

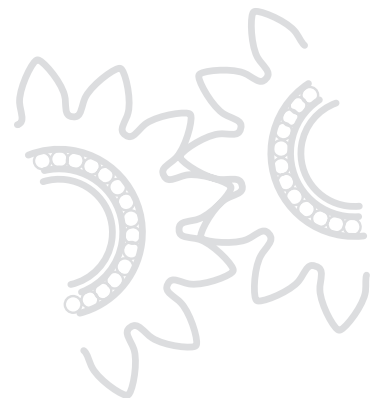


KOBOLD Flow- Measurement Technology

Order from: **C A Briggs Company**
622 Mary Street; Suite 101; Warminster, PA 18974
Phone: 267-673-8117 - 800-352-6265; Fax: 267-673-8118
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VEF series





▶ VEF-4240

▶ VEF-4220

▶ VEF-4209

▶ VEF-4207

▶ VEF-4204

Stainless Steel Flowmeter VEF Series

▶ Based on the same meshing gear principle as the ZDM series, the VEF sensor measures viscous media, however as in-line-device.

▶ An integrated, magnetoresistive pick-up with PNP or NPN-switching output produces per tooth one impulse with a worth of

0.04 cc for the size VEF-4204

0.1 cc for the size VEF-4207

0.4 cc for the size VEF-4209

2 cc for the size VEF-4220

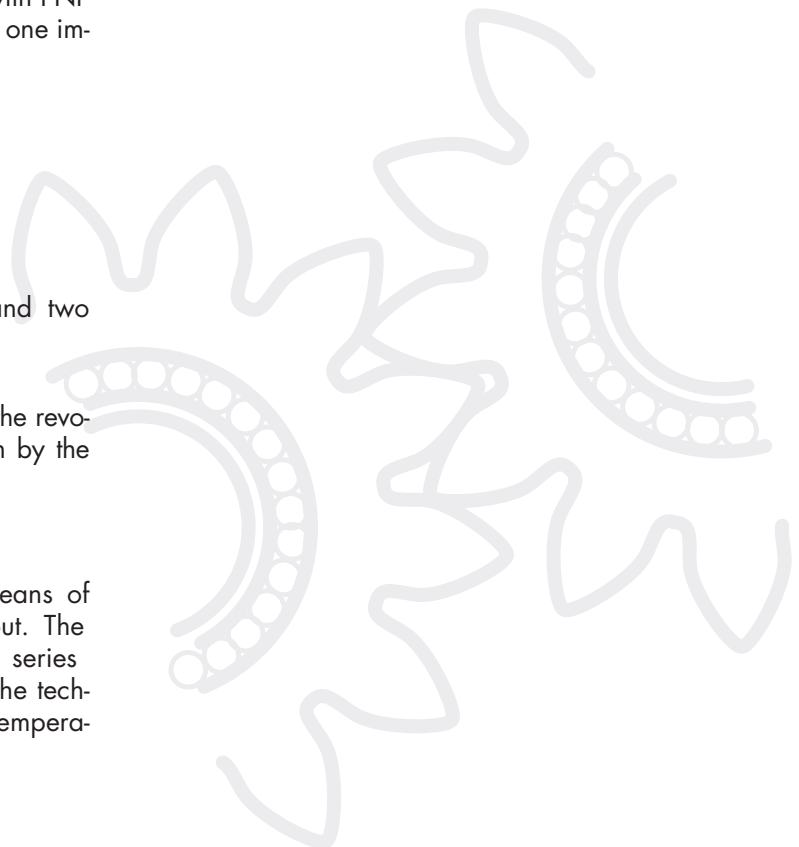
4 cc for the size VEF-4240

Option:

LCD-Flow display with analogue output and two limit values, mounted on the flowmeter.

▶ The impulse frequency is proportional to the revolutions of the gear wheels, which are driven by the volume stream.

▶ The impulse processing is made by means of KOBOLD or any other electronic readout. The VEF is a low-priced alternative to the ZDM series for application with lower requirements to the technical qualities such as accuracy, pressure, temperature, etc.

