



**DENSITY METER**

**FOR LOW FLOW RATE**

**DC-30**

**IN PROCESS TO EXCELLENCE**

# Specifications

<b>Measuring range:</b>	
Density	0.5... 2 g/cm <sup>3</sup> (500... 2000 kg/m <sup>3</sup> )
Temperature	-20°C to +100°C (-4°F to +212°F)
<b>Accuracy:</b>	
Density	Up to ±0.00025 g/cm <sup>3</sup> (up to ±0.25 kg/m <sup>3</sup> ) Up to ±0.0005 g/cm <sup>3</sup> (up to ±0.5 kg/m <sup>3</sup> ) Up to ±0.001 g/cm <sup>3</sup> (up to ±0.1 kg/m <sup>3</sup> )
Temperature	±0.1°C (±0.2°F)
<b>Repeatability:</b>	
Density	Up to ±0.000125 g/cm <sup>3</sup> (up to ±0.125 kg/m <sup>3</sup> ) Up to ±0.00025 g/cm <sup>3</sup> (up to ±0.25 kg/m <sup>3</sup> ) Up to ±0.0005 g/cm <sup>3</sup> (up to ±0.5 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)
Flow Range	10 to 100 L/h
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 D1250 Alcohol tables Temperature in °C or °F
Ambient temperature	-20°C to +50°C (-4°F to +122°F)
Operating pressure	Up to 10 Bar (Up to 145 psi)
<b>Materials:</b>	
Sensor	Stainless steel SS 316 L; NiSpan C; Hastelloy C22
Weather rating	IP65
Power supply	24V AC
Digital output	Standard: RS485, Modbus, Analog 4-20mA
Analog output	4-20 mA
<b>Dimensions, weight</b>	
Housing Dimensions	200 x 174 x 91 mm (7,9 x 6,9 x 3,6 in)
Weight	approx. 3 kg (approx. 6,6 lb)
Process connection	Swage nipple PN 06HB02 VA 1/8"-6
Temperature compensation	Automatic
Viscosity compensation	Automatic
Data Handling	Black lighted LCD 4x20
CE mark	Compliant EN 61326 ; EN 5011 ; EN 50082-2
Quality Assurance	ISO 9001:2000
Factory calibration	Calibration certificates supplied as standard

## Advantages

- Continuous measurements
- Easy cleaning
- High accuracy
- Simple installation
- Suitable for very viscous liquids
- Wide range of applications
- Compact design
- Automatic temperature compensation
- Rigorous factory testing

## Applications

- Chemical industry
- Pharmaceutical industry
- Cosmetic industries
- Petroleum industry
- Food & Beverages



## Principle of operation

LEMIS process uses the proven vibrating element technology which is widely accepted as the most accurate of continuous density measurement. It is based on the frequency changing of the sensitive unit and resistance of the built-in temperature sensor in dependence of characteristics of measured liquid. The oscillation period of the sensitive unit mainly depends on density and temperature of measured liquid. Continuous monitoring optimizes, controls and manages the processes. DC-30 series has a variety of applications, where low flow rate does not allow to install standard high flow systems. PC connection allows distance control for the most critical parameters in such processes as organic synthesis and chemical reactions in reactors.

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



**USA**  
**LEMIS USA, Inc.**  
 15556 Summit Park Dr. Suite 601  
 Montgomery  
 TX 77356, USA  
 Ph.: +1 281 465 8441

**EUROPE**  
**AS LEMIS Baltic**  
 26 Ganību dambis  
 Rīga, LV-1005  
 Latvia, EU  
 Ph.: +371 6738 3223  
 Fax: +371 6738 3270

**INDIA**  
**LEMIS India PVT LTD**  
 504, Bhumi Raj Costarica, 5th floor  
 Plot 1&2, Sector 18, Sanpada  
 Navi Mumbai-400705, INDIA  
 Ph.: +91 22 6721 5655  
 Fax: +91 22 6794 2666

**E-mail: [info@lemis-process.com](mailto:info@lemis-process.com)**