



VDC-30 SERIES

Kinematic
Viscosity

Dynamic
Viscosity

Density



PROCESS VISCOMETER

FOR LOW FLOW RATE

VDC-30

IN PROCESS TO EXCELLENCE

Specifications

Measuring range:

Dynamic Viscosity	Up to 2000 mPa·s (up to 2000 cP)
Density	0... 3 g/cm ³ (0... 3000 kg/m ³)
Density Standard calibration	0.6... 1.2 g/cm ³ (600... 1200 kg/m ³)
Temperature	-20°C to +100°C (-4°F to +212°F)

Accuracy:

Dynamic Viscosity	±1% of span
Density	±0.00025 g/cm ³ (± 0.25 kg/m ³)
Temperature	±0.1°C (±0.2°F) or ±0.2°C (±0.4°F)

Repeatability:

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

Resolution:

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

Flow Range	10 to 100 L/h
Supported measuring units	Real density: g/cm ³ , kg/m ³ , lb/gal, lb/ft ³ ; 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)
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Operating pressure	Up to 10 Bar (Up to 145 psi)
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Materials:

Sensor	Stainless steel SS 316 L; NiSpan C; Hastelloy C22
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Weather rating	IP65
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Power supply	24V AC
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Digital output	Standard: RS485, Modbus, Analog 4-20mA
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Analog output	4-20 mA
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Dimensions, weight

Housing Dimensions	200 x 174 x 91 mm (7,9 x 6,9 x 3,6 in)
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Weight	approx. 3 kg (approx. 6,6 lb)
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Process connection	Swage nipple PN 06HB02 VA 1/8"-6
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Temperature compensation	Automatic
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Viscosity compensation	Automatic
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Data Handling	Black lighted LCD 4x20
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CE mark	Compliant EN 61326 ; EN 5011 ; EN 50082-2
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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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Factory calibration	Calibration certificates supplied as standard
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Advantages

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

Applications

- Marine
- Military applications
- Pharmaceutical and cosmetic industries
- Petroleum industry
- Food & Beverages



Principle of quality

VDC-30 principle of operation is based on the changing of frequency characteristics of the sensitive element in the measured liquid. Device measures continuously Dynamic Viscosity and Real Density to calculate Kinematic Viscosity of the liquid. Usually all the industrial measuring systems operate with dynamic viscosity unlike most of laboratories measure kinematic viscosity via capillary viscometers. So it is critically important to compare laboratory measurements with measurements made by process meters and evaluate measuring system`s performance.

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



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