

TECHNICAL-NORMATIVE SPECIFICATIONS

Environmental features

Temperature Limits:

Environment: -5...+40 °C (41...104 °F)
Storage: -20...+70 °C (-4...+158 °F)

Humidity Limits:

Environment: 5%...95% (R.H. without condensate).
Storage: 5%...95% (R.H. without condensate).

Altitude: <2000 above sea level.

Protection Degree: IP50 in accordance with EN60529

Conformity to Directives

EMC: 2004/108/EC and subsequent modifications;

WEEE: 2002/96/EC and subsequent modifications;

* CE marking conforming to UE Directives .

OPERATING SPECIFICATIONS

Application: Measurement of polyphenols in liquidized red grapes.

Type of measurement: The MT00 analysis unit operates in the UV – VIS – NIR range measuring diffused reflectance.

Preparation of the analysis sample:

- Minimum quantity of fresh product: 200 grape berries.
- Liquidizing time: 5 minutes.
- Minimum waiting time (after liquidizing): 10 minutes.

Characteristics of the product "En measure":

Measurement limits: -Minimum turbidity value 200 FTU.
-Minimum sample volume 100 ml.
-Measurement time 10 seconds.
-Wavelength range 280...900 nm.

Product temperature: 10...40 °C.

Dew point on the speculum:

Product at 10 °C with an ambient temperature of 15 °C and relative humidity at 75%.

Parameters measured:

Total Anthocyanins and Anthocyanin Extractability:

Measurement limits: 0...10000 mg/kg
Accuracy: ±10% of the given reading
Repeatability: ±20 mg/kg

Total Polyphenol Index:

Measurement limits: 0...200
Accuracy: ±20% of the given reading
Repeatability: ±1% of the given reading

(*) Tonality:

Measurement limits: 0...3.50
Accuracy: ±0.03
Repeatability: ±0.005

MP% Index:

Measurement limits: 0...100%
Accuracy: ±10%
Repeatability: ±1%

(*) Phenolic Quality:

Measurement limits: 90...300 PQ units
Accuracy: ±1 PQ units
Repeatability: ±0.50 PQ units

(*) Tonality and Phenolic Quality (PQ) index measurements are specifically for the delivery phase. Please remember that the

values of these measurements depend on the grape sample preparation system and in particular on pigment extraction efficiency. Hence the values given by must obtained from a worm screw truck sampling probe and those given by must from a liquidizer cannot be compared.

GENERAL SPECIFICATIONS

Power supply

Electric: DC +5V 4A, +12V 2A by means Power Supplier:
AC 100...240V ±10% 47...63Hz 50VA
Connection via cable with SP7748 (EEC-7)
10A/250V plug for EC versions or P620 15A/125V plug for US versions.

Interfaces

Serial: RS232 for connection to a PC via 9P.M. D-connector.
Parallel: CENTRONICS for Printer connection – via 25P.F. D-connector.
Usb: A type for external connection.
Ethernet: RJ-45 for external connection.
PS/2 MiniDIN 6P.F. for external connection keyboard and mouse.

CONSTRUCTION FEATURES

Construction: One-piece enclosure in 304 AISI stainless steel.

Measuring section: -Measuring bowl made of "PVC".
-Light sources with electronically compensated LEDs.
-Illumination area diameter 10 mm.
-Measurement area diameter 10 mm.
-Analysis test tubes made of "PVC" and "Fused Silica"/ Optical Glass.
-Window with diameter 35 mm.
-Illumination/detection geometry 45°/0°.

Electronic Section: -External temperature sensor "Pt100", for automatic adjustment of thermostat.
-Internal temperature sensor "Pt1000", for constant luminosity compensation of LEDs.
-Light detector: photodiode with large sensitive surface.
-"CPU" central unit with microprocessor.

Materials in contact with the product:

- "PVC" and "Fused Silica"/Optical Glass.

PROCESSING SYSTEM

Construction: One-piece enclosure in 304 AISI stainless steel.

Electronic Section: -Industrial monoboard microprocessor CPU.
-Graphic displays on 800x600 10.4" touch screen and touch pen.
-2 GB Flash Memory.
-External power supplier housed in black ABS bookstand enclosure.
-A choice of 4 languages (Italian, English, French and Spanish) for menus and messages display.

Dimensions and total weight of the Analysis Unit:

503 (w) x 319 (h) x 275 (d), 11.7 kg

PRODUCT PREPARATION SYSTEM

Execution: High-efficiency liquidizer controlled by specific programmer.

- 4-blade liquidizer with 1000 ml capacity.
- PLC programmer for the management of liquidizing and waiting times.
- Cycles displayed via LCD "Touch Screen".
- Possibility to overlap cycle times to minimize waiting times.

Dimensions and total weight of the Liquidizer:

Ø 250 x 400 (h), 3.5 kg.

