



DENSITY METER

DC-50

IN PROCESS TO EXCELLENCE

Specifications

Measuring range:

Density	0... 3 g/cm ³ (0... 3000 kg/m ³)
Density NG, PG, LNG	0... 0.4 g/cm ³ (0... 400 kg/m ³)
Density LPG	0.4... 0.65 g/cm ³ (400... 650 kg/m ³)
Density Standard	0.65... 1.6 g/cm ³ (650... 1600 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	±0.2°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)

Process connection

NPT 1/2", 3/4", 1"
ANSI 1/2", 1", 2", 3", 4"
DN 10, 15, 25, 50, 80, 100

Operating pressure

Up to 100 Bar (up to 1450 psi)

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 D1250
Alcohol tables
Temperature in °C or °F

Ambient temperature

-40... +85°C (-40... +185°F)

Weather rating

IP68 for sensor and IP65 for other parts

Materials:

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

Power voltage:

Device	110-230V AC (50-60 Hz) or 24V DC (16-28V DC)
Sensor	6-14V DC (30 mA)

Implosion protection marking

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

Digital output

Standard: RS485, Modbus; user choice of signals and protocols

Analog output

4-20 mA, up to 3 channels

Temperature compensation

Automatic

Viscosity compensation

Automatic

Factory calibration

Calibration certificates supplied as standard

Advantages

- Continuous measurements
- High accuracy
- Simple installation
- Suitable for very viscous liquids
- Wide range of applications
- Safe operation, low maintenance
- Easy cleaning
- Rigorous factory testing
- Compact design
- Automatic viscosity/temperature compensation

Applications

- Petroleum industry
- Ethanol production
- Food & Beverages
- Chemical industry
- Cosmetic industries
- Process monitoring and control

Software

- Receiving of density and temperature values from Terminal Box via cable
- Calculating of relative/referred density of product on the base of built-in tables
- Various formats for data reading
- Storage of the measured and calculated values in the database tables
- Conversion of the database tables to EXCEL format and printing the results
- Up to 16 sensors monitoring (another sensors quantity is optional)

DC-50 S-type



DC-50 G-type



DC-50 T-type



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