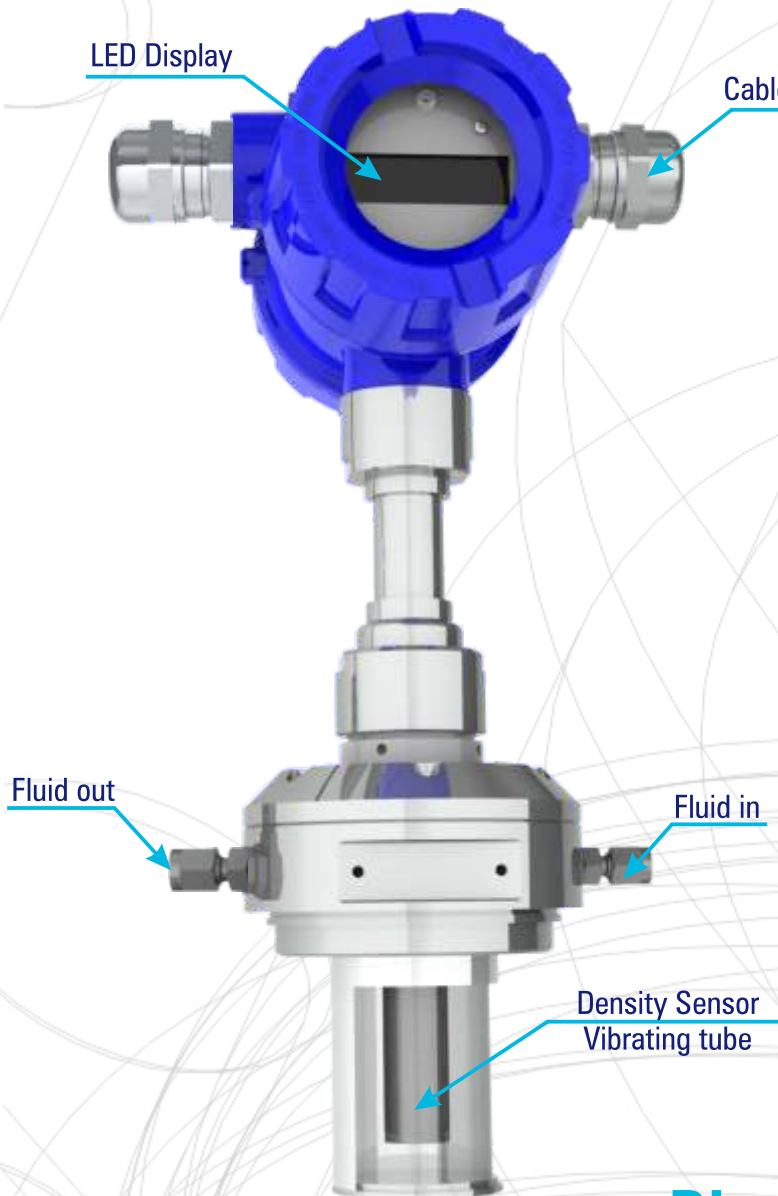


GAS DENSITY METER

DC-53

IN PROCESS TO EXCELLENCE

DC-53 Overview



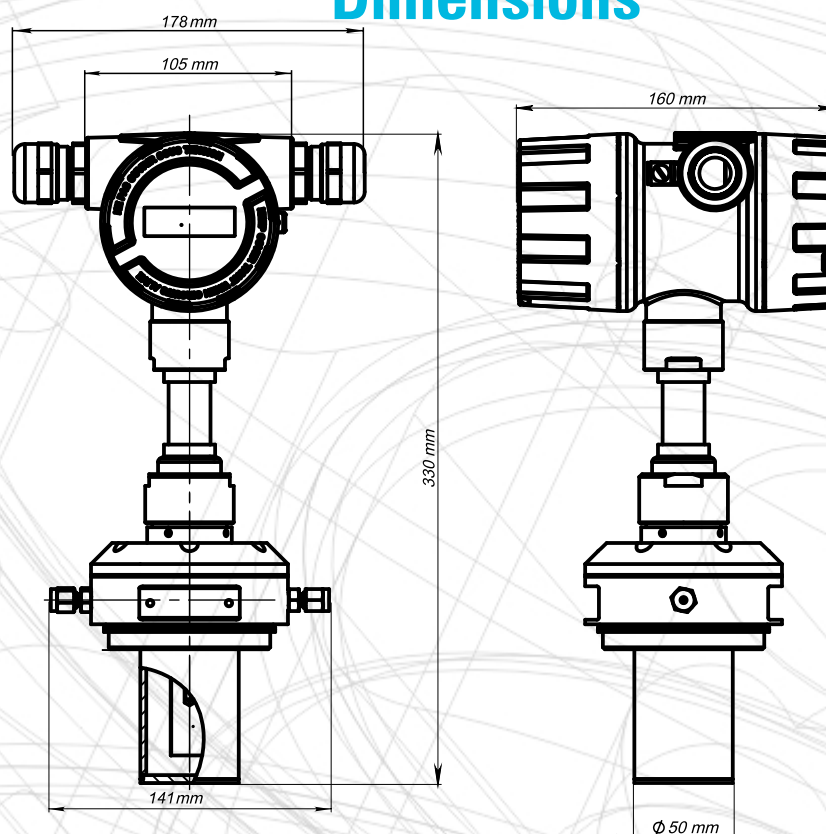
Key application

DC-53 Density Meter is designed for accurate, continuous monitoring of the technological process. High-accuracy density data for natural gas mixtures are required in entire range of pressure, temperature and compositions encountered in custody transfer.

Operating principle

The gas passed over the cylinder tube resonance sensor vibrating at its natural frequency. The mass of gas in contact with the vibrating walls vibrates with the cylinder. Depends upon the gas density and, since increasing the vibrating mass decreases the natural frequency of vibration, the gas density is simply determined by measuring the change in sensor resonant frequency. This measurement method provides precise gas density values in seconds.

Dimensions



Specifications

Measuring range:

Density	1... 400 kg/m ³ (0001... 0.4 g/cm ³)
Density Standard Calibration	1...10 kg/m ³ 10...100 kg/m ³ 25...250 kg/m ³ 40...400 kg/m ³
Standard Temperature	-40°C to +85°C (-40°F to +185°F)
Extended Temperature	+20°C to +150°C (+68°F to +302°F)

Accuracy:

Density	±0.1% of reading
Temperature	±0.5°C (±0.9°F)

Repeatability:

Density	±0.1% of scale
Temperature	±0.1°C (±0.2°F)

Resolution:

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

Operating pressure	Up to 30 Bar (up to 435 psi)
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Supported measuring units	Real density: g/cm ³ , kg/m ³ , lb/gal, lb/ft ³ ; Referred density: at 15°C; 20°C; 60°F; API60;
