

Gear type flow meter VC 0.01

As precise as Swiss clockwork:

World's smallest gear type flow meter measures volume flows from 0.3 ml/min



Technical data

Min. measuring range	0.3 ml/min
Min. viscosity	0.8 mm ² /s

Applications

- For test benches for testing fuel injectors
- For monitoring micro-dosing processes in the pharmaceutical and cosmetics industry as well as in the chemical and petrochemical industry

We have significantly expanded the range of applications for high precision gear type flow meters. With the new VC 0.01, it is possible to measure flow rates of 0.3 ml/min precisely and reproducibly – with a simultaneous low viscosity of up to 0.8 mm²/s. The world's smallest gear type flow meter was developed for test benches for testing fuel injectors.

In an effort to ensure long-term precision, we have optimised all parameters from design and manufacture to assembly. Only extremely corrosion-resistant stainless steel is used for the housings and gears. Special ball bearings as well as the revised gear geometry ensure a minimum resistance within the measuring unit. As with

the larger meters of the VC series, the gear rotation is scanned without contact and, in combination with a specially developed high performance sensor system, meets all the requirements for measuring very small quantities.

In order to meet the high demands, the limits of what is technically possible for production and assembly had to be newly explored. The housings and gears are manufactured on special CNC machines, then cleaned in an ultrasonic system before being assembled in a climate-controlled clean-air environment and finally tested on a high-precision calibration test bench.



Manufacturing



Assembly



Test bench