



40 SERIES

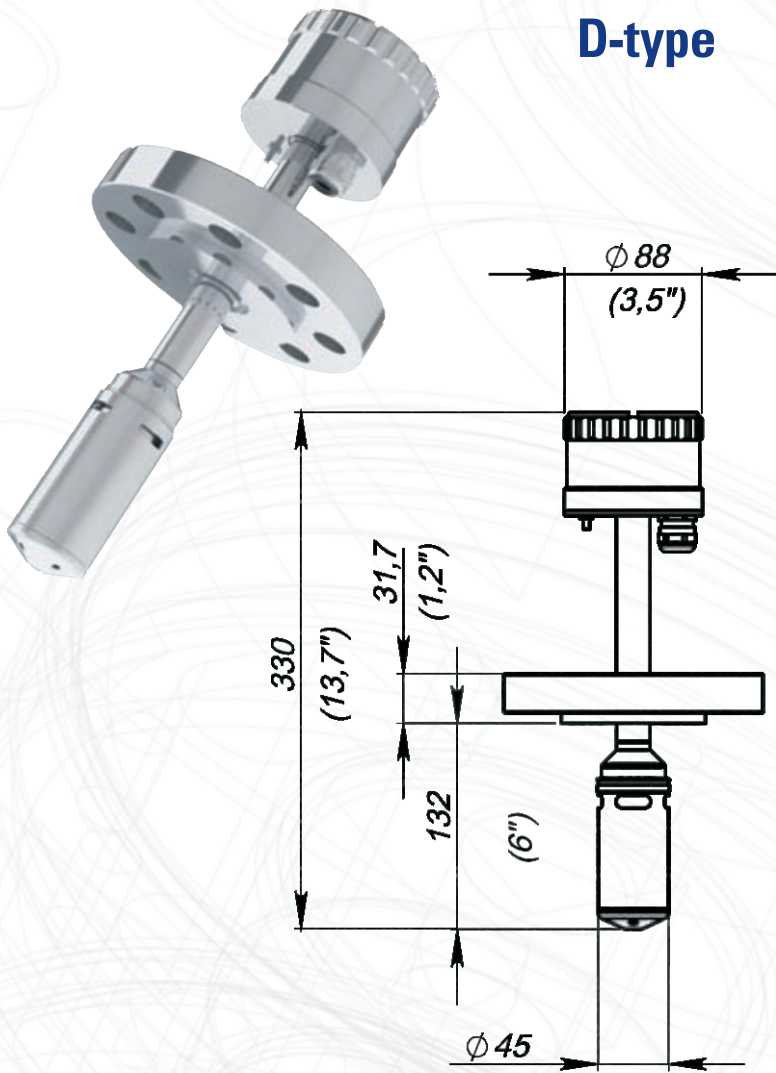


Density and Viscosity Meter

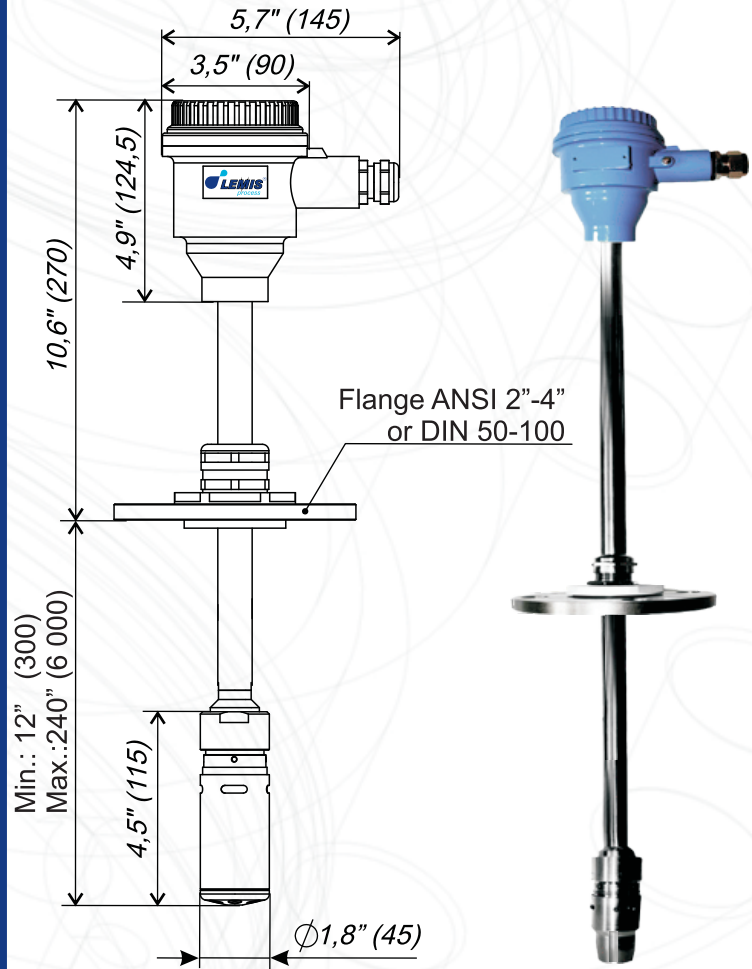
DC-42

IN PROCESS TO EXCELLENCE

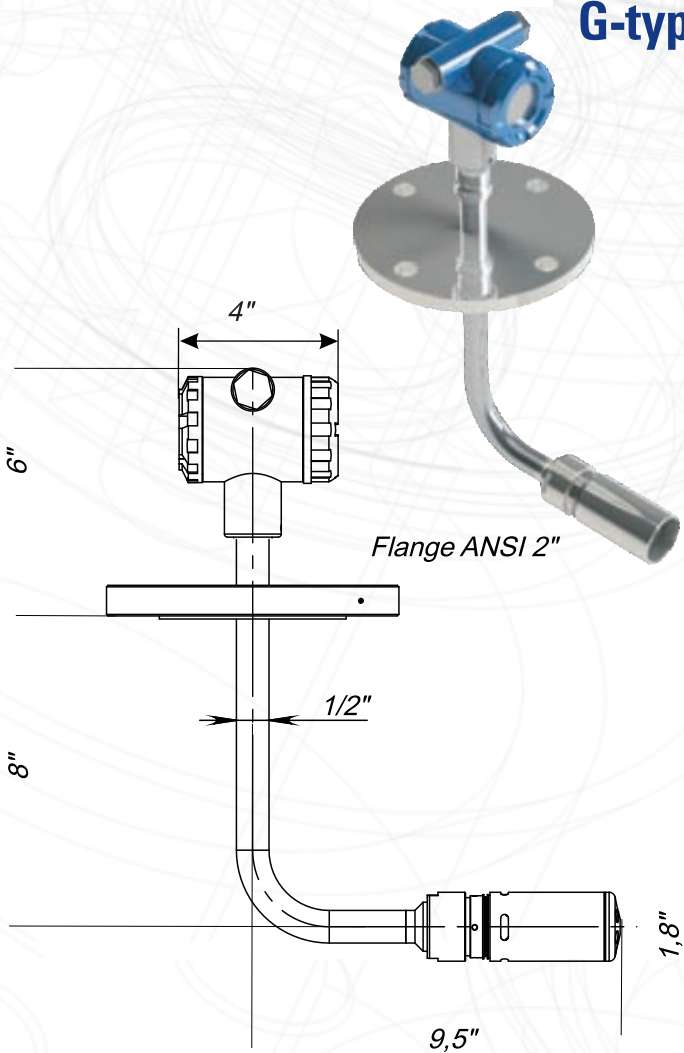
D-type



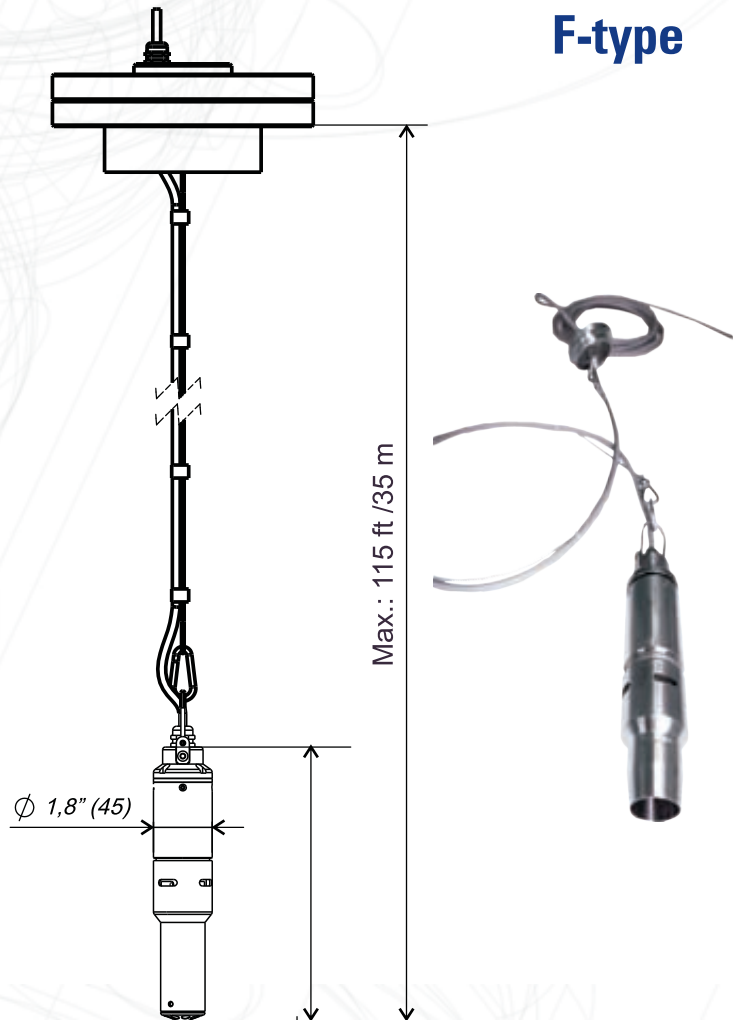
R-type



G-type



F-type



Specifications

Measuring range:

Density	0... 2 g/cm ³ (0... 2000 kg/m ³)
Density Standard	0.6... 1.2 g/cm ³ (600... 1200 kg/m ³)
Dynamic Viscosity	Up to 2000 mPa·s (up to 2000 cP)
Temperature	-40... +85°C (-40... +185°F)

Accuracy:

Density	Up to ±0.00025 g/cm ³ (up to ±0.25 kg/m ³)
Dynamic Viscosity	±1% of span
Temperature	±0.1°C (±0.4°F)

Repeatability:

Density	Up to ±0.0001 g/cm ³ (up to ±0.1 kg/m ³)
Dynamic Viscosity	±0.5% of span
Temperature	±0.1°C (±0.2°F)

Resolution:

Density	0.0001 g/cm ³ (0.1 kg/m ³)
Dynamic Viscosity	0.1 mPa·s (0.1 cP)
Temperature	0.01°C (0.02°F)

Supported Measuring Units	Real Density: g/cm ³ , kg/m ³ , lb/gal, lb/ft ³ ; API; SG Dynamic Viscosity: mPa·s, cP Kinematic Viscosity: mm ² /s, cSt Referred Density: at 15°C, 20°C, 60°F; API60; SG60 Tables ASTM D1250 Alcohol Tables Temperature in °C or °F
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Temperature Compensation	Automatic
