

# Refractometers

## Analog and digital

### HIGHLIGHTS

- Portable, accurate and fast
- Wide range of applications
- Easy to use

Refractometers are used for the identification of substances and concentration measurement of fluids. Because the refractive index (R.I.) of a solution is proportional to the concentration it is easy to identify the substance or to measure the purity and concentrations of solutions

The Euromex refractometers are calibrated at 20° Celsius. Most refractometers are equipped with Automatic Temperature Compensation (ATC). Euromex offers analog and digital hand refractometers, tabletop abbe refractometers and gemological refractometers



### CONCENTRATIONS OF SUGAR IN MARMALADES, FRUITS, HONEY, SYRUPS, WINE AND MONITORING OF OIL EMULSIONS

MODELS	Range	Accuracy	Remarks	ATC	Handheld model	Table model	Analog	Digital
RF.6190	0 - 90 Brix	0.2	3 scales: 0-42 / 42-71 / 71-90 Brix		•		•	
RF.6510	0 - 10 Brix	0.1		•	•		•	
RF.6520	0 - 20 Brix	0.1		•	•		•	
RF.6532	0 - 32 Brix	0.2		•	•		•	
RF.6562	28 - 62 Brix	0.2		•	•		•	
RF.6580	0 - 80 Brix	0.5		•	•		•	
RF.6582	45 - 82 Brix	0.5		•	•		•	
RF.6592	58 - 92 Brix	0.2		•	•		•	
RF.6635	0 - 150 °Oe 0 - 35 Brix 0 - 27 °KMW 0 - 22 % 0 - 37 CNM	1 0.2 0.2 0.2 0.5	Oechsle units Sugar concentration Babo units % volume	•	•		•	
RD.6735	0 - 150 °Oe 0 - 35 Brix 0 - 25 °KMW 0 - 22 %	1 0.1 0.1 0.1		•	•			•
RD.6645	0 - 45 Brix 1.33 - 1.41 R.I.	0.1 0.0003		•	•			•
RD.6666	0 - 80 Brix 1.33 - 1.51 R.I.	0.5 0.0005		•	•			•
RD.6667	58 - 92 Brix 1.43 - 1.52 R.I.	0.2 0.0003		•	•			•

## HONEY

MODELS	Range	Accuracy	Remarks	ATC	Handheld model	Table model	Analog	Digital
RF.6642	13 - 25 %	0.1	% moisture in honey	•	•		•	
RF.6644	58 - 92 Brix	0.5		•	•		•	
	38 - 43 °Be	0.5						
	12 - 27 %	1	% moisture in honey					

## CONCENTRATION OF SUGAR/ALCOHOL %

MODEL	Range	Accuracy	Remarks	ATC	Handheld model	Table model	Analog	Digital
RF.6627	0 - 25 %	0.2	% volume	•	•		•	
	0 - 40 Brix	0.2						
	0 - 20 Baume	0.2						

## SALINITY AND CONCENTRATION OF SUGAR

MODELS	Range	Accuracy	Remarks	ATC	Handheld model	Table model	Analog	Digital
RF.6610	0 - 100 ‰	1		•	•		•	
	0 - 10 Brix	0.1						
	1.00 - 1.07 R.I.	0.005						
RF.6628	0 - 28 %	0.2		•	•		•	
RD.6728	0 - 28 %	0.1	% NaCl	•	•			•
	0 - 45 Brix	0.1						
	1.33 - 1.41 R.I.	0.0003	Only for sugar/salt					

## BATTERY ACID/COOLANT

MODELS	Range	Accuracy	Remarks	ATC	Handheld model	Table model	Analog	Digital
RF.6650	1.10 - 1.40 sg	0.01	Battery fluids	•	•		•	
	-50 / 0 °C	5	Ethylene glycol G13					
	-50 / 0 °C	5	Propylene glycol G11/12					
	-40 / 0 °C	10	windshield washer fluid					
RD.6730	1.0 - 1.50 sg	0.01	Battery fluids	•	•			•
	-50 / 0 °C	0.5	Ethylene glycol G13					
	-50 / 0 °C	0.5	Propylene glycol G11/12					
	-40 / 0 °C	0.5	windshield washer fluid					

