alcohol (w/w)	1 %	Distilled water
		HPH003	HPH014	0 - 25% Alcohol probable 0-22º Bé 0-40% Bx	0.2 % Alcohol probable 0.2º Bé 1 % Bx	Distilled water
		HPH002	HPH013	0 - 25% Alcohol probable	0.2 % Alcohol probable	Distilled water
		HPP017		0-32% Brix Gravity must thickness: 1,000-1,130	±0,2% Brix ±0,001	
		HPP018		0-18 Plato	±0,1 Plato	
FRUIT JUICE		HPH015		0-190º Oe 0-38º KMW Babo 0-44% Brix sacch	±2º ±0,4º ±0,4%	
MILK		HPP002		-1%-20%	0.2%	Distilled water
		HPP019		0-25% Soya 0-32% Brix	±0,5% Soya ±0,2% Brix	
BATTERIES AND FREEZES		HPK002		-50 a 0 ºC (EG/PG) 1.15 - 1.30 sg (Batteries -40 a 0 ºC (Cleaner)	5 ºC 0.01 sg 5ºC	Distilled water
		HPK004		-50 a 0 ºC (EG/PG) 1.15 - 1.30 sg (Batteries) -40 a 0 ºC (Cleaner)	5 ºC 0,01 kg/L 5º C	Distilled water
		HPK005		-50 a 0 ºC (EG/PG) 1.10 – 1.40 Kg/L (Batteries) -40 a 0 ºC (Cleaner)	5 ºC 0.01 Kg/L 10ºC	Distilled water
	HPK008			-50 a 0 ºC (EG/PG) 1.10 – 1.40 Kg/L (Batteries) 30-35% (Cleaner)	5 ºC 0.01 Kg/L 10ºC	Distilled water
REFRACTIVE INDEX	HPP003			1.333-1.400 nD 1.400-1.470 nD 1.470-1520 nD	0.0005 nD	



0-10% Brix

1| Suitable for samples with low concentration of dissolved solids (lower than 10%) as
for example tomatoes, low concentrated juices and industrila oils.
2| Calibration is performed with distilled water adjusting to zero.

Code	Range	Accuracy
HPD012	0-10% Bx	0.1%

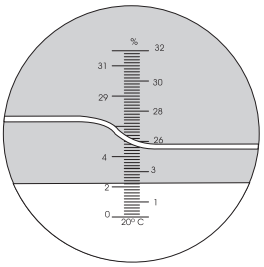


0-20% Brix

1| Suitable for low concentrations (juices of fruits, alcohol-free beverages) except grape juice.
2| Calibration is performed with distilled water.

Code	Range	Accuracy
HPD013	0-20% Bx	0.1%
HPD026*	0-20% Bx	0.1%

**LED refractometer*

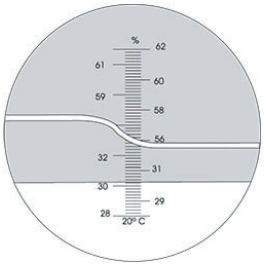


0-32% Brix

1| Suitable for low concentrations usually used for fruits, juices, beverages, dairy products, milk products, industrial oils...
2| Calibration is performed with distilled water.

Code	Range	Accuracy
HPD014	0-32% Bx	0.2%
HPD027*	0-32% Bx	0.2%

**LED refractometer*

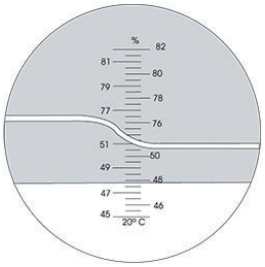


28-62% Brix

1| Suitable for low concentrations usually used for fruits, juices, beverages, dairy products, milk products, industrial oils...
2| Calibration is performed with a 28% sugar solution in distilled water, that means 28 g of sugar in a 100 ml of solution.

