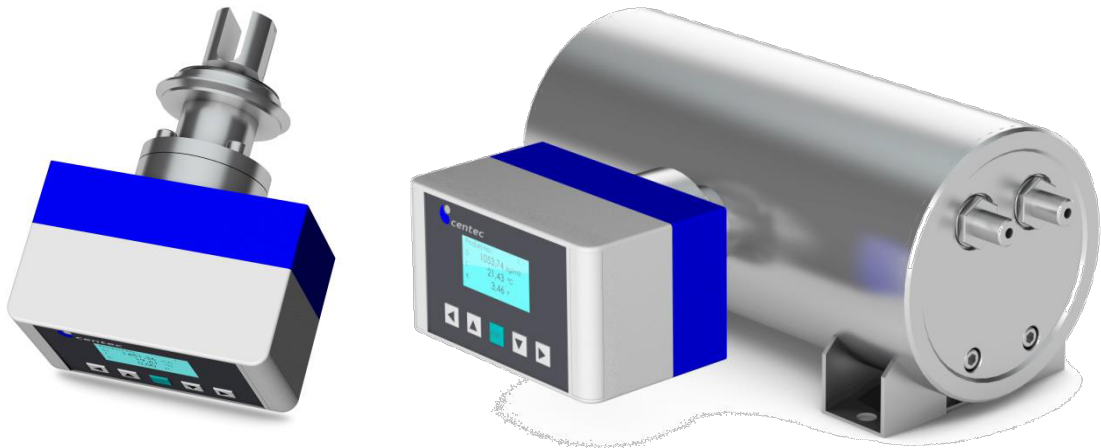


Alcohol Measurement by Density or Sound Velocity

ALCOHOL MONITOR



The Principle

ALCOHOL MONITOR is a variant of RHOTEC or SONATEC and allows measuring the content of alcohol (ethanol) in a mixture of water and ethanol. The instrument uses the functionality of either RHOTEC (density measurement) or SONATEC (sound velocity measurement) and is designed for applications requiring maximum sensitivity and highest accuracy. It is easy to operate and maintenance-free. The density measurement is based on the oscillating U-tube principle. For sound velocity measurement a sound pulse is created by a sonic transmitter and detected by a sonic receiver. As a specific property of each liquid, the correlation between concentration and density resp. sound velocity can be described by a mathematical polynomial. With decades of experience and our own laboratory facilities, Centec know the polynomials for a large number of products. Any temperature drifts of the measured signal are automatically compensated for.

Technical Data

Measuring Range RHOTEC	0 - 100 vol. %
Measuring Ranges SONATEC	I) 0 - 20 vol. % II) 35 - 100 vol. %
Accuracy	± 0,02 vol. % (RHOTEC) ± 0,06 vol. % (SONATEC)
Response Time	≤ 1 s
Pressure of Operation	max. 16 bar
Temperature of Operation	- 25 - + 125 °C (Pt1000)
Material	1.4404/1.4435/AISI 316L; Hastelloy; Tantalum; etc.
Input	6 x digital (24 VDC)
Output	3 x digital (24 VDC) & 2 x analog (4 - 20 mA)
Profibus DP	option
Enclosure Rating	IP65; option: ATEX (Ex II 2G EEx d IIC T6)
Power Supply	24 VDC

Highlights

Very accurate determination of alcohol in the manufacturing process
Patented compact design with local display available
Hygienic execution; various materials and flange connections

The Centec Group

Centec offer fully automated, skid-mounted process units and high precision measurement technology from a single source. Our systems and sensors are engineered to perfectly meet the most demanding requirements of the brewery, beverage, food and pharmaceutical industries. With a team of experienced engineers, we aim to create quantifiable added value for our customers. We are your partner from planning and design through to commissioning of your plant.



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