VOLUME SENSOR VC0.025

DP-K-011-000003

The measuring mechanism, which consists of two high-precision gear wheels, is driven by the liquid flow according to the displacement principle.
The gears run almost contactless in the measuring chamber.
Low-friction ball or plain bearings serve as bearing elements. Due to the measuring principle, no settling sections are necessary at the inlet and outlet.
This means that machines/plants can be designed more compactly. All moving parts are lubricated by the measuring medium.
The movement of the gearwheel is scanned contactlessly by two sensors in the cover as standard. When the measuring mechanism rotates by one tooth pitch, a signal is generated per sensor which corresponds to the so-called geometric tooth volume Vgz. The two-channel scanning enables a higher measured value resolution as well as a directional recognition of the flow.

TECHNICAL DATA	
Specific data	
Flow measuring range	0,008–2 l/min
Measuring unit start-up	bei 0,001 l/min
Linearised measurement accuracy	± 0.3 % of the measured value (at viscosity: min. 20 mm²/s)
Repeatability	± 0,05 %
Resolution	40.000 pulses/l
Max. perm. pressure	200 bar
Operating fluid temperature	–15–120°C
Ambient temperature	–15–80°C
Max. foreign particle size	20 µm
Electrical data	
Pulse volume	0.025 cm³/pulse
Line connection Pipe connection	G1/8"
Electronic output	2 square-wave signals, 90° offset
Electrical connection	Plastic angle plug – terminal strip Standard temperature version
Supply voltage	24 V DC ± 20 %
Materials	
Material housing	Ductile cast iron EN-GJS 400
Material measuring unit	Steel 1.7139
Material O-rings	FKM
Bearing	Ball bearing