



**TECHNICAL SPECIFICATIONS AND STANDARDS**

**Ambient Characteristics**

Temperature Limits:

*Ambient:* + 5°C...+45°C (for sugar solutions)  
*Storage:* -20°C...+70°C

Humidity Limits:

*Ambient:* + 5%...+95% (R.H. non-condensing)  
*Storage:* + 5%...+95% (R.H. non-condensing)

Altitude Limits: <2000 m a.s.l.

Pollution Category: "2" to IEC664

Protection category: IP65 to EN60529

**Conformity to Standards and Directives**

LVD: EU 73/23, 93/68 and amendments;  
EN 61010-1 (1994)

EMC: EU 89/336, 93/68 and amendments;  
EN 50081-2 (1994-Generic Emission)  
EN 50082-2 (1995-Generic Immunity)  
EN 61000-4-2 (1996-Electrost. Discharges)  
EN 61000-4-4 (1996-Bursts)  
ENV 50140 (1994-Irradiated Immunity)  
ENV 50141 (1994-Cond. Disturbances)

\*CE mark shows conformity to listed EU Directives and Standards.

\*Conforms to EU regulation 2676/90 for determination of "Alcohol Contents by Volume".

Product temperature: +5°C...+45°C with automatic compensation of temperature measured by means of Pt1000 ceramic temperature sensor, Class "B" to IEC751.

Quantity of analyzed sample:

~3cc for concentration analyses.  
~20cc for conductivity measurements.

Cycle duration:

5"...30" depending on type of analysis.

**GENERAL SPECIFICATIONS**

**Supplies**

*Electrical:* AC 90...240V ± 10% 50...60Hz 15VA.  
Connection via cable with SP7748 (CEE-7) 10A/250V plug for EU versions or P620 15A/125V plug for US versions.

**Interfaces**

*Serial:* RS232 for connection to a PC via 9-pin male D-connector.  
*Parallel:* CENTRONICS for Printer connection – via 25-pin female D-connector.

**CONSTRUCTION FEATURES**

**MEASUREMENT SYSTEM**

**Execution:** One-piece enclosure in 304 AISI stainless steel.  
*Measur. section:* -Synthetic sapphire measurement prism.  
-Electronically compensated LED light source.  
-CCD sensor element.  
-Internal "Pt1000" temperature sensor.  
-316 AISI stainless steel measurement bowl.

The unit's optical section is dehumidified by means of a Molecular Sieve desiccant cartridge.

*Electronic Section:* -Microprocessor CPU main unit.  
-Measurement readings and program menus presented on 2x16 character backlit alphanumeric LCD.  
-Moulded keypad in scratchproof polyester with dome keys.  
-Automatic zero calibration.

**Product contact materials:**

-Measurement bowl in 316 AISI stainless steel.  
-Synthetic sapphire measurement prism.  
-Silicone coated fibreglass fabric.

**PROCESSING SYSTEM**

**Execution:** One-piece 304 AISI stainless steel enclosure.  
*Electronic section:* -Industrial monoboard microprocessor CPU.  
-Graphic displays on 640x480 9.7" monochrome LCD monitor.  
-Alphanumeric keypad in scratchproof polyester with dome keys.  
-Protection Hardware key with connector for parallel port.  
-3.5" 1.44MB diskette drive and high capacity hard disk.  
-External power supplier housed in black ABS bookstand enclosure.  
-Facility for "Miscellaneous Analyses" or administration of "Lots" recording all the operations and analyses performed periodically for each fermentation tank.

**Dimensions and weight:**

460 (w) x 343 (h) x 270 (d), ~13kg

**OPERATIVE SPECIFICATIONS**

Application: Measurement of natural, stopped, concentrated or fermenting musts and wines and fermentation process control in Winery laboratories.

Measurement type: Refractometric and conductivity measurement display in selected scale of temperature compensated measurement, monitoring of fermentation trend, administration of enrichment and additions with recording and graphic processing of analytical data.

Measurement limits: 1.3330...1.5177nD.

Automatic conversion of reading in the following measurement scales, with limits corresponding to:

0...90 degrees BRIX            0...35 degrees BABO  
0...40 degrees BAUME'        0...180 degrees OECHSLE  
0...80g/l x Total Extract  
0...30%v/v x Potential alcohol  
0...5mS/cm x Conductivity

Accuracy: ±0.0004nD (±0.03Brix) or equivalent for corresponding scales.  
>1g/l for wines and musts.  
>0.1v/v for distillates.  
>2g/l for fermentation musts.  
>0.05mS/cm.

Measurement scales: N°5 measurement scales selectable from keypad:  
-nD  
-BRIX; the "BRIX" scale is referred to the nD/Bx ICUMSA conversion tables.  
-N°1 "USER DISTILLATES" scale utilized for alcohol contents of distillates.  
-N°2 "USER" scales configured as "Babo" and "Volumetric Mass".