ALCOHOL MEASUREMENT

ALCOHOL MONITOR RHOTEC

Alcohol Measurement by Density

The ALCOHOL MONITOR RHOTEC continuously measures the alcohol content of water-ethanol mixtures by density, including during the production of beer and beer mixed drinks.



Alcohol Directly in the Process
The measured value is continuously available during production.

Density Measurement
Alcohol is determined using the RHOTEC oscillating U-tube principle.

For Ethanol-Water Mixtures
Designed to measure alcohol in mixtures of water and ethanol.

Measuring Principle

For density measurement, the liquid flows through a thin U-shaped tube in the sensor. The oscillation of the tube is detected; even small changes in density affect the signal and are precisely detected.

Applications

- Water-Ethanol Mixtures
- Beer
- Beer Mixed Drinks
- Alcohol Content
- Density Measurement
- In-line Measurement

Temperature drift of the measurement signal is automatically compensated. European patent application: 1 439 438 B1.

Technical Data

The following values correspond to the underlying RHOTEC sensor platform. Product-specific alcohol measurement is configured according to the medium and process conditions.

PARAMETER	ALCOHOL MONITOR RHOTEC
Measuring Principle	Density Measurement / RHOTEC
Measuring Ranges	0 - 3 g/cm³ (density) 0 - 100 vol. % (alcohol)
Accuracies	± 0,0001 g/cm³ (density) ± 0,02 vol. % (alcohol)
Response Time	≤ 1 s
Operating Pressure	max. 50 bar
Operating Temperature / Temperature Sensor	-25 to +125 °C / Pt1000
Material	1.4404 / 1.4435 / AISI 316L; Hastelloy; tantalum; others on request
Input	1 x analog (4 - 20 mA) & 6 x digital (24 VDC)
Output / Fieldbus	2 x analog (4 - 20 mA) & 3 x digital (24 VDC) optional: PROFIBUS DP & PROFINET
Enclosure Rating	IP65; optional: ATEX (II 3G Ex ic IIC T6 Gc)
Power Supply	24 VDC

Highly Accurate Alcohol Determination

Density-based measurement during production.

Display at the Measuring Point

Depending on the version, the measured value can be read directly at the sensor.

Hygienic Design

Various materials and flange connections.

Design & Integration

We support you with the project-specific selection and integration of the **ALCOHOL MONITOR RHOTEC** - from measuring range and installation position to process connection and interfaces.

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