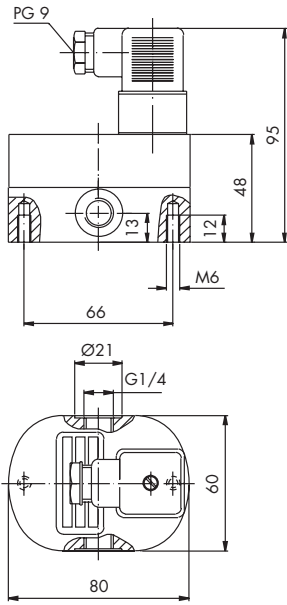


	VEF 4204	VEF 4207	VEF 4209	VEF 4220	VEF 4240
Flow range l/min	0.05.....4	0.1.....10	0.2.....30	0.5.....70	3.0.....150
Tooth-volume cm³/pulse	0,04	0,1	0,4	2,0	4,0
Frequency (Hz)	20,8 ... 1666.7	16,7 ... 1666.7	8,3 ... 1250.0	4,2 ... 583.3	12,5 ... 625.0
K-Factor (pulse/l)	aprox. 25 000	aprox. 10 000	aprox. 2 500	aprox. 500	aprox. 250
Accuracy at 21 mm²/s	2%	2%	2%	2%	3%
Viscosity range mm²/s	2 . . . 2000	2 . . . 2000	2 . . . 5000	2 . . . 7000	2 . . . 10000
Max. operating pressure	2900 PSI				
Medium temperature	32°F . . . 176 °F				
Mounting positions	unrestricted				
Filtering	20 µm	20 µm	50 µm	50 µm	100 µm
Side pipe-connection	1/4" NPT	3/8" NPT	1/2" NPT	3/4" NPT	1" NPT
Weight	c/f	c/f	c/f	c/f	c/f

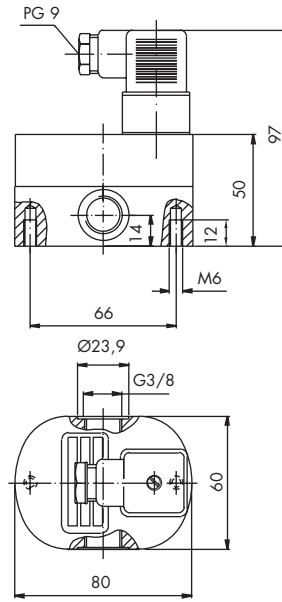
Materials

Body	Stainless steel			
Gear wheels	Stainless steel 1.4122		Stainless steel	
Wheel bearing	Ball bearing stainless steel		DU-sleeve bearing	Ball bearing or bronze-sleeve bearing
Seals	FPM (Standard), NBR, PTFE or EPDM (option)			