Code	Range	Accuracy
HPD015	28-62% Bx	0.2%
HPD028*	28-62% Bx	0.2%

**LED refractometer*

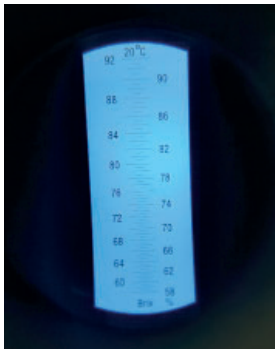


45-82% Brix

1| Model suitable for high concentration as for example condensed milk, liquid caramel, high concentrated juices, jams,etc.
2| Calibration is performed with a 45% sugar solution in distilled water, that means 45 g of sugar in a 100 ml of solution.

Code	Range	Accuracy
HPD016	45-82% Bx	0.5%
HPD029*	45-82% Bx	0.5%

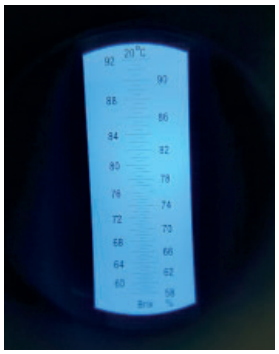
**LED refractometer*



58-92% Brix

1| Model for high concentrations of sugar in honey.
2| Calibration is performed with 58% sugar solution in distilled water, that means 58 g of sugar in a 100 ml of solution.

Code	Range	Accuracy
HPD017	58-92% Bx	0.5%

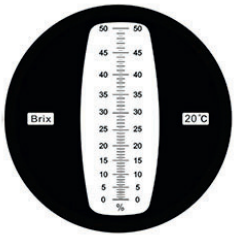


58-92% Brix | 38-43 º Baume | 12-27% Water

1| This refractometer is specially suited for analyzing the three main values in honey;
sugar content, Baumé degrees and water content.
2| Calibration is performed with a test piece and bromonaphtalene, both included.

Code	Range	Accuracy
HPD018	58-92% Bx	0.5%
	38-43 ºBé	0.5º
	12-27% Water	0.5%
HPD030*	58-92% Bx	0.5%
	38-43 ºBé	0.5º
	12-27% Water	0.5%

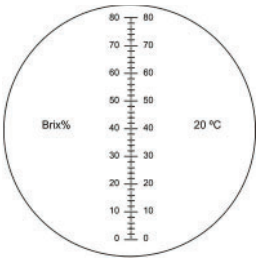
**LED refractometer*



0-50% Brix

1| Model used for concentrated solutions of grape juice.
2| Calibration is performed with distilled water.

Code	Range	Accuracy
HPD019	0-50% Bx	0.5%



0-80% Brix | 0-80% Brix (2 escalas)

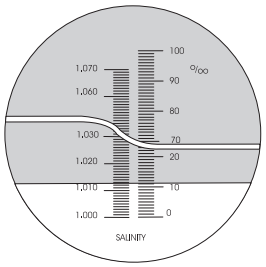
1| This refractometer has a wide range 0-80% Brix, suitable for analyzing very different types of samples.
2| The line in this model is in blue or white.
3| It is used for fruit juices, alcohol-free beverages or even industrial oils.
4| Calibration of models HPD009 and HPD020 is performed with distilled water.

Code	Range	Accuracy
HPD020	0-80% Bx	0.5%

0-90% Brix | 0-90% Brix (3 scales)

1| Has a wide range 0-80% Brix, it allows the measurement of very different types of samples.
2| Calibration is performed with distilled water (model HPD011)

Referencia	Rango	Precisión	CAT (10-30ºC)
HPD011	0-90% Bx	0.5%	Sí
HPD010	0-90% Bx (0-42% ; 42-71%; 41-90%)	0.2%	Sí

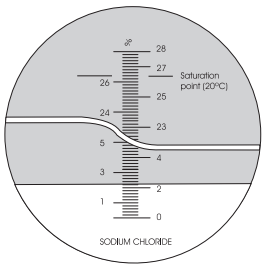


0-100‰ Salt

1| Refractómetro de Accuracypara concentraciones medias de Salt bien en agua de mar natural o artificial, preparados alimenticios, etc. Dispone de escala de peso específico.
2| La calibración se realiza conDistilled water.

