Fully Automated Digital Density Meter

VIDA™ Density Meter

ISL *by* PAC

HIGH RELIABILITY IN DENSITY MEASUREMENT
• Fully Automated Operation at the Push of a Button
• Built-in Automatic Bubble Detection
• Unique and Innovative Design with Multiple Configurations
• Compliant with ASTM D4052, ASTM D5002, IP365, (ISO12185), DIN 51757

VIDA™, FULLY AUTOMATED AND RELIABLE DENSITY ANALYSIS

The ISL VIDA™ density meter offers unmatched reliability in density measurement through a very user-friendly, fully automated, one button-push operation. The VIDA™ is based on the proven oscillating U-tube method and integrates innovative features that ensure reliable and accurate analysis of crude oil & petroleum products – from volatile to the highly viscous ones – in compliance with ASTM D4052, ASTM D5002, IP 365 (ISO 12185) and DIN 51757. Its high level of automation – powered by embedded smart software – allows non-assisted operation during the whole test cycle, therefore a significant reduction of operators' workload, together with repeatable and consistent measurements one can rely on.

UNIQUE ADVANCED FEATURES
- Automatic bubble detection
- Metal measuring cell
- Ultrasonic cleaning device

AUTOMATIC SAMPLE INTRODUCTION
- Push-piston simulates the manual direct injection, with better repeatability
- Adjust injection speed to prevent errors due to air bubbles

INTUITIVE TOUCH SCREEN INTERFACE
- Real-time display of test progress
- Easy configuration of test methods
- Straightforward navigation menu

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

ADVANCED TECHNOLOGY - HIGH RELIABILITY
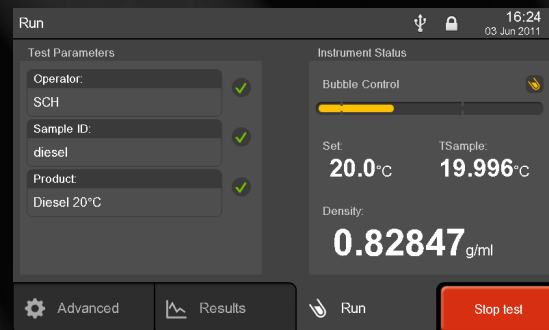
UNIQUE BUILT-IN AUTOMATIC BUBBLE DETECTION

VIDA™ features a unique built-in automatic bubble detection system:

- Operator visual check not required
- Not affected by bubble size or sample opacity
- Alert display appears if inner tube bubbles are detected; automatic new sample re-injection

Built-in, automatic bubble detection

INNOVATIVE AND ROBUST MEASURING CELL

VIDA™ combines an oscillating U-tube sensor – made of metal - with integrated Pt-100 sensors and Peltier elements.
- Fast and reliable response to temperature variations.
- Accurate temperature control across a wide range - 0°C to +100°C.
- No more trade-off between system stabilization and measurement precision

INTEGRATED ULTRASONIC CLEANING DEVICE

A patented ultrasonic device enhances solvent performance by cavitation.
- Fast and efficient cleaning and drying
- Reduction of solvents consumption by 40% or more
- Easy removal of solute deposits
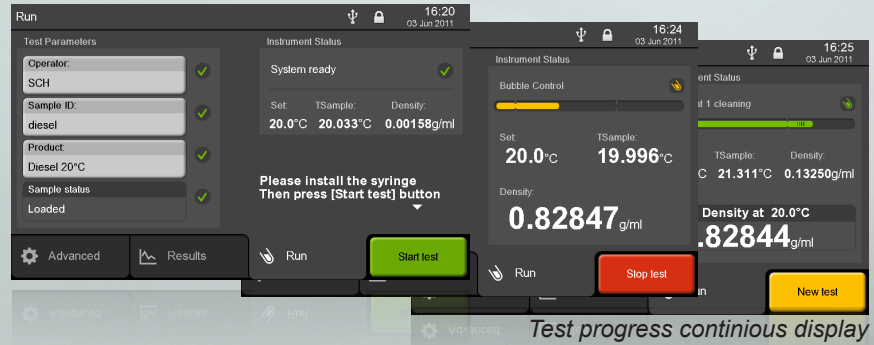- Automatic cell cleanliness check

INTUITIVE AND USER-FRIENDLY SOFTWARE

The VIDA™ color touchscreen interface allows very intuitive menu navigation, easy test progress follow-up and straightforward test configuration.