## CLINICAL APPLICATIONS PROTEINS

MODELS	Range	Accuracy	Remarks	ATC	Handheld model	Table model	Analog	Digital
RF.6612	0 - 12 g/dl	0.2	Proteins in serum	•	•		•	
	1.00 - 1.05 sg	0.002	Urine specific gravity					
	1.333 - 1.360 R.I.	0.0003						
RF.6614	2 - 14 g/dl	0.1	Proteins in serum	•	•		•	
	1.00 - 1.06 sg	0.001	Urine specific gravity (dog)					
	1.00 - 1.06 sg	0.001	Urine specific gravity (cat)					
RD.6712	0 - 12 g/dl	0.1	Proteins in serum	•	•			•
	1.00 - 1.05 sg	0.001	Urine specific gravity					
	1.33 - 1.39 R.I.	0.0001						
RD.6714	0 - 14 g/d	0.1	Proteins in serum (dog)	•	•			•
	0 - 14g/d	0.1	Proteins in serum (cat)					
	1.00 - 1.06 sg	0.001	Urine specific gravity (dog)					
	1.00 - 1.06 sg	0.001	Urine specific gravity (cat)					
	1.33 - 1.39 R.I.	0.0001						

## IDENTIFICATION OF PRECIOUS STONES (SEE NEXT PAGE)

MODEL	Range	Accuracy	Remarks	ATC	Handheld model	Table model	Analog	Digital
RF.6381	1.30 - 1.81 R.I.	0.01	With filter 590 nm	•		•	•	

## SUBSTANCE IDENTIFICATION (SEE NEXT PAGE)

MODEL	Range	Accuracy	Remarks	ATC	Handheld model	Table model	Analog	Digital
98.490	0-95 Brix	0.01	without light source	•		•	•	
	1.300-1.700 R.I.	0.0002				•	•	



RF.6381 ●

## Gemological refractometer

### GEMSTONES

- Gemological refractometers are key instruments for research in gemological laboratories
- This table refractometer has been designed specifically for determination of precious stones based on refraction index measurement. Contains a 590 nm filter for generation of monochromatic light

### APPLICATION

Identification of precious stones

### ACCESSORIES AND SPARE PARTS

- RF.5295** Test slide 78.8 Brix for calibration of RF.5190
- RF.5385** 5 ml immersion nD 1.65 liquid for RF.5381 and RF.6381
- LE.5209** 20 W 12 V cold light source with single fiber light conductor
- SL.5208** Spare 20 W 12 V halogen bulb

## Abbe laboratory refractometer

### SUBSTANCE IDENTIFICATION

- The Abbe laboratory refractometer is a bench-top instrument for high-precision measurements of an index of refraction
- Abbe refractometers are more accurate than hand refractometers
- Capable of measuring all kinds of concentrations and identifying several types of substances
- The instrument is equipped with a built-in thermometer and water connection to control fluid temperatures
- Equipped with a Brix and a refraction index scale and supplied with a test plate
- The use of a cold light source like the LE.5209 is recommended for this type of refractometer
- Delivered with carrying case, digital thermometer 0-50° Celsius, calibration plate and adjusting tool

### APPLICATION

Suitable for determination of the refractive index of solid samples, such as glass, plastics, and polymer films

### ACCESSORIES AND SPARE PARTS

- 98.492** Digital thermometer 0-50° C (for Abbe refractometer 98.490)
- 98.496** Calibration slide nD 1.5163 (for Abbe refractometer 98.490)
- RF.5385** 5 ml immersion nD 1.65 liquid
- LE.5209** Euromex cold light illuminator 20 W with light conductor

### PACKAGE CONTENT

Delivered with carrying case, digital thermometer 0- 50° Celsius, calibration plate, adjusting tool and with 0.5 ml refraction liquid



98.490 ●