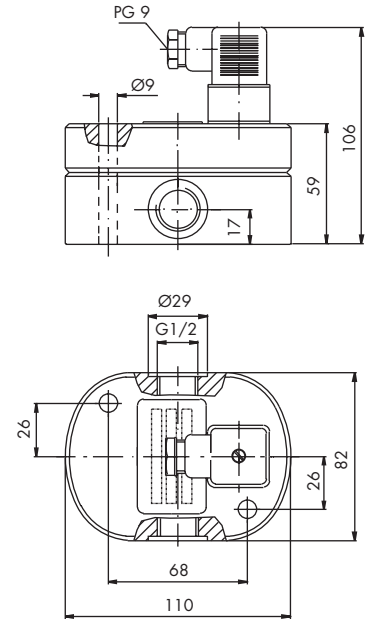
► VEF 4204



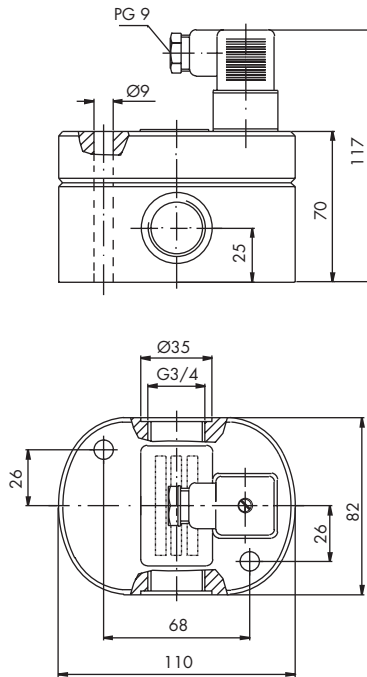
► VEF 4207



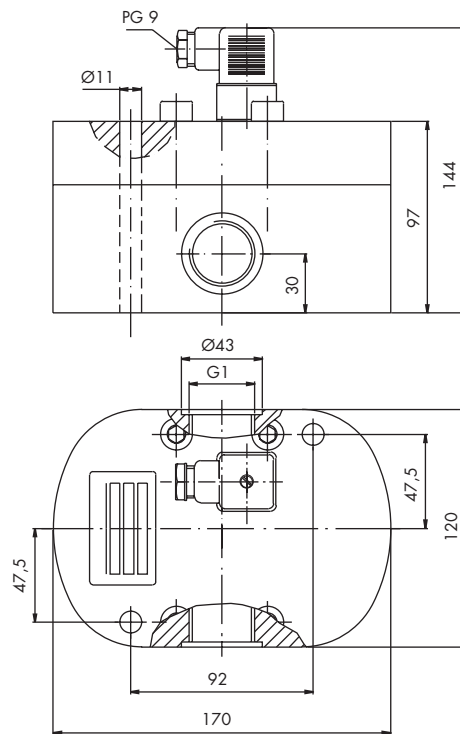
► VEF 4209



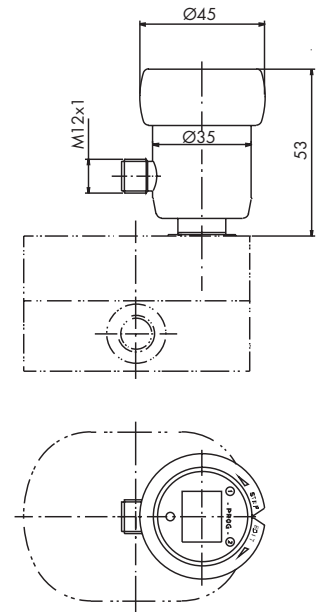
► VEF 4220



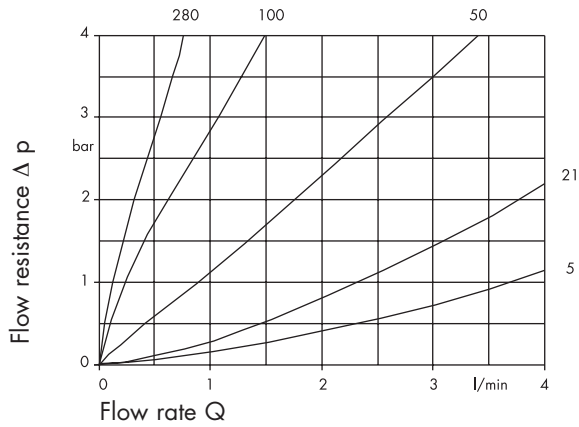
► VEF 4240



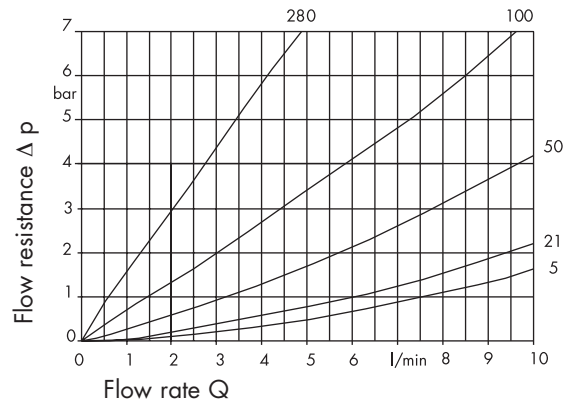
► LCD-Flowdisplay



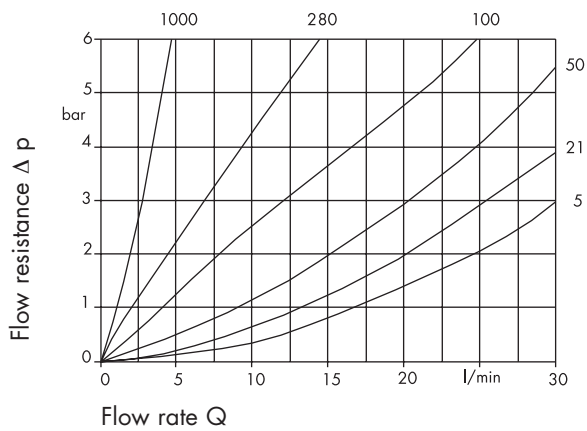
▶ VEF 4204



