

LABORATORY ANALYZER FOR THE DETERMINATION OF SUGAR, ALCOHOL AND EXTRACTS ON MUST AND WINE

LM 03

The multiparametric analyser LM-03 is designed to directly control: must, wine/must, wine. The unit allows two operational methods: to analyse some oenological parameters and to follow through an interactive method the fermentation process.

What it can measure

- on Must and concentrated must:
it measures the sugar degree, expressed in different selectable scales.
- on Wine/must (fermentation) and wine:
sugar content, alcohol and extracts (total-TE and net-NRE).
- on Distillate:
measurement on % v/v alcohol

Technical solution

The LM-03 uses a refractometric analyser combined with a conductivemetric analyser and it elaborates data through a customized software. The unit, compared to other methods on the market, offers the following advantages:

- very quick analysis
- analysis on not treated sample
- free cost of analysis (no use of reagents)
- possibility to manage fermentation processes, following the trend of the main parameters, creating graphics and stocking data.

Measurement cycle and data management

As mentioned, the LM-03 can be used into two different ways:

- As analyser of the above mentioned parameters and, in this case, its use is really simple: it is only necessary to put a not treated sample into the basin then starting the cycle of analysis.
- As an interactive system for controlling fermentation processes, in this case, when the sample is into the basin, the software very simply indicates the analysis cycle execution.

After the analysis the system displays the results, processes and automatically updates the data base and it can send data to a collection center.

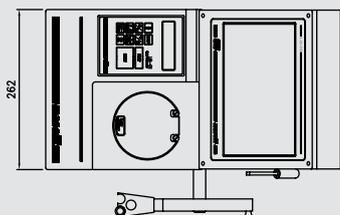
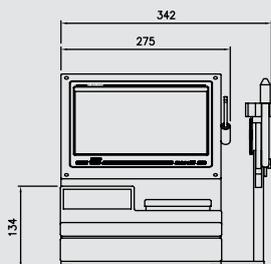
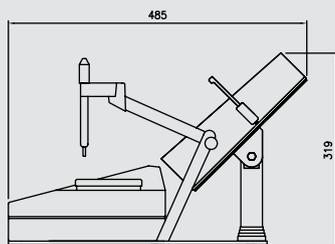
Who use it and why

Wineries, oenologic Consultants, oenologic Laboratories to define with precise analysis some specific oenological parameters and to follow with an interactive method the fermentation processes.



LM 03

Dimensions



GENERAL CHARACTERISTICS

TECHNICAL FEATURES

Application:

Measurement of natural, stopped, concentrated musts.

Type of measurement:

Refractometric and conductivity measurement, with temperature compensation.

Measurement limits:

1.3330...1.5177 nD.

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

- 0...90 degree Brix
- 0...35 degree Babo
- 0...40 degree Baumè
- 0...80 g/l for Total Extract
- 0...30% v/v for Potential Alcohol
- 0...20% v/v for Distilled Alcohol
- 0...5 mS/cm for Conductivity

Accuracy:

± 0.0004 nD (± 0.03 Brix) or equivalent for corresponding scales.

- >1 g/l on wines and musts.
- >0.1 v/v on distilled.
- >2 g/l on fermenting must.
- >0.05 mS/cm

Measurement scale:

N°6 measurement scales selectable from touch screen:

- Brix, Babo, Baumè; the "Brix" scale is referred to nD/Bx ICUMSA conversion tables.
- N°1 "USER DISTILLATI" scale utilized for alcohol content on distillates.
- N°2 "USER" scales configured as "Potential Alcohol" and "Volumetric Mass".

Product temperature:

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

Quantity of analysed sample:

- ~3 cc for concentration analysis.
- ~20 cc for measuring conductivity.

Cycle duration:

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

Supplies:

Electrical:

DC +5V 4A, +12V 2A, -12V 0.5A,

via cable:

AC 100...240V $\pm 10\%$ 47...63Hz 50VA

Interface:

Serial: RS232

Parallel: CENTRONICS for Printer connection.

Usb: A type for external connection

Ethernet: RJ-45 for external connection

PS/2 MiniDIN 6P.F. for external keyboard and mouse connection

CONSTRUCTION FEATURES

MEASUREMENT SYSTEM

Measurement section:

- "Synthetic sapphire" measurement prism.
- Electronically compensated "LED" light sources.
- "CCD" sensor element.
- Internal "Pt1000" temperature sensor.
- AISI 316 stainless steel measurement bowl.

Electronic section:

- Microprocessor "CPU" main unit.
- Measurement reading through display LCD 2x16 character backlit.
- Moulded keypad in scratchproof polyester with dome keys.
- Automatic Zero calibration.

Product contact materials:

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

PROCESSING SYSTEM

Electronical section:

- Industrial monoboard microprocessor "CPU".
- Graphic displays on 800x600 10.4" LCD touchscreen.
- Flash Memory of 512 MB.

Dimensions and weight:

342 (b) x 319 (h) x 485 (p), 11.5 kg



MASELLI MISURE s.p.a.

43125 Parma - Italy
Via Baganza 4/3
Tel. +39.0521.257411
Fax +39.0521.250484
info@masellimisure.com
www.masellimisure.com