

PORTABLE ViscoDens

VDM-250.1

IN PROCESS TO EXCELLENCE

VDM-250 is a unique combination of Viscometer and Density meter.

Resonance technology, based on the changes of frequency of vibration element in the measured liquid, allows to receive highly accurate Kinematic Viscosity measurements in seconds.

VDM-250 measures Density and Dynamic Viscosity and calculates Kinematic Viscosity:

 $\mu = \eta/\rho$ (μ - Kinematic Viscosity; η - Dynamic Viscosity; ρ - Density)

Specifications

Measuring range:	
Density	0 3 g/cm³ (0 3000 kg/m³)
Dynamic Viscosity	Up to 10000 mPa·s(cP)
Temperature	-40 +85°C (-40 +185°F)
Accuracy:	
Density	±0.0003 or ±0.0005 g/cm³ (±0.3 or ±0.5 kg/m³)
Dynamic Viscosity	±1% of span
Temperature	±0.1°C (±0.2°F) or ±0.2°C (±0.4°F)
Repeatability:	
Density	±0.00015 or ±0.00025 g/cm³ (±0.15 or ±0.25 kg/m³)
Dynamic Viscosity	±0,5% of span
Temperature	±0.1°C (±0.2°F)
	Real Density: g/cm³, kg/m³, lb/gal, lb/ft³; API; SG
Supported measuring units	Dynamic Viscosity: mPa·s, cP
	Kinematic Viscosity: mm²/s, cSt
	Tables ASTM D 1250
	Alcohol Tables
	Referred Density: at 15°C, 20°C, 60°F; API60; SG60 Temperature in °C or °F
Ambient temperature	-40 +85°C (-40 +185°F)
Depth of submersion	Up to 6 meters (20 ft.)
Sensor:	
Type	Vibrating element (Resonance principle)
Material	Stainless steel SS 316 L; NiSpan C; Hastelloy C22
Intrinsically safe:	
Controller	ATEX II (2G) EEx ib [ia] IIB T4
Sensor	ATEX II 1G EEx ia IIB T4
Power supply	NiMH 3.6V-1500 mAh
Operating time without charging	Appr. 12 hours
Dimensions, weight:	
Controller	180 x 80 x 40 mm (7.1 x 3.2 x 1.6"), 0.6 kg (1.3 lb)
Sensor	220 x ø 45mm (8.7 x ø1.7"), 1 kg (2.2 lb)
Temperature compensation	Automatic
Viscosity compensation	Automatic
Reporting formats	Dynamic viscosity in mPa·s or cP; temperature in °C or °F
Data handling	Backlighted LCD display (2x16)
	Local memory up to 2000 results
	Build in Bluetooth for data transfer to printer or PC Optional Windows - based software
D. II	
Delivery	Delivered in compact carrying case

Advantages

- Direct density and viscosity measurement
- Density, reference density, specific gravity, API, ...
- Automatic temperature compensation
- No sampling required
- ATEX, IEC Hazloc certification
- Safe operation, low maintenance
- At any depths up to 6 meters
- Rigid construction for heavy duty outdoor operation
- Local results storage and Bluetooth data transfer

Applications

- Density, Viscosity & Temperature profile in storage tank
- Products consistency and adulteration check
- Density and viscosity control at outlets and delivery points
- In-tank blending and mixing control
- Molasses Density & Viscosity control in ethanol production
- Food, milk and diary products
- % alcohol check in beverage industry
- Petroleum products, fuels, lubricants



SOFTWARE

Data transmission to PC, pocket PC or portable printer via Bluetooth connection. Compatible for a Windows XP/Vista/7.

For more information please visit www.lemis-usa.com



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