

DIGITAL LABORATORY REFRACTOMETER mod. LR02
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...1.5318 nD 0...95 Brix
Accuracy:	(1.3300...1.3811 nD): ± 0.00007 nD (0...30 Brix): ± 0.05 Brix (>1.3811...1.5318 nD): ± 0.00014 nD (>30...95 Brix): ± 0.1 Brix
Measurement scales	N° 5 measurement scales selectable from the keypad: nD. BRIX; the "BRIX" scales refers to the nD/Bx ICUMSA (1974) conversion tables. HFCS42 and HFCS55 with adjustable Zero value. N°1 "USER" scales totally configurable from the keypad.
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 utility software
Quantity of analyzed sample:	~3 cc for analysis

GENERAL SPECIFICATIONS

Supplies	<p>LRO2: DC 5...7.5V 2.5W Connection to external power supplier via 4-pin male circular connector.</p> <p>Power supply: AC input 115/230V $\pm 10\%$ 50...60Hz, DC output 7.5V 420mA Connection via cable with SP7748 (EEC-7) 10A/250V plug for EC versions and with P620 15A/125V plug for US versions.</p> <p>Batteries: Battery case (optional) for 5x1.5V type AA alkaline batteries or 5x1.2V 2000mAh Ni-MH rechargeable batteries</p>
Interfaces	<p>Serial: RS232 for connection to a PC or Printer; connection via male 9-pin D-connector</p>

CONSTRUCTION FEATURES

Execution:	One-piece 304 AISI stainless steel enclosure
Measure section:	Synthetic sapphire measurement prism. Electronically compensated LED light source. CCD sensor element. Internal Pt1000 temperature sensor. Analysis bowl in 316 AISI stainless steel, with cover and cover position sensor.
Notes:	The optical section of the unit is dehumidified by means of a molecular sieve desiccant cartridge
Electronic section:	Microprocessor CPU. Measurement readings, program menus and error messages presented on a 128x64 point backlit graphic LCD display with "LCD Saving" function. Moulded keypad in scratchproof polyester with dome keys. 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. PTFE gasket.

Dimensions and weight:	164 (w) x 149.5 (h) x 295 (d) 6 kg
Accessories:	Graphic or continuous reel printer. Battery charger set for Ni-MH rechargeable batteries.

TECHNICAL SPECIFICATIONS AND STANDARDS

Ambient characteristics	<p>Temperature limits: Ambient: 5...45 °C Storage: -20...+50 °C</p> <p>Humidity limits: Ambient: 5%...95% (U.R. non-condensing) Storage: 5%...95% (U.R. non-condensing)</p> <p>Altitude limits: <2000 m a.s.l.</p> <p>Pollution category: "2" to IEC664</p> <p>Protection category: IP65 to EN60529</p>
Conformity to Directives:	<p>EMC: 2014/30/EU</p> <p>WEEE: 2012/19/EU</p> <p>CE mark shows conformity to listed EU Directives</p>