ALCOHOL MEASUREMENT

ALCOHOL MONITOR SONATEC

Alcohol Measurement by Sound Velocity

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



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

Sound Velocity
Alcohol is determined using SONATEC sound velocity measurement.

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

Measuring Principle

For sound velocity measurement, a piezoelectric element generates a sound pulse that is detected by a receiver. The transit time of the signal is used to determine sound velocity and evaluate the concentration.

Applications

- Water-Ethanol Mixtures
- Beer
- Beer Mixed Drinks
- Alcohol Content
- Sound Velocity
- 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 SONATEC sensor platform. Product-specific alcohol measurement is configured according to the medium and process conditions.

PARAMETER	ALCOHOL MONITOR SONATEC
Measuring Principle	Sound Velocity Measurement / SONATEC
Measuring Ranges	I) 0 - 20 vol. % II) 35 - 70 vol. %
Accuracy	± 0,06 vol. %
Response Time	≤ 1 s
Operating Pressure	max. 16 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

Acoustic 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 SONATEC** - from measuring range and installation position to process connection and interfaces.

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