



40 SERIES

DC-40 - Density Meter

DC-41 - Viscosity Meter

DC-42 - Density & Viscosity

DC-43 - GAS Density Meter

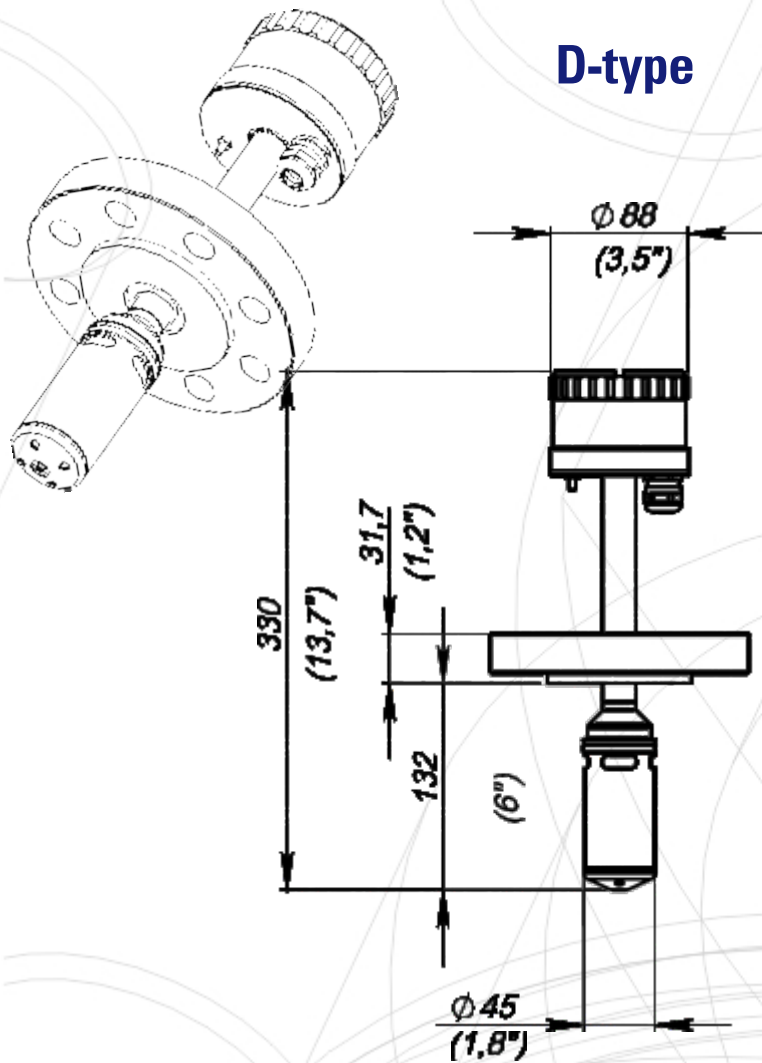


DENSITY METER

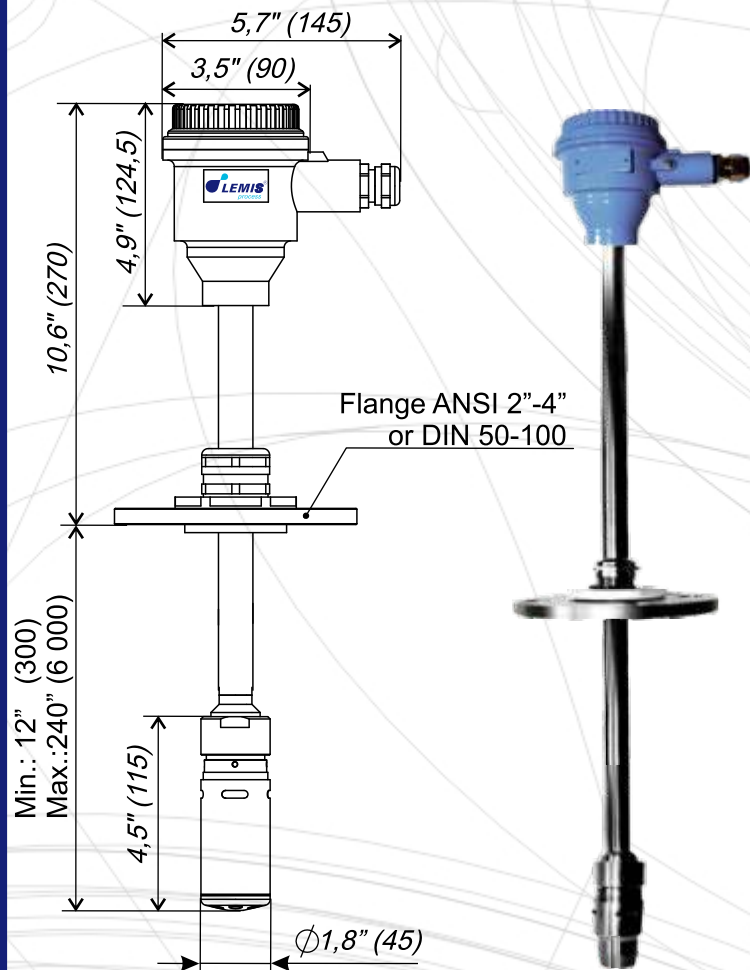
DC-40

IN PROCESS TO EXCELLENCE

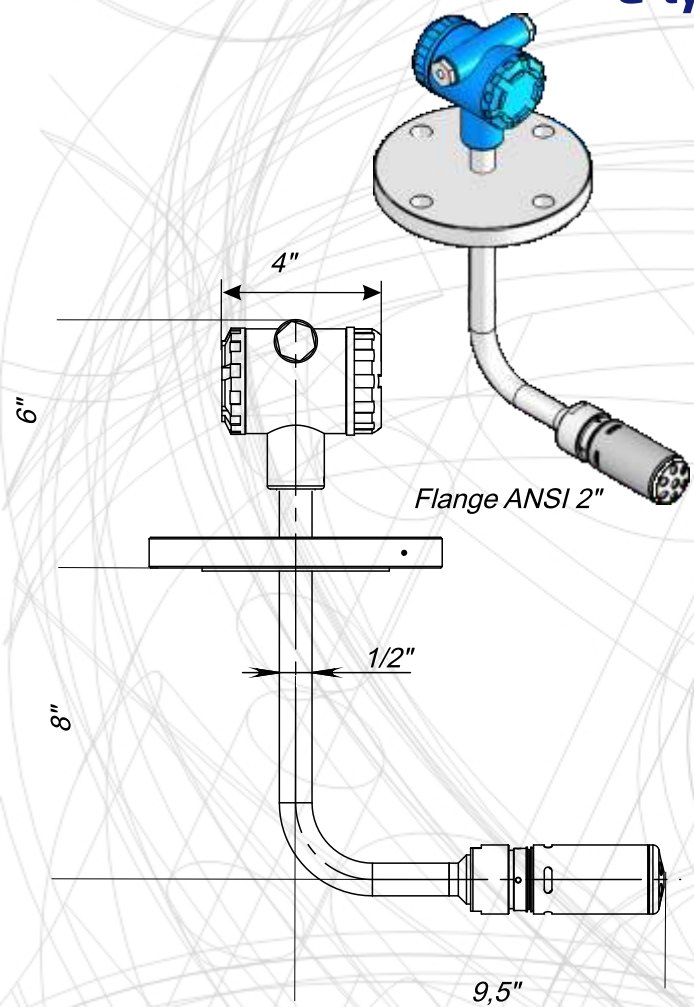
D-type



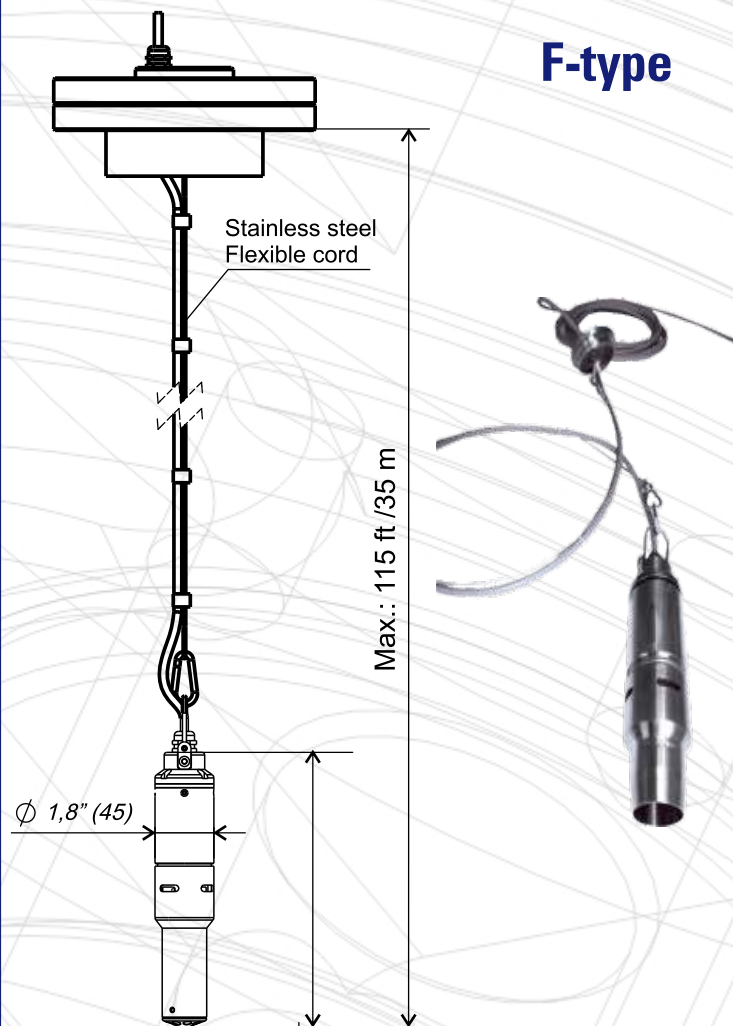
R-type



G-type



F-type



Specifications

Measuring range:

Density	0... 3 g/cm ³ (0... 3000 kg/m ³)
Density for GAS	0... 0.4 g/cm ³ (0... 400 kg/m ³)
Density Standard calibration	0.6... 1.2 g/cm ³ (600... 1200 kg/m ³)
Temperature	-200... +200°C (-328... +392°F)

Accuracy:

Density	Up to ±0.0001 g/cm ³ (up to ±0.1 kg/m ³)
Temperature	±0.1°C (±0.2°F) or ±0.2°C (±0.4°F)

Repeatability:

Density	Up to ±0.00002 g/cm ³ (up to ±0.02 kg/m ³)
Temperature	±0.1°C (±0.2°F)

Resolution:

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

Supported measuring units

Real Density: g/cm³, kg/m³, lb/gal, lb/ft³; API; SG
 Referred Density: at 15°C, 20°C, 60°F; API60; SG60
 Tables ASTM D 1250
 Temperature in °C or °F
 Alcohol tables

Temperature compensation

Automatic

Viscosity compensation

Automatic

Maximum Pressure

100 bar (10 MPa)

Installation types:

D-type	Direct insertion
R-type	Long rigid immersion
F-type	Flexible

Process Connections

Large selection of flanges available

Ambient temperature

-40... +85°C (-40... +185°F)

Weather rating

IP67 for sensor

Materials:

Sensor	Stainless steel SS 316 L; NiSpan C; Hastelloy C22; Teflon; Titanium
Other Wetted Parts	Stainless steel SS316 L or Hastelloy C22
Electronics Housing	Aluminum, blue epoxy finish

Electrical Connections

Screw terminals; Cable entry: 2 x 3/4" NPT

Power supply

6-12 VDC 30 mA (60 mA pick)

Output:

Sensor	Line density and temperature digital signals
Analog	Up to 3x isolated 4-20 mA, direct or reverse-acting, configurable
Digital	Standard: RS485, Modbus; user choice of signals and protocols

Factory calibration

Calibration certificates supplied as standard

CE mark

Compliant EN 61326 ; EN 5011 ; EN 50082-2

Implosion protection marking

ATEX II 1/2G Ex ia IIB T4; **IECEX** Ex ia IIB T4 Ga /Gb; CCE

APPLICATIONS

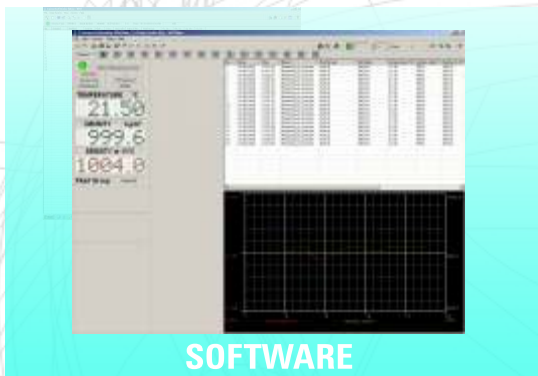
- Density, temperature and concentration monitoring in storage tanks
- Petroleum products, fuels, lubricants, LPG, LNG
- Concentrations of acids or corrosive chemical
- Food, Dairy & Beverages
- Product identification and consistency
- Concentration and dilution measurement
- Monitoring of reaction end in reactors
- In-tank mixing and blending



ADVANTAGES

- Continuous, online density monitoring at process conditions
- Accurately measures density of liquids with viscosity up to 2000 cSt
- Rigorous factory calibration and testing of the transducer
- Can operate in pressurized tanks
- Immersion in the tanks up to 30 meters
- No moving parts, virtually maintenance-free system
- We also can tune system specification for your specific requirements
- Hazardous area approvals
- Insensitive to liquid level, mix or turbulence
- Large offer of standard product configurations and installation available

Able to connect device to PC;
Multifunctional software allows to proceed the measurements results in user-convenient form;
Compatible for a Windows XP/Vista/7/8/10.



SOFTWARE



Calibration of **LEMIS process** density meters are performed in-house according ISO 9001:2000 quality assurance program and by using calibration materials that are traceable to national standards. In-house calibration and testing is performed specified dedicated calibration protocol for every standard model of the sensor. For most applications, on-site calibration is generally not required. **LEMIS process** sensors allows simple, switch-and-go field installation.

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



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