

Positive Displacement Flow Sensors

Positive displacement flow sensors, series VZ...S



- Highly accurate transmitters that measure volume flows of viscous liquids such as oil
- 7 different component sizes available
- Viscosity range: 1...100.000 mm²/s
- Various housing and seal materials provide a universal applicability with different measurement media
- Standard process connection via subplates, i.e. quickly exchangeable without longer process stops
- Flow proportional frequency output signal

Common technical data for all sizes

	VZ...GG-S	VZ...VA-S
Measuring accuracy	±0,3 % of measured value (at 21 mm ² /s)	
Repeatability	0,05 % for same conditions	
Operating pressure	VZ 0,025... to VZ 1... 400 bar VZ 3... to VZ 5... 315 bar higher pressure rating on request	
Temperature range	-30 °C ... +120 °C -30 °C ... +150 °C with thermally insulated preamplifier -30 °C ... +80 °C for Ex version	
Material	- housing - gear wheels - ball bearing	cast iron GGG 40 steel 1.7139 100CR6 / 1.3505
Seal material	Standard: FPM (VITON) Option: EPDM, FEP	
Process connection	via subplate with lateral female thread connection	
Subplate material	cast iron GGG 40	stainless steel 1.4404
Power supply	12...30 VDC / max. 90 mA	
Electrical connection	via standard socket	
Protection class	IP 65	
Output signal	2-channel, square wave, keying ratio 1:1, PNP	

Special technical data

Size	Start of gear wheel rotation [l/min]	Measuring range* [l/min]	Measuring volume [cm ³ /pulse]	Resolution [pulses/l]
VZ 0,025-S	0,001	0,008...2	0,025	40 000
VZ 0,04-S	0,004	0,02...4	0,04	25 000
VZ 0,2-S	0,01	0,16...16	0,245	4 081,63
VZ 0,4-S	0,01	0,2...40	0,4	2 500
VZ 1-S	0,02	0,4...80	1,036	965,25
VZ 3-S	0,03	0,6...160	3,000	333,33
VZ 5-S	0,04	1...250	5,222	191,50

* For media with high viscosity the measuring range is reduced.
The max. pressure drop shouldn't exceeded 16 bar (asked for pressure drop diagrams).