REAL TIME TEST MONITORING

With the progress bar, follow up every sequence step of the ongoing analysis
- Test sequencing into 3 main steps: sample loading; measurement and cleaning steps
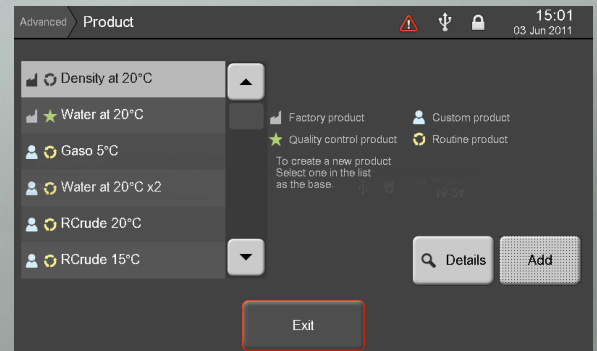- Continuous and real-time display of cell temperature and density values

Test progress continious display

CLEAR TEST CONFIGURATION

Run your samples according to your specific test conditions
- Factory preset or customized test methods
- Specification limits capability for QC products
- Cleaning and drying cycle under automatic or manual mode
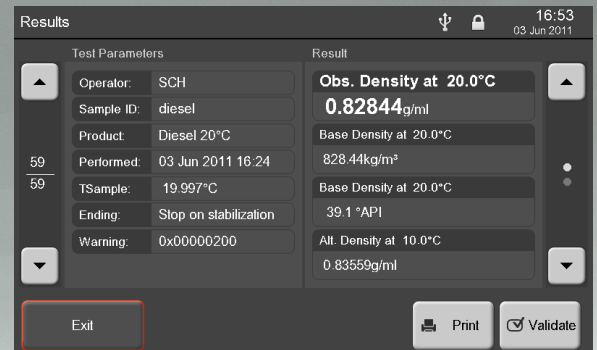- Multi-Temp" smart calibration over range of 0°C up to 100°C

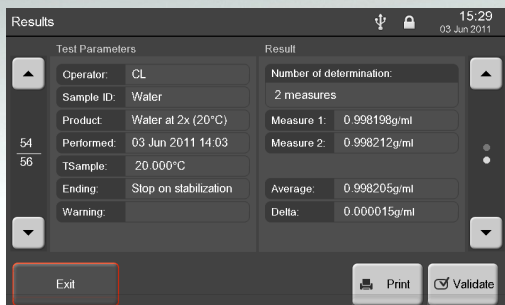*Up to 40 Customizable Products*

EASY DATA MANAGEMENT

Get actionable information and communicate it automatically
- Integrated API tables for automatic conversion of the density output
- Easy data export to external printer or PC/LIMs via USB and RS232 ports
- Stand-alone or multi-instruments network capability (under PDS Management Software)

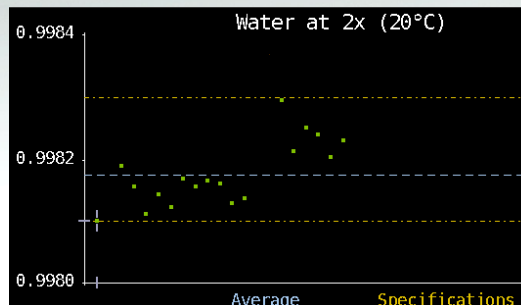
Data Management function

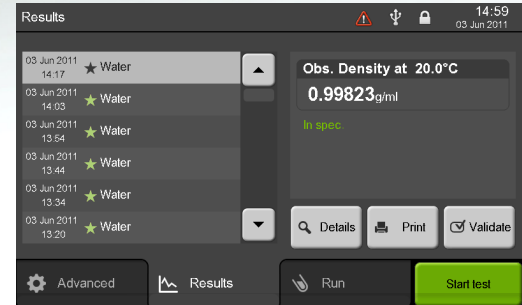# FULL QUALITY ASSURANCE, TOTAL COMPLIANCE

2X MEASUREMENT
Programmable duplicate measurement in one test run for more accurate analysis.

CONTROL CHART
Analyzer performance monitoring chart indicates when calibration adjustment is required.

PASS/FAIL INDICATOR
Fast validation of QC samples in the specification limits or target values requirements

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ISL
ISL by PAC is a global , leading provider of scientific apparatus and instruments for testing petroleum and petrochemical products in the lab and online. More than 20 automatic analyzers bearing the ISL brand are recognized for increasing test precision, boosting laboratory efficiency and reducing costs.

VIDA™ DENSITY METER - MODEL OVERVIEW

KEEP IT SIMPLE WITHOUT TRADING OFF RELIABILITY

Model VIDA 40/50 H – Designed for density measurement within viscosity range up to 30,000 cSt. Features automatic sample injection & cleaning procedures, integrated keep-warm and ultrasonic devices together with viscosity correction, multi-temp, 2x-measurement and API functions.

Model VIDA™ 40/50 – Designed for density measurement within viscosity range up to 5,000 cSt. Features automatic sample injection & cleaning procedure, API functions.

TAKE THE AUTOMATION TO THE NEXT LEVEL
Model VIDA™ 40/50 SCH – VIDA 40/50 H configuration with built-in auto-sampler of 40 positions
Model VIDA™ 40/50 SC – VIDA 40/50 configuration with built-in auto-sampler of 40 positions.

SPECIFICATIONS

VIDA™ Density Meters	VIDA 40	VIDA 40H	VIDA 50	VIDA 50H
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 psig			
Viscosity Range	upto 5,000 cSt	upto 30,000 cSt	upto 5,000 cSt	upto 30,000 cSt
Temperature Accuracy	0.03°C	0.01°C	0.01°C	0.01°C
Density Accuracy	0.0005 g/cm3	0.0001 g/cm3	0.00002 g/cm3	0.00002 g/cm3
Density Repeatability	0.0001 g/cm3	0.00005 g/cm3	0.00001 g/cm3	0.00001 g/cm3
Operation				
User Interface	7-inch Color TFT Touch Screen			
Filling mode	Automatic (by push piston)			
Bubbles Detection	Automatic (by pressure)			
Cleaning and drying	Automatic (by two solvents)			
Ultrasonic Cleaning	No	Yes	Yes	Yes
Viscosity Correction	No	Yes	No	Yes
Temperature compensation	Yes (API conversion acc. to ASTM-D1250)			
Calibration	By Air / Water	Multi-Temp (one adjustment by Air/Water at 20°C)		
Results Management				
Documentation	Results instant report in g/ml ; kg/m3; Rel. Density; °API Detailed report on local screen; Print-out reports on printer			
Statistics	Auto calculation of max/min. values; mean and sdt. dev.			
Results Memory	Up to 200 complete test results locally retains			
Product Memory	Up to 40 products with associated specifications			
Special functions	Pass/Fail Indicator; QC chart; Event Log	Pass/Fail Indicator; QC chart; Event Log; Double-measurement		
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)			
Weight	16,8 kg (37.3 pounds)			
Patents and Certifications	Fr. Patents #1055362, #1055357, #1055354 - CE Certification			

Continuing research and development may result in specifications or appearance changes at any time

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