



# PORTABLE / LABORATORY DENSITY METER

FOR LIQUEFIED PETROLEUM GASES (LPG)

**LPG** *Di*<sup>®</sup> (DM-250.3)

**IN PROCESS TO EXCELLENCE**

# Specifications

<b>Measuring range:</b>	
Density	0... 3 g/cm <sup>3</sup> (0... 3000 kg/m <sup>3</sup> )
Density Standard calibration	0.475... 1.0 g/cm <sup>3</sup> (475... 1000 kg/m <sup>3</sup> )
Temperature	-40... +85°C (-40... +185°F)
<b>Accuracy:</b>	
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)
<b>Repeatability:</b>	
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)
<b>Resolution:</b>	
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 Temperature in °C or °F
Ambient temperature	-40... +85°C (-40... +185°F)
Maximum Pressure	16 bar (1.6 MPa)
Testing Pressure	25 bar (2.5 MPa)
<b>Sensor:</b>	
Type	Vibrating element (Resonance principle)
Material	Stainless steel SS 316 L; NiSpan C; Hastelloy C22; Teflon
<b>Intrinsically safe:</b>	
Controller	ATEX II (2G) EEx ib [ia] IIB T4
Sensor	ATEX II 1G EEx ia IIB T4
<b>Weather rating:</b>	
Controller	IP 65
Sensor	IP 65
Power supply	NiMH 3.6V-1500 mAh
Charging device	Input: AC 100-240 V AC; Output: 4,5 – 9,5 V DC Charge: 0.8 A
Operating time without charging	Appr. 12 hours
Continuous operating time	No less than 10 hours
<b>Dimensions, weight:</b>	
Density Meter	245 x 225 x 120 mm (9.7 x 8.9 x 120 in) 5.5 kg (12.1 lb)
Transducer	180 x 85 x 40 mm (7.1 x 3.4 x 1.6 in) 0.7 kg (1.5 lb)
Connections	Adapter ø6mm; other connections is customized
Temperature compensation	Automatic
Sample volume	250 ml
Data handling	Backlighted LCD display (2x16) Local memory up to 1980 results with date/time stamped Build in Bluetooth for data transfer to printer or PC Optional Windows - based software
Delivery	Delivered in compact carrying case

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

The operating principle of the LPGDi Density Meter is resonance method (vibrating element) of measurement. It is based on the changes of frequency of the measured liquid. Resonance technology used in LPGDi Density meter allows to achieve higher accuracy and stability of the measurement. The design of the device considerably simplifies sampling and sample preparation procedure. Readings on the LCD display ease the measuring process and eliminate eventual human error. WINDOWS based Software allows necessary data processing and simplifies operation for the staff.



## Advantages

- Direct density measurement
- Rigorous factory calibration and testing
- Automatic temperature compensation
- Small and compact
- Maintenance free
- Excellent correlation to ASTM D1657
- Readings on LCD
- Easy to operate
- Data transfer to PC

## Applications

- LPG filling stations
- LPG fiscal transfer
- LPG storage
- Petroleum industry
- Concentration control at outlets and delivery points



SOFTWARE

**For more information please visit [www.lemis-process.com](http://www.lemis-process.com)**



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