

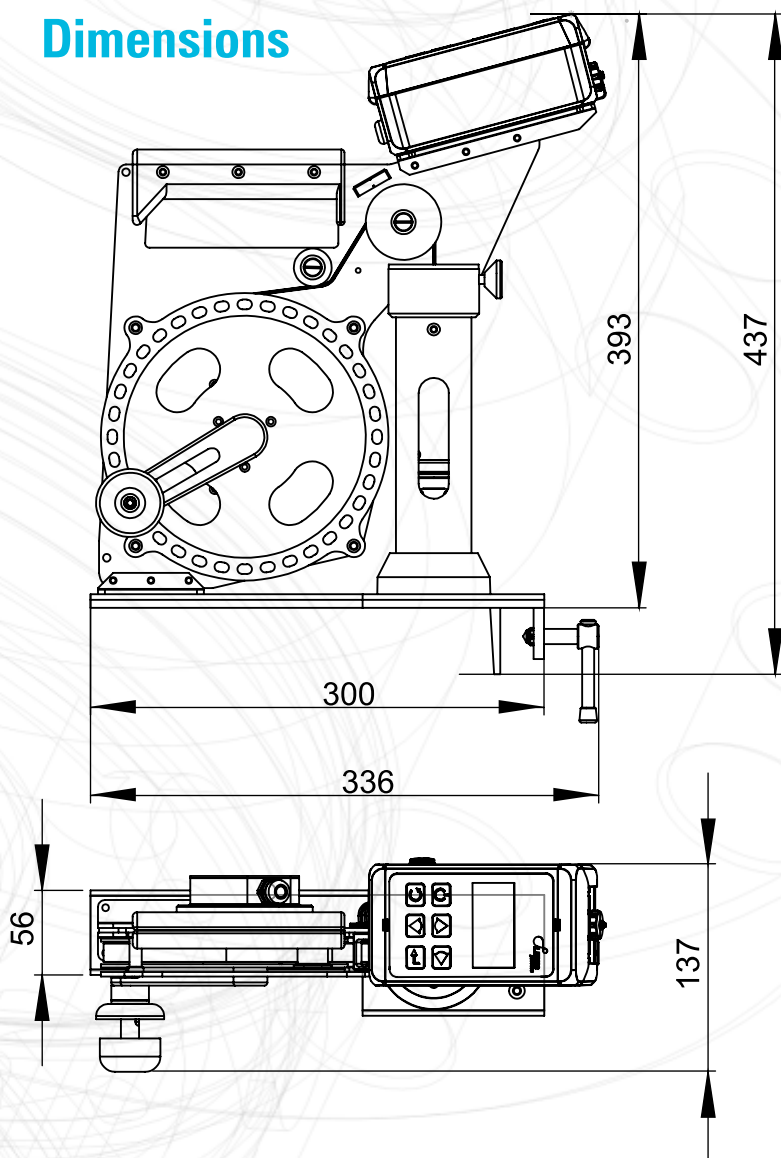


**Digital Portable Submersible**  
**Density/Specific Gravity/Concentration Meter**  
**DM-250.2**

**IN PROCESS TO EXCELLENCE**

The portable density meter DM-250.2 is designed for density measurements of any pure liquids directly in tanks, without sampling, at the depth up to **30 meters**.

## Dimensions

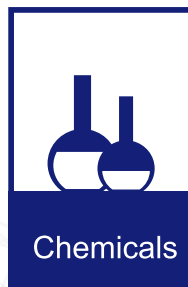


## Advantages

- Direct density measurements at any depths up to 30 meters
- No sampling required
- ATEX, IEC Hazloc certification
- Automatic temperature compensation
- Safe and easy operation, low maintenance
- Measures highly viscous liquids up to 2000 cP
- Rigid construction for heavy duty outdoor operations
- Local results storage up to 2000 results
- Bluetooth or USB data transfer

## Applications

- Petroleum industry
- Ethanol production
- Marine industry
- Chemical industry



# DM-250.2 OVERVIEW



## Displayed Menu Overview



## Principle:

### Detection of Density 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.



# Specifications

## Measuring range:

Density	0... 3 g/cm <sup>3</sup> (0... 3000 kg/m <sup>3</sup> )
Density Standard calibration	0.6... 1.2 g/cm <sup>3</sup> (600... 1200 kg/m <sup>3</sup> )
	0.9... 1.8 g/cm <sup>3</sup> (900... 1800 kg/m <sup>3</sup> )
Temperature	-40... +60°C (-40... +140°F)

## Accuracy:

Density	±0.0003 or ±0.0005 g/cm <sup>3</sup> (±0.3 or ±0.5 kg/m <sup>3</sup> )
Temperature	±0.1°C (±0.2°F) or ±0.2°C (±0.4°F)

## Repeatability:

Density	±0.00015 or ±0.00025 g/cm <sup>3</sup> (±0.15 or ±0.25 kg/m <sup>3</sup> )
Temperature	±0.1°C (±0.2°F)

## Resolution:

Density	0.0001 g/cm <sup>3</sup> (0.1 kg/m <sup>3</sup> )
Temperature	0.01°C (0.02°F)

## Supported measuring units

Real Density: g/cm<sup>3</sup>, kg/m<sup>3</sup>, lb/gal, lb/ft<sup>3</sup>; API; SG  
 Referred Density: at 15°C, 20°C, 60°F; API60; SG60  
 Tables ASTM D 1250  
 Alcohol Tables  
 Temperature in °C or °F

## Ambient temperature

-40... +60°C (-40... +140°F)

## Depth of submersion

Up to 30 meters (100 ft.)

## Sensor:

Type	Vibrating element (Resonance principle)
Material	Stainless steel SS 316 L; NiSpan C; Hastelloy C22
Instrument protection	IP68

## Hazardous environment Approvals

Controller	ATEX II 2(1)G Ex ib [ia Ga] IIB T4 Gb
Sensor	ATEX II 1G Ex ia IIB T4 Ga

## Charging device

USB with IP68 protected connector

## Power supply

NiMH 3.6V-1500mAh

## Operating time without charging

Appr. 12 hours

## Dimensions, weight:

Level block with sensor	437 x 336 x 137 mm (17.1 x 13.2 x 5.4 in), 3 kg (6.6 lb)
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## Temperature compensation

Automatic

## Viscosity compensation

Automatic

## Data handling

Display (128x64) with backlight  
 Local memory up to 2000 results with date/time stamped  
 Build-in Bluetooth or USB for data transfer to printer or PC  
 Windows - based software

## 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](http://www.lemis-process.com)**



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