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Ambient temperature	-20... +60°C (-4... +140°F)
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Sensor:

Type	Vibrating element (Resonance principle)
Material	Stainless steel SS 316 L, NiSpan C, Teflon
Power supply	24 VDC

Dimensions, weight

Height	330 mm (5.76 in)
Width	220 mm (5.55 in)
Length	160 mm (3.9 in)
Weight	approx.4.5 kg (approx. 9.9 lb)

Process connection	NPT 1/8", 1/4", 1/2" ANSI 1/2", 1" * DIN 10, 15, 25 *
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Weather rating	IP68
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Digital output	Standard: RS485, Modbus or user choice of signals and protocols
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Analog output	4-20 mA up to 2 channels and HART
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Implosion protection marking	ATEX II 1/2G Ex ia IIB T4; IECEx Ex ia IIB T4 Ga /Gb
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Quality Assurance	ISO 9001:2015
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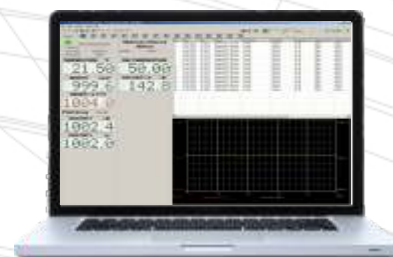
APPLICATIONS

- Gas blending
- Synthesis gas mixtures
- Industrial gas purity
- Enhanced gas flow control
- Fiscal custody transfer
- Biogas composition
- Refinery flare gas monitoring
- Portable gas measurement

ADVANTAGES

- DIN rail mount
- Small form factor for easy installation
- ATEX Hazardous area certification
- Less than 120ml fluid sample required for measurement

SOFTWARE:



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



* Device Modification DC-53S with connection flanges

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



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