

DLO-C3 density sensor for liquids



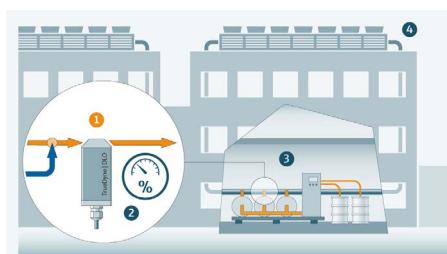
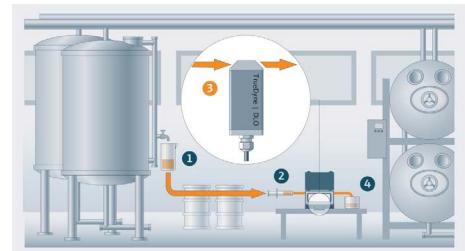
The world's smallest density sensor for liquids with laboratory accuracy! The "core version", without housing, allows the use in apparatus engineering in the smallest installation space. Thus, there is no need to go to the laboratory for reliable measurements. Thanks to a sub-millimeter measuring channel, the properties and quality of a liquid can be precisely monitored even in confined spaces.

Application examples:

- Very compact design, for integration into small apparatus and systems
- Dedicated for OEM applications in apparatus engineering
- Monitoring and control of the quality and concentration of liquids

Quality sensor in the smallest possible size

Due to the smallest possible size, this sensor can be installed in "handheld systems", but also in other transportable measuring systems that require a small size. Laboratory accuracy does not have to be sacrificed.



Concentration monitoring

The refrigerant in a refrigeration circuit is in most cases a mixture of ethylene glycol and water. The optimum concentration is determined depending on the minimum temperature entering the circuit in order to prevent the liquid from freezing. At the same time, the aim is to keep the water content as high as possible, as this has a positive effect on thermal conductivity. With TrueDyne's DLO-C3 sensor you collect the necessary data to determine the concentration of the medium in the running process.

Measured variables:

Density, temperature and quantities derived therefrom (e.g., standard density, concentration, etc.)

Typical media:

- Gasoline, diesel, kerosene
- OME (synthetic materials)
- Oils and lubricants
- Water-based media
- Methanol, isopropanol
- LPG
- AdBlue

Concentration packages:

- Sugar in water
- Alcohol in water
- Salt in water
- Minerals in water
- Hydrogen peroxide in water
- Ethylene glycol in water
- methanol in water

Media and concentrations that deviate from those listed above may be used after individual clarification if necessary.

Accuracy of measurement:

Density: $\pm 0,5 \text{ kg/m}^3$ ($\pm 0,2 \text{ kg/m}^3$)

Permitted density measurement range:

0...1600 kg/m^3

Permitted viscosity range:

0,3...50 mPa s

Permitted process pressure range:

0...20 bar (absolute)

Permitted flow range:

0...10 l/h (water)

Temperature conditions:

-40...+60 °C

Fluidic Interfaces:

2x M5 threaded holes

Electrical interface:

- UART TTL (Modbus Protocol)
- Optional: Customer specific communication

Dimensions:

- Length: 36 mm
- Width: 30 mm
- Height: 15 mm



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