Code	Range	Accuracy
HPF004	0-100‰ Salt 1000-1070 g/L	1‰ 0.001 g/L
HPF007	0-100‰ Salt 0-10% Bx;1000-1070 g/L	1‰ 0.1%; 0.001
HPF010*	0-100‰ Salt 1000-1070 g/L	1‰ 0.001 g/L

**LED refractometer*



0-28% Salt

1| Suitable to measure Saltt concentration of sea water, fish farms, aquariums, brines...
2| Calibration is performed with distilled water.

Code	Range	Accuracy
HPF005	0-28% Salt	0.2%

0-4% and 2-4% Salt (2 scales)

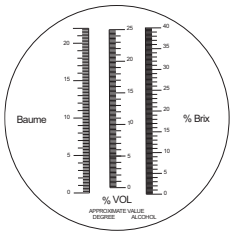
Code	Range	Resolution	Accuracy
HPF012	0-4% Salt (0-40ppt) 1,000-1,030sg	0,1% Salt (1ppt) 0,001sg	±0,1% Salt(1ppt) ±0,001sg
HPF013	2-4% Salt (20-40ppt) 1,015-1,030sg	0,1% Salt (1ppt) 0,001sg	±0,1% Salt(1ppt) ±0,001sg

0-25% probable alcohol - oenology

1| Refractómetro especialmente diseñado para medición del probable alcohol en uva.
2| Dispone de Compensación Automática de Temperatura (Range10-30ºC).
3| La calibración se realiza conDistilled water.

Code	Range	Accuracy
HPH002	0-25% probable alcohol	0.2%
HPH013*	0-25% probable alcohol	0.2%

**LED refractometer*

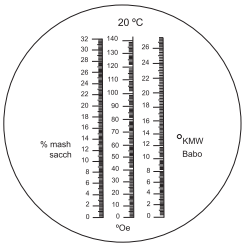


3 scales - oenology

1| Suitable to measure alcohol content in grape juice, Baumé degrees and Brix degrees, thus allowing to check the ripening level of grapes before and during the harvest.
2| Calibration is performed with distilled water.

Code	Range	Accuracy
HPH003	0-25% probable alcohol 0-22º Bé; 0-40% Bx	0.2% 0.2º 1%
HPH014*	0-25% probable alcohol 0-22º Bé; 0-40% Bx	0.2% 0.2º 1%

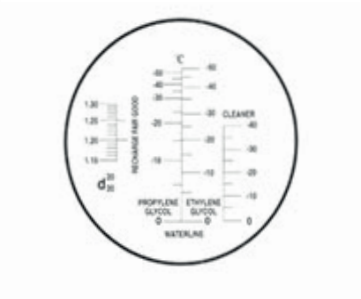
**LED refractometer*



3 scales - oenology

1| Suitable to measure alcohol content in grape juice, Baumé degrees and Brix degrees, thus allowing to check the ripening level of grapes before and during the harvest.
2| Calibration is performed with distilled water.

Code	Range	Accuracy
HPH015	0-190º Oe 0-38º KMW Babo 0-44% Brix sacch	±2º ±0,4º ±0,4%



Refractómetro baterías

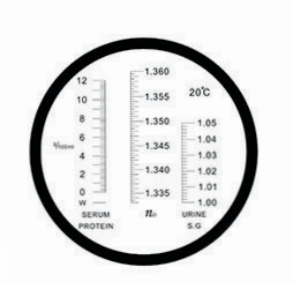
1| Suitable for measuring the freezing point of antifreezes based on propylene glycol and ethylene glycol, as well as the state of electrolytic solutions of batteries and cleaning liquids.
2| Calibration is performed with distilled water.

Code	Solution	Range	Accuracy
HPK002	Antifreeze	-50 a 0 ºC (EG/PG)	5 ºC
	Electrolytic solution	1.15-1.30 sg	0.01 sg
	Cleaning liquid	-40 a 0 ºC	5ºC
HPK004*	Antifreeze	-50 a 0 ºC (EG/PG)	10º C
	Electrolytic solution	1.15-1.30 sg	0,01 kg/L
	Cleaning liquid	-40 a 0 ºC	5º C

** reference available while stocks lasts*

Code	Solution	Range	Accuracy
HPK005	Antifreeze	-50 a 0 ºC (EG/PG)	5ºC
	Electrolytic solution	1.10-1.40 Kg/L	0.01Kg/L
	Cleaning liquid	-40 a 0 ºC	10ºC
HPK008	Antifreeze	-50 a 0 ºC (EG/PG)	5ºC
	Electrolytic solution	1.10-1.40 Kg/L	0.01 Kg/L
	Cleaning liquid	-40 a 0 ºC	10ºC
	UreaAddblue	30-35 %	0.2%

Code	Solution	Range	Accuracy
HPK006	Antifreeze	-50 a 0 ºC (EG/PG)	5 ºC
	Electrolytic solution	1.15-1.30 sg	0.01 sg



Hand, clinical 3 scales

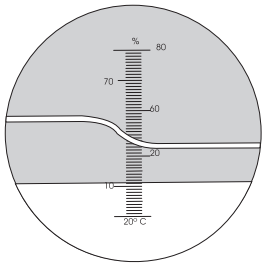
1| It has three scales; proteins in serum, urine specific gravity and refractive index.
2| Calibration is performed with distilled water (the separating line must match the value 1.333 of the refractive index scale).

Code	**Range**	**Accuracy**
HPM002	0 - 12 g/dl	0.2 % g/dL
	1.000-1.050 sg	0.002 sg
	1.333-1.360 nD	0.005 nD

Hand, clinical URIVET

1| Designed for veterinary use, especially for the analysis of cats and dogs serum. Simple, easy and fast, only with a drop it gives you a result.

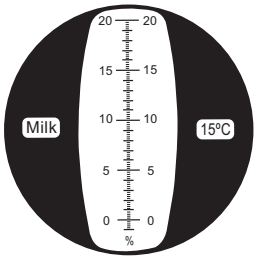
Code	Range	Accuracy
HPM003	2-14 g/100 mL	0.1 g/100 mL
	1.000-1.060 sg	0.001 sg



Hand refractometer

1| Suitable to measure the alcohol degree in a solution, it can be used for wines and spirits taking into consideration other parameters.
2| Calibration is performed with distilled water.

Code	Range	Accuracy
HPP014	0-80% Alcohol (w/w)	1%



Refractometer for milk

1| Suitable for measuring the water content in milk.
2| Calibration is performed with distilled water.

Code	Range	Accuracy
HPP002	-1%-20%	0.2%
HPP019	0-25% Soya 0-32% Brix	±0,5% Soya ±0,2% Brix

Refractometer 1.333-1.520 nD, 3 scales

1| For measuring the dissolved solid concentration (%Brix) or refractive index (nD) of aqueous solutions.
2| Allow the analysis of a large variety of samples since they are provided with 3 scales that cover a wide range of measurement.

Code	Range	Accuracy
HPP003	1.333-1.515 nD (3 scales) (1.333-1.400 nD 1.400-1.470 nD 1.470-1520 nD)	0.0005 nD

Hand beer refractometer

Code	Range	Accuracy
HPP017	0-32% Brix	±0,2% Brix
	Specific gravity of must: 1,000-1,130	±0,001
HPP018	0-18 Plato	±0,1 Plato

Accesories for hand refractometer

Reference	Description
HPP004	Cover prism plate, two pieces
HPP005	Blinker for hand refractometers
HPP008	Digital thermometer f/refractometer 325
HPP015	Carrying case for hand refractometer