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Viscosity Compensation	Automatic
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Operating Pressure	Up to 100 Bar (up to 1450 psi)
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Resolution:

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

Ambient Temperature	-40... +50°C (-40... +122°F)
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Weather Rating	IP67 for sensor and IP55 for Terminal Box
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Power voltage:

Sensor	Stainless steel SS316L; NiSpan C; Hastelloy C22; Teflon
Other Wetted Parts	Stainless steel SS316L or Hastelloy C22
Electronics Housing	Aluminum, blue epoxy finish

Electrical Connections	Screw Terminals; Cable entry: 2 x 3/4" NPT
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Power Supply	6-12 VDC 30 mA (60 mA pick)
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Output:

Sensor	Line density and temperature digital signals
Analog	up to 3x 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
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Implosion Protection Marking	ATEX II 1/2G Ex ia IIB T4; IECEx Ex ia IIB T4 Ga /Gb; CCE
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APPLICATIONS

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



ADVANTAGES

- Continuous, online viscosity monitoring at process conditions
- Accurately measures density and viscosity 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



Calibration of **LEMIS process** density and viscosity meters is performed in-house according ISO 9001:2015 quality assurance program and by using calibration materials that are traceable to national standards. In-house calibration and testing is performed with rigorous quality protocol for every standard model of the sensor. **LEMIS process** installation packs allow simple, switch-and-go field installation. When ordered with **LEMIS process** installation pack, the sensor has mounted at factory, tested and calibrated already fitted assuring best performance and eliminating the need for in-situ calibration for most of applications. The sensors has no moving parts and virtually maintenance-free.



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



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