Positive displacement flow sensors | VZAL



VZ0.2AL



VZ2AL

Highlights

- Variety of sealing materials → Universally use for different measurement media
- Output signal: pulse signal

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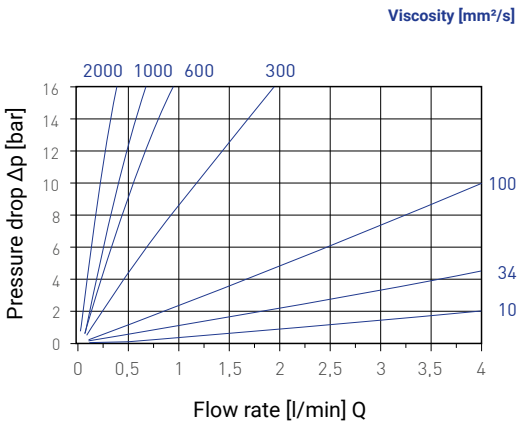
Technical data

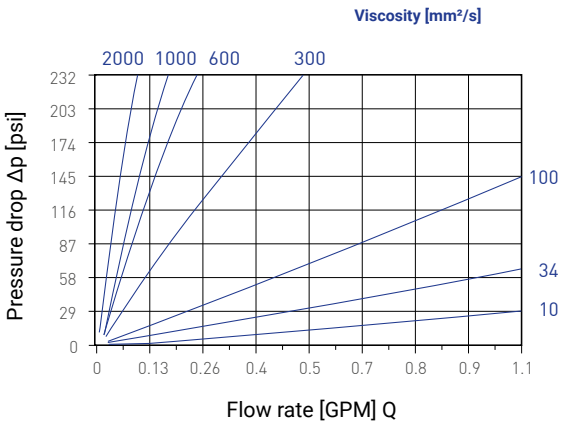
Technical data				
Type	**VZ0.04AL**	**VZ0.2AL**	**VZ2AL**	**VZ5AL**
Size	0.04	0.2	2	5
Process connection	G¼	G⅜	G¾	G 1
Measuring range [l/min]*	0.02...4	0.16...16	1...65	1...200
Measuring range [l/h]*	1.2...240	9.6...960	60...3,900	60...12,000
Measuring range [GPM]*	0.005...1.06	0.04...4.23	0.26...17.2	0.26...52.9
Measuring range [GPH]*	0.32...63.5	2.5...254	15.9...1,032	15.9...3,175
Geometric gear volume [cm³]	0.04	0.245	2	5.222
Measuring accuracy	±1 % of reading	±1 % of reading	±1 % of reading	±1 % of reading
Repeatability	Up to 0.5 % under same conditions			
Start of gear wheel rotation [l/min]	0.004	0.01	0.12	0.1
Start of gear wheel rotation [l/h]	0.24	0.6	7.2	6
Start of gear wheel rotation [GPM]	0.001	0.003	0.032	0.026
Start of gear wheel rotation [GPH]	0.06	0.16	1.9	1.59
Viscosity of medium	20...4000 mm²/s	20...4000 mm²/s	20...4000 mm²/s	20...4000 mm²/s
Medium temperature range	-10...80 °C (14...176 °F) integrated preamplifier 0...60 °C (32...140 °F) without preamplifier (for TD8250)			
Ambient temperature	-10...80 °C (14...176 °F)			
Maximum pressure rating	240 bar	200 bar	200 bar	100 bar
Maximum pressure rating	3481 psi	2901 psi	2901 psi	1450 psi
Indication	Cable socket with one LED for pulse signal	Cable socket with two LED for pulse signal (two channels)	Cable socket with one LED for pulse signal	Cable socket with one LED for pulse signal
Degree of protection EN 60529	IP65			
Weight [kg]	0.5	0.6	1.9	6
Weight [lb]	1.1	1.3	4.2	13.2
Output signals				
→ Puls rate [pulses/l]	25 000	4081.63	500	191.5
→ Puls rate [pulses/gallon]	94,636.00	15,450.77	1,892.72	724.90
→ Resolution [ml/pulse]	0.04	0.245	2	5.222
→ Signal shape	Pulse signal, squarewave, PNP, pulse duty ratio 1:1 ±15 %			
Electrical data				
Electrical connection	Plug connector incl. cable socket			
Power supply	12...30 V DC reverse polarity protection			
Power consumtion [short-circuit proof]	0.6 W	0.9 W	0.6 W	0.6 W

* For media with high viscosity the measuring range is reduced. The max. pressure drop shouldn't exceeded 16 bar (230 psi) (see pressure drop diagrams).

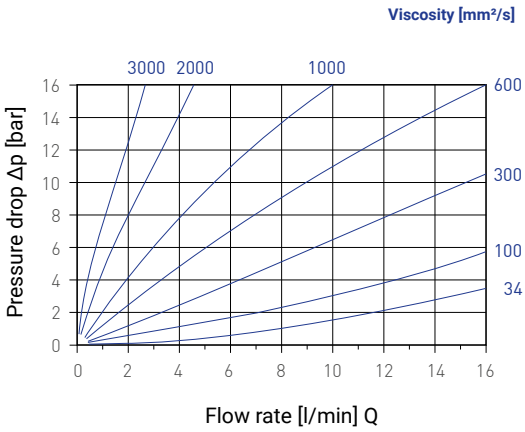
Typical pressure drop | VZ0.04AL | VZ0.2AL

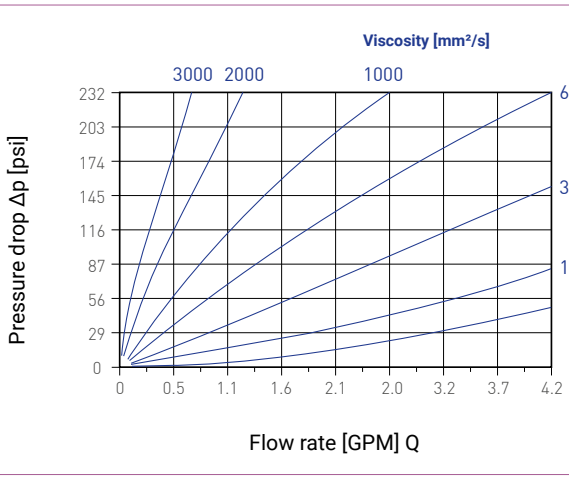
Typical pressure drop VZ0.04AL





Typical pressure drop VZ0.2AL

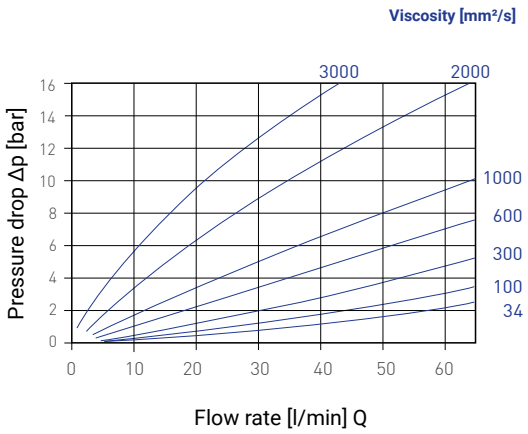


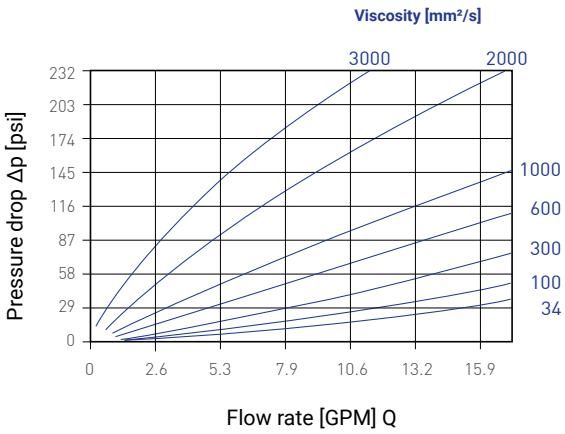


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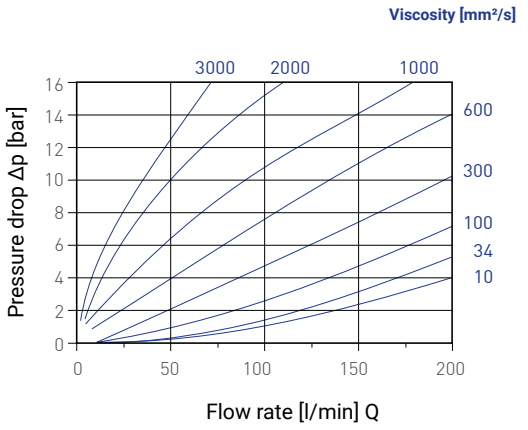
Typical pressure drop | VZ2AL | VZ5AL

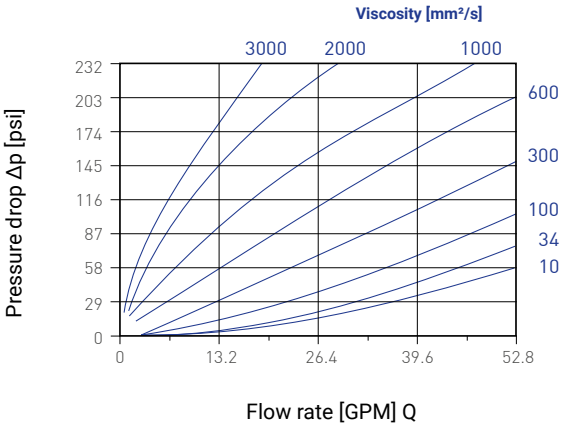
Typical pressure drop VZ2AL





Typical pressure drop VZ5AL

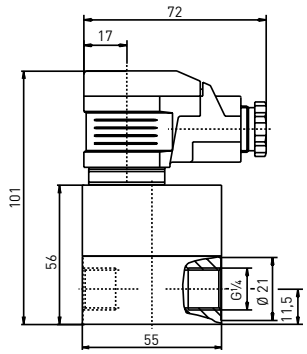




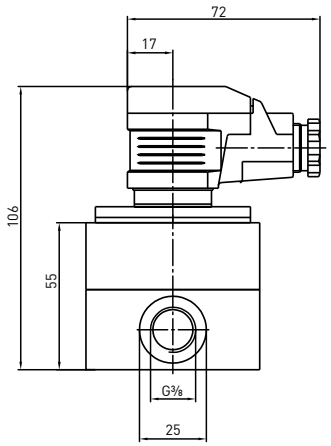
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Technical drawings

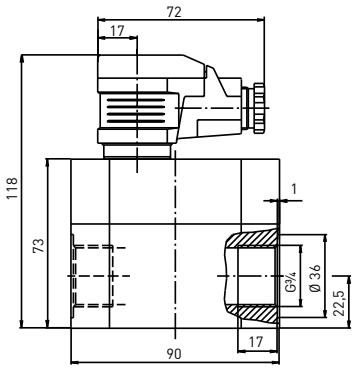
VZ0.04AL



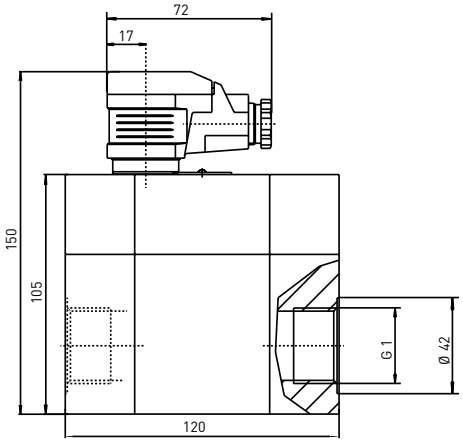
VZ0.2AL



VZ2AL



VZ5AL



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Materials

Materials				
Type	**VZ0.04AL**	**VZ0.2AL**	**VZ2AL**	**VZ5AL**
Housing	Aluminium, gold-colour anodised	Aluminium, gold-colour anodised	Aluminium AlMgSi F30 (hard coated)	Aluminium AlMgSi F30 (hard coated)
Gear wheels	Stainless steel 1.4462	Steel 1.7139	Steel1.7139	Steel 1.7139
Bearings	Ball bearings	Ball bearings stainless steel	Sleeve bearings (P10)	Ball bearings
Seals	FKM	FKM	FKM	FKM

Article numbers

Order code			
Type	**Size**		
VZ0.04AL	0.04	VZ004ALV31	
VZ0.2AL	0.2	VZ020ALV31	
VZ2AL	2	VZ200ALV31	
VZ5AL	5	VZ500ALV31	
Preamplifier			
Integrated			I00S
Without preamplifier (for TD8250)			K00S
Example order number		**VZ004ALV31**	**I00S**

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