Sold in North America by:
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DLO-M2 density sensor for liquids

The sensor measures the density of liquids during the process itself, also in potentially explosive areas – no need to go to the laboratory. Thanks to a sub-millimeter measuring channel, the properties and quality of a liquid can be precisely monitored even in confined spaces.

Application examples:

- Determination of the mass of liquids: If the density is measured in addition to volumetric flow measurement in orifices, turbines or displacement devices, the mass can be calculated from it.
- Monitoring and control of the quality and concentration of liquids

From volume (l) to mass (kg)

Typically, when refueling an aircraft via a fueling system, the volume of the transfered liquid is measured. However, since the density varies depending on the pressure and temperature, it is not possible to make precise statements about the mass. With the DLO-M2 sensor from TrueDyne, you can record the necessary density data during the process and use it to calculate the mass (m=V·ρ).

Concentration monitoring

The refrigerant in a refrigeration circuit is in most cases a mixture of ethylene glycol and water. The optimum concentration depends on the minimum temperature in the cooling 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-M2 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

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

Accuracy of measurement:

- Density: ±0,5 kg/m³
  (Option ±0,2 kg/m³)

Permitted density measurement range:

0...1200 kg/m³

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:

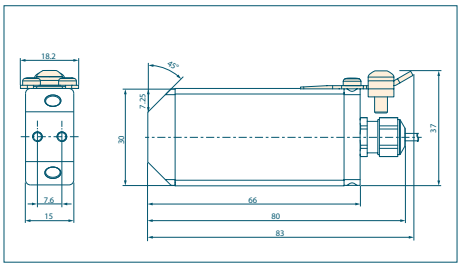
-40...+60 °C

Fluidic Interfaces:

2x M5 threaded holes

Electrical interface:

Modbus RTU over RS485



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