

TECHNICAL SPECIFICATIONS AND STANDARDS

Ambient Characteristics

Temperature Limits:

Ambient: 5...45 °C
Storage: -20...+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 Directives

EMC: 2004/108/EC and subsequent modifications

WEEE: 2002/96/EC and subsequent modifications

*CE mark shows conformity to listed EU Directives.

OPERATIVE SPECIFICATIONS

Application: Measurement of liquid products in laboratories in the Food, Chemicals, Textile, Petrochemical industries, wineries, etc.

Measurement type: Refractometric measurement in laboratory of the Refraction Index and display in the selected scale of the relative concentration with automatic temperature compensation.

Measurement Limits: 1.3300...1.5177 nD.
0...90 Brix.

----- Industry Version -----

Measurement Scales: N°10 measurement scales selectable from the keypad:

- nD
- BRIX; the "BRIX" scale refers to the nD/Bx ICUMSA (1974) conversion tables.
- HFCS42 and HFCS55 with adjustable Zero value.
- N°3 "BRIX" scales with personalizable Zero and Span values.
- N°3 "USER" scales totally configurable from the keypad.

Accuracy: ±0.00004 nD (±0.03 Brix).

----- Oenology Version -----

Measurement Scales: N°16 measurement scales selectable from the keypad:

- nD
- BRIX; the "BRIX" scale refers to the nD/Bx ICUMSA (1974) conversion tables.
- N°3 "BRIX" scales with personalizable Zero and Span values.
- N°3 "USER" scales totally configurable from the keypad.

- Sugar on CM and on RCM: 0...90 Brix
- Sugars on fresh musts: 0...35 Babo
- Alcohol Ethanol on liqueurs: 0...55% v/v
- Alcohol on distillate musts-wines: 0...20% v/v
- *Total Extract for liqueurs: 0...500 g/l
- *Total Extract for musts and wines: 0...300 g/l
- Baumè: 0...45
- Volumetric Mass: 1.0390...1.3900 kg/l

* = viewable through activation of the Extracts menu

Accuracy:

- ±0.00004 nD (±0.03 Brix).
- On CM e RCM: ±0.03 Brix
- On fresh musts: ±0.1 Babo
- On distillate liqueurs: <0.2% v/v
- On distillate musts-wines: <0.1% v/v
- On liqueurs, Total Extract: <2 g/l
- On wine and fermentation musts, Total Extract: <1 g/l
- Baumè: 0.02
- Volumetric Mass: 0.0001 kg/l

Product temperature: 5...45 °C with automatic compensation of measured temperature by means of ceramic "Pt1000" sensor, Class "B" according to IEC751; compensation for "User" scale ranges refers to the values set on the keypad.

Quantity of analyzed sample:

~3 cc for analysis

GENERAL SPECIFICATIONS

Supplies

LR-01: DC 5V 5W - connection to external power supplier via 5-pin male circular connector.

Power supp.: AC 115/230V ±10% 50...60Hz 7VA
Connection via cable with SP7748 (EEC-7) 10A/250V plug for EC versions or with P620 15A/125V plug for US versions.

Water: Water for thermostat control, max. press. 1 bar
Inlet/outlet connection by means of hose fitting inserts for reinforced hoses with ID of 10 mm

Interfaces

Serial: RS232 for connection to a PC; connection via male 9-pin D-connector.

Parallel: CENTRONICS for printer; connection via female 25-pin D-connector.

Inputs: N°1 input for measurement "external START".

Outputs: N°1 multi-function output optically decoupled from the power supply (VDE0160) configurable from the keyboard with contact rating of 24V/2A.

The input and output connection is made via a female 15-pin D-connector which also carries the connection for the optional external Pt1000 temperature sensor.

CONSTRUCTION FEATURES

Execution: One-piece 304 AISI stainless steel enclosure.

Measur. Section:

- Synthetic sapphire measurement prism.
- Electronically compensated LED light source.
- CCD sensor element.
- Internal Pt1000 temperature sensor (option for connection to Pt1000 external temperature sensor).
- Analysis bowl in 316 AISI stainless steel, with internal water circulation cooling circuit.

The optical section of the unit is dehumidified by means of a molecular sieve desiccant cartridge.

Electronic section:

- Microprocessor CPU.
- Measurement readings and menus presented on backlit alphanumeric 2x16 character LCD display.
- Moulded keypad in scratchproof polyester with dome keys.
- Voice synthesizer in four languages (English, French, Italian, Spanish).
- Automatic zero calibration.
- Temperature readings in °C or in °F.
- Overcurrent protection with 5x20 mm fuse.

Product contact materials:

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

Dimensions: 262 (w) x 125 (h) x 261 (d)

Weight: 4.8 kg

ACCESSORIES

- Sampling system comprising Flow Cell and Peristaltic Pump.
- Graphic or continuous reel printer.