

ISL VIDA Density Meter

Accurate, precise, and automated density analysis of liquids

- 🌐 Proven Technology With Automation for Enhanced Performance
- 🌐 Ease of Use for Increased Laboratory Efficiency
- 🌐 Compliant with ASTM D4052, ASTM D5002, ASTM D5931, ISO 12185, ISO 15212-1, DIN 51757 and JIS K2249-1

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PROVEN AUTOMATED TECHNOLOGY WITH THE HIGHEST LEVEL OF QUALITY COMPLIANCE

The VIDA density meter provides accurate and repeatable density analysis for a wide range of liquids according to ASTM D4052. It combines the proven oscillating U-tube technology with unique automated features such as bubble detection and sample injection. This automation improves repeatability, ease of use, and laboratory efficiency to achieve the highest level of quality compliance.

KEY ADVANTAGES

PROVEN TECHNOLOGY FOR ENHANCED PERFORMANCE



Advanced technology based on robust oscillating U-tube

- Can withstand aggressive samples and solvents due to unique stainless steel cell
- Better repeatability due to push-piston automatic vertical sample injection that mimics manual direct injection
- No operator visual check required due to automated bubble detection
- Maintain the apparatus inlets/outlets warm up to 70°C
- Internal waste circuit also kept warm
- Prevent freezing of the sample during whole test cycle run

EASE OF USE FOR INCREASED LABORATORY EFFICIENCY



True “push button” solution requiring minimal training or analytical knowledge

- Perform accurate density analysis with only 3 steps: sample loading, measurement and cleaning
- Automatic cleaning reduces cleaning time and consumption of solvents, even for difficult samples
- Intuitive smart software that displays test progress in real time
- Quick and advanced test setup for quality control and customized tests
- Integrated tables for automatic conversions of density output for API crude oil, refined products, lubricants, alcohols, acids, alkalis and sugars
- Customizable tables

HIGH LEVEL OF COMPLIANCE



Immediate access to critical information

- Programmable duplicate measurement in one test run for more accurate analysis
- Automatic pass/fail validation
- Quality control chart shows when calibration adjustment is required
- Troubleshoot system with event log and diagnostic features
- IRIS/LIMS capability
- Compliant with ASTM D4052, ASTM D5002, ASTM D5931, DIN 51757, ISO 12185, ISO 15212-1 and JIS K2249-1.

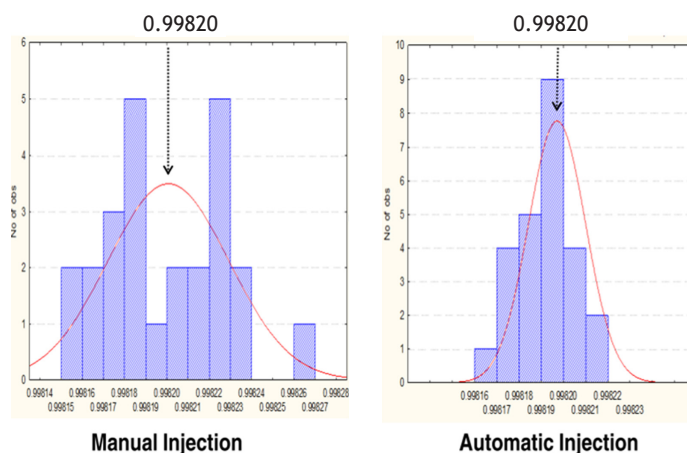
“We chose the VIDA because we got more for our money. Our technicians are extremely pleased with its ease of use and fast analysis. It is extremely simple to start a sample since it only takes 60 seconds of hands on time for sample prep to start the test. All we do is put in the syringe and hit go.”

Ralph Guidry
Chemist, Valero Refinery Lab

IMPROVED REPEATABILITY

With the higher accuracy and repeatability of the VIDA density results, operators are able to run their processes tighter to the specification limits.

The graphs on the right compare results of a manual injection density meter and the automated VIDA analyzing ~25 consecutive tests of the same sample.



FULLY AUTOMATED RELIABILITY

VIDA's high level of automation —powered by embedded smart software— allows non-assisted operation during the whole test cycle, providing a significant reduction of operators' workload, together with repeatable and consistent measurements one can rely on.

AUTOMATIC SAMPLE INTRODUCTION

- Push-piston with automatic force sensor and viscosity correction simulates the manual direct injection with better repeatability
- Adjust injection speed to prevent errors due to air bubbles

INTUITIVE TOUCH SCREEN

- Real-time display of test progress
- Easy configuration of test methods
- Straightforward navigation menu

UNIQUE ADVANCED FEATURES

- Automatic bubble detection
- Metal measuring cell
- Vertical injection

OPTIONAL AUTO SAMPLER

- 40 positions
- Uses the same single-use syringes as individual sample injection
- Optional heated carousel up to 70°C

SELF-CONTAINED SYSTEM

- No risk of sample cross-contamination
- Minimal operator exposure to solvents
- Optimal VOC emissions control



APPLICATIONS

REFINING & PETROCHEMICAL INDUSTRIES

Light and Mid Distillates - VIDA 40

- Gasoline
- Diesel
- Jet fuel

Heavy Oils - VIDA 40H

- Residual wax fractions
- Paraffin crude oil
- Heavy fuel oil
- Bitumen samples



SPECIFICATIONS

VIDA™ Density Meters	VIDA 40		VIDA 40H	VIDA 40SC	VIDA 40SCH
Analytical Principle	Oscillating U-Tube				
Measurement Range	0 to 3 g/cm³				
Temperature Range	0 °C to +100 °C (32 to 212 °F)				
Pressure Range	0 to 10 bar (0 to 145 psig)				
Viscosity at loading temperature	<15000 mm²/sec				
Temperature Accuracy	0.03 °C	0.01 °C		0.03 °C	0.01 °C
Density Accuracy	0.0001 g/cm³	0.00005 g/cm³		0.0001 g/cm³	0.00005 g/cm³
Density Repeatability s.d.	0.00002 g/cm³	0.00001 g/cm³		0.00002 g/cm³	0.00001 g/cm³
Operation					
User Interface	7-inch Color TFT Touch Screen				
Sample Loading	Automatic by push piston				
Sample Changer	No			Yes	
Sample Keep Warm	No	Yes		No	Yes
Bubbles Detection	Automatic (by pressure)				
Cleaning and Drying	Automatic (by two solvents)				
Viscosity Correction	No	Yes		No	Yes
Temperature Compensation	Yes (API conversion acc. to ASTM-D1250)				
Tables (alcohol, acid, alkali, sugar, customizable)	No	Yes, optional		No	Yes, optional
Calibration	By Air / Water		Multi-Temp	By Air / Water	
Results Management					
Documentation	Results instant report in g/ml ; kg/m³; Rel. Density; °API. Detailed report on local screen; Print-out reports				
Statistics	Auto calculation of max/min. values; mean and sdt. dev.				
Built-in Local Memory	2GB non removable SD card. Up to 40 products with associated specification. Up to 200 test results.				
Special functions	Pass/Fail Indication; QC chart; Event Log; 2x Measurement				
PAC IRIS Software features	Run Control; Result Management; Reporting; Quality Control				
Communication Interface	2 x USB, Ethernet, 1 x RS-232				
PC Software	Windows based PC software is available for data acquisition, database management, results comparison, run control, flexible LIMS protocols and other functions				
Ambient Conditions	Operation: 10 to 35 °C (50 to 95 °F) - Humidity: 20 to 85% (not condensing)				
Power Requirement	AC 100 to 240V; 50/60Hz; 400W				
Dimensions (W x L x H)	251 x 405 x 375 mm (9.9 x 15.9 x 14.7 inches)			331 x 540 x 375mm (13 x 21 x 15 inch)	
Weight	16,8 kg (37.3 pounds)			20kg (44 pounds)	
Patents and Certifications	Fr. Patents #1055362, #1055357, #1055354 - CE Certification. CSA or other NRTL certification by request.				

ABOUT PAC

PAC develops advanced instrumentation for lab and process applications based on strong **Analytical Expertise** that ensures **Optimal Performance** for our clients. Our analyzers help our clients meet complex industry challenges by providing a low cost of ownership, safe operation, high performance with fast, accurate, and actionable results, high uptime through reliable instrumentation, and compliance with standard methods.

Our solutions are from industry-leading brands: AC Analytical Controls, Advanced Sensors, Alcor, Antek, Herzog, ISL, Cambridge Viscosity, PetroSpec and Phase Technology. We are committed to delivering superior and local customer service worldwide with 16 office locations and a network of over 50 distributors. PAC operates as a unit of Roper Technologies, Inc., a diversified technology company and a constituent of S&P 500, Fortune 1000, and Russell 1000 indices.

HEADQUARTERS

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