LEMIS®
process

250 SERIES

Digital Portable Submersible Viscosity and Density Meter

VDM-250.1N

IN PROCESS TO EXCELLENCE

VDM-250.1N Overview

Sensor principle of operation

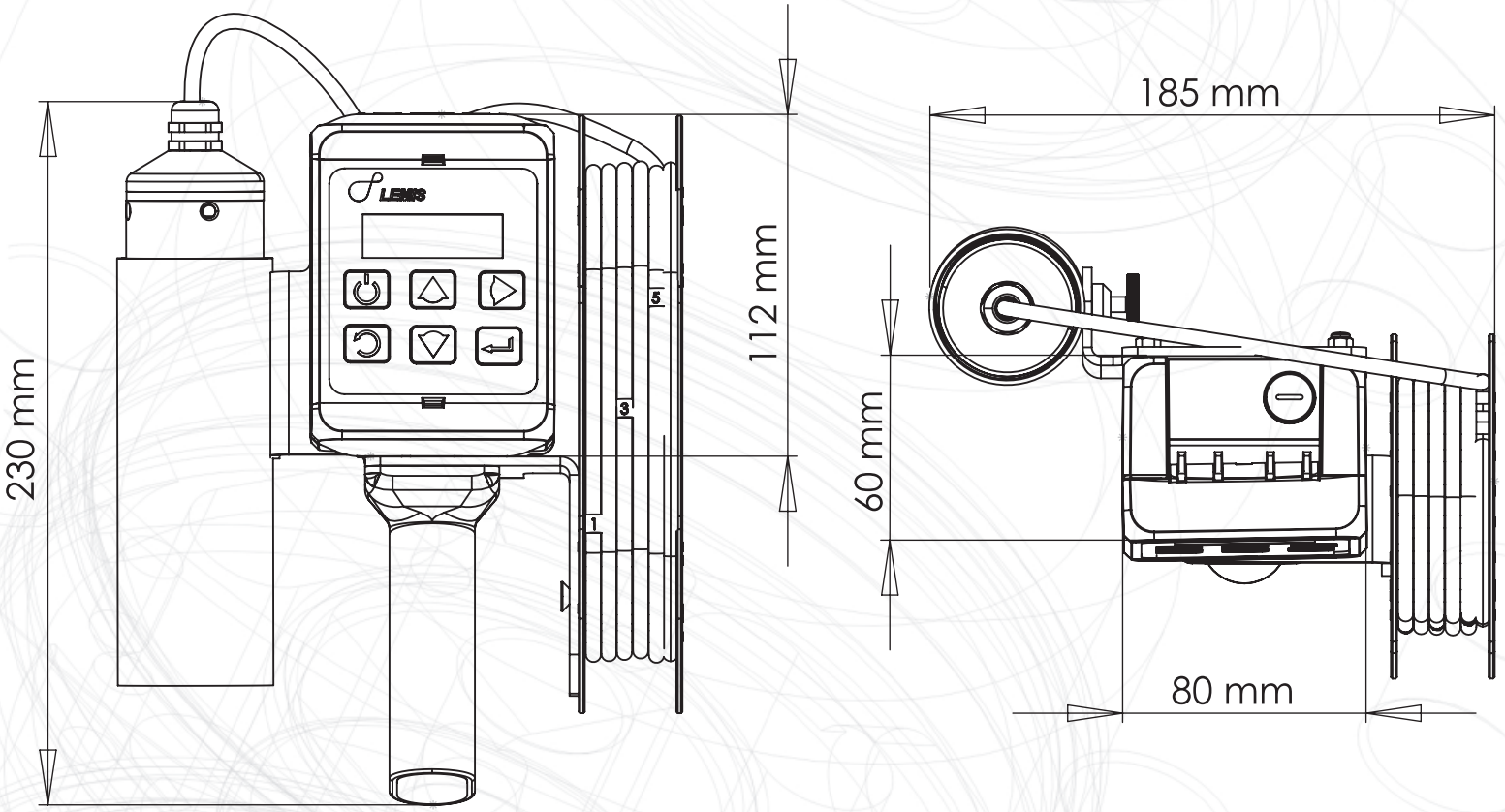
Detection of Density, Viscosity and Ullage

The detection method is based upon the principle of detecting a change in resonance frequency.

Temperature Measurement

Temperature measurement is obtained by changes in electrical resistance of a platinum element.

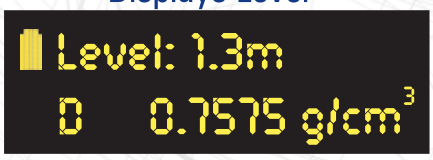
Dimensions



For Easy Distinguish

Displays Density and Temperature

Displays Level



Displays Dynamic and Kinematic Viscosity

Displays Specific Gravtiy related to 60°F

Advantages

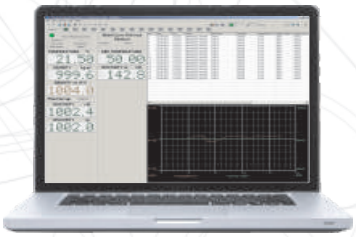
- Direct density and viscosity measurement
- Density, reference density, specific gravity, API
- Automatic temperature compensation
- No sampling required
- ATEX, IEC Hazloc certifcation
- Safe operation, low maintenance
- At any depths up to 6 meters
- Rigid construction for heavy duty outdoor operation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

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)
Supported measuring units	Real Density: g/cm³, kg/m³, lb/gal, lb/ft³; API; SG 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
Electronic box:	
Material	Antistatic Polyamide base
Power supply	NiMH 3.6V-2500 mAh rechargeable battery
Operating time without charging	Appr. 40 hours
Dimensions, weight:	
Controller	230 x 186 x117 mm (9.0 x 7.3 x 4.6")
Sensor	210 x ø45 mm (8.2 x ø1.7 in), 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	OLED Display (2x12) with backlight Local memory up to 2000 results Build in Bluetooth for data transfer to printer or PC
Delivery	Delivered in compact carrying case



Multifunctional software allows to proceed the measurements results in use-convenient form; Compatible for a Windows 7/8/10*

Immediate printout of the measurements by Bluetooth No need for PC*

Delivered in compact carrying case

*** Option**

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

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