OFFICIAL ALCOHOL QUANTITY MEASUREMENT

ETHANOL-MESSSYSTEM ALCOTAX

Continuous Measurement of Mass Flow and Alcohol Concentration

The AlcoTax ethanol measuring system continuously measures mass flow and alcohol concentration in the flowing product. Litres of alcohol-water mixture and pure alcohol at 20 °C are calculated from these measurements and totalised for official recording.



Two Measured Variables
Mass flow in the main stream and concentration in the bypass.

Official Recording
Volume totalisation with storage protected against power failure.

Complete Measuring System
Sensors, fittings and pumps mounted in a stainless-steel frame.

Measuring Principle

A Coriolis flow meter measures mass flow in the main stream. In parallel, Centec density measurement in the bypass determines the alcohol concentration. The evaluation computer processes both signals, totalises the volumes and displays the average concentration.

Applications

- Bioethanol Production
- Monopoly Distilleries
- After Dealcoholisation
- Alcohol-Water Mixture
- Pure Alcohol at 20 °C
- Official Recording
- Concentration
- Mass Flow

In simplified form, the system is also used to measure and control concentration, flow and quantity in applications without customs relevance. The installation and control cabinet are prepared for official sealing.

Technical Data

Technical data for selection and integration of the AlcoTax ethanol measuring system.

PARAMETER	ETHANOL-MESSSYSTEM ALCOTAX
Alcohol Concentration / Measuring Range	0 - 100 mass % / vol. %
Alcohol Concentration Accuracy	± 0,03 mass % (90 - 100 %) ± 0,05 mass % (0 - 100 %)
Alcohol Concentration Repeatability	± 0,01 mass % (90 - 100 %) ± 0,02 mass % (0 - 100 %)
Mass Flow / Measuring Range	6 - 270.000 kg/h
Mass Flow Accuracy	± 0,1 % of reading
Mass Flow Repeatability	± 0,05 % of reading
Overall System Repeatability	< ± 0,03 %
Operating Temperature	5 - 40 °C
Sensor Material	1.4404 / 1.4435 / AISI 316L; Hastelloy; tantalum; etc.
Sensor Input	6 x digital (24 VDC)
Sensor Output	3 x digital (24 VDC) & 2 x analog (4 - 20 mA)
Enclosure Rating	IP65; Optional: ATEX (Ex II 2G EEx d IIC T6)
Power Supply	24 VDC

Continuous Measurement
Highly accurate measurement in the running process.

Individual Acceptance
Individual acceptance and inspection by the BfB.

Project-Specific
Individually designed, low-maintenance and fully automatic.

Design & Integration

We support you with the project-specific selection and integration of the **ETHANOL-MESSSYSTEM ALCOTAX** - from measuring range and installation position to process connection and interfaces.

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