Hand Refractometer
Instructions Operating

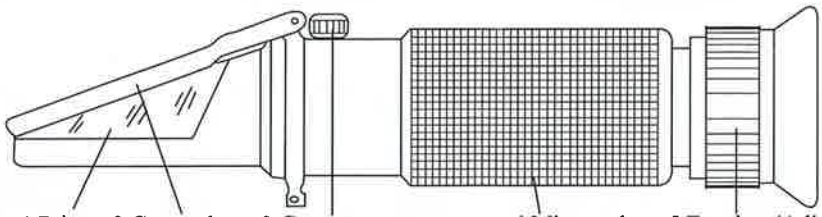
SERIES

STYLE	MODEL ORD/ATC	MEASURING RANGE	RESOLUTION	SIZE(mm) ORD/ATC	WEIGHT (g) ORD/ATC
Brix	WZ100/110	0~5% Brix	0.1%	28/30 × 40 × 205	200/240
	WZ101/111	0~10% Brix	0.1%	28/30 × 40 × 205	200/275
	WZ102/112	0~20% Brix	0.1%	28/30 × 40 × 205	200/240
	WZ103/113	0~32% Brix	0.2%	28/30 × 40 × 170	185/215
	WZ104/114	28~62% Brix	0.2%	28/30 × 40 × 160	180/205
	WZ105/115	45~82% Brix	0.5%	28/30 × 40 × 140	180/195
	WZ106/116	58~90% Brix	1%	29/30 × 40 × 160	200/220
		38~43 °Be'	0.5% °Be'		
		10~33% water	1%		
	WZ107/117	0~60% Brix	0.5%	28/30 × 40 × 150	180/200
	WZ108/118	0~80% Brix	0.5%	29/30 × 40 × 155	195/215
	WZ109	58~92% Brix	0.5%	28 × 40 × 140	170
	WZ109B	1.435~1.520 ND	0.001ND	28 × 40 × 140	170
	WZ1010/1110	0~50% Brix	0.5%	28/30 × 40 × 150	180/200

ORDinary: If the condition temperature isn't 20℃, it need to adjust the zero for the measuring accuracy.

ATC(Automatic Temperature Compensation): the ATC device is a built-in type. lts compensation temperature range: 10℃ ~30℃

NAME OF COMPONENTS



APPLICATION

These models can be used for measuring the suger content of different agueous solution. WZ100/110, 101/111, 102/112 with a high resolution Brix scale was developed for low concentration, as fruit juice, soft drink, grape wine etc.

WZ103/113 was developed for most general purpose work.

WZ107/117, 108/118, 109, 1010/1110 was designed for measuring of the concentrated solution of grape sugar.

WZ104/114, 105/115 can be used for measuring the sugar content of concentruted fruit juice, condensed milk. lignid sugar and jam etc.

WZ10/116 was developed for measuring of the three common indexes of honey: sugar content. Baume and water content.

METHOD OF OPERATION:

1. Aim the front end the refractometer to the direction of brignt light, and adjust the adjusting ring of diopter 5 until the reticle can be seen clearly.
2. Adjustment of null

Open the cover plate 2, put one or two drops of distilled water on the prism. Close the cover plate and press it lightly, then adjust the correct screw 3 to make the light/dark boundary coincide with the null line.

(Brix/ATC Model should adjust at 20℃ environmental temperature)

*WZ104, Model make adjustment by using a saturated sodium chloride solution. The refractive index of the saturated sodium chloride solution is: 15℃ , adjust at 29.9%. 20℃ , adjust at 29.6%. 25 ℃ , adjust at 29.2%.

**WZ105, WZ106, WZ109 Model adjustment of the reference

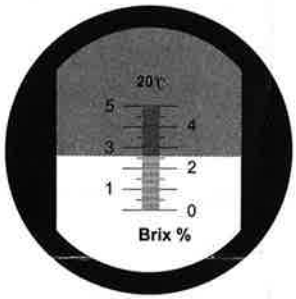
Drop one drop of dioptric oil on the bright surface of the reference block. Open the cover plate(2), stick the reference block on the

surface of the prism and press it lightly with your hand, so that it can not slide down. Rotate and adjust the correcting screw (3) to make the light/dark boundary coincide with reference line. (Brix 78.8%)

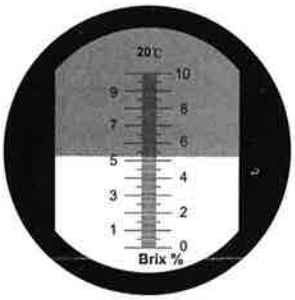
3. Open the cover plate (2) clean the surface of prism by soft cotton flannel, drop 1~2 drops of solution to be measured. Close the cover plate, press it lightly, then read the corresponding scale of light and dark boundary, the reading is the brix of measured solution.
4. After measurement, clean away the adherent on the surface of prism and cover plate by moist gauze. After drying, it should be stored perfectly.

ATTENTIONS AND MAINTENANCE

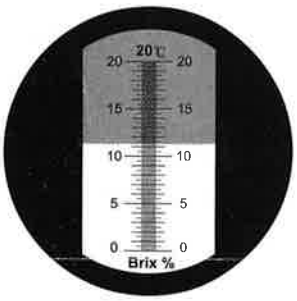
1. Adjusting the null liquid and specimen should be under the same temperature, if the temperature varied greatly, the null point should be adjusted once per 30 minutes.
2. The prism must be cleaned completely, because any residual impurity on it could cause error during measuring.
3. After usage, don't use water to wash the instrument, so as to avoid water entering into the pipe of the instrument.
4. As it is a kind of precision optical instrument, you should hand it gently and take good care of it. don't touch and scratch the optical surfaces. It should be kept in the environment of dry, clean and non-corrosiveness air, so as to prevent the surface of it turning mouldy and foggy. Please avoid strong shock during transportation.
5. If the consumers use the instrument in accordance with the mentioned method of usage, it guarantee that instrument can't break down, the optical performance can't change.



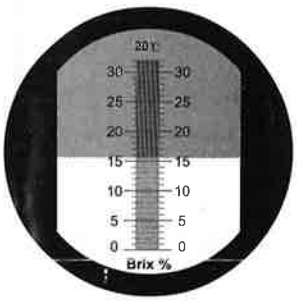
WZ100/110



WZ101/111



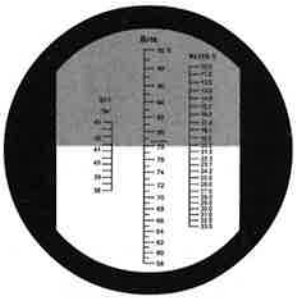
WZ102/112

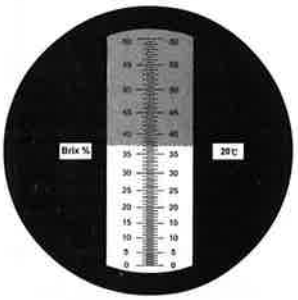


WZ103/113

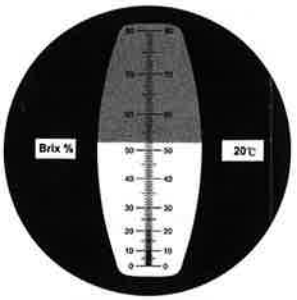
WZ104/114

WZ105/115


WZ106/116



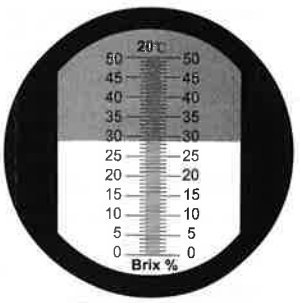
WZ107/117



WZ108/118

WZ109


WZ109B



WZ1010/1110

ACCESSORY:

1. Eyeshade	1	5. Salinity water	1(104)
2. Burette	2	6. Dioptric oil	1(105,106,109)
3. Screw driver	1	7. Reference block	1(105,106,109)
4. Cleaning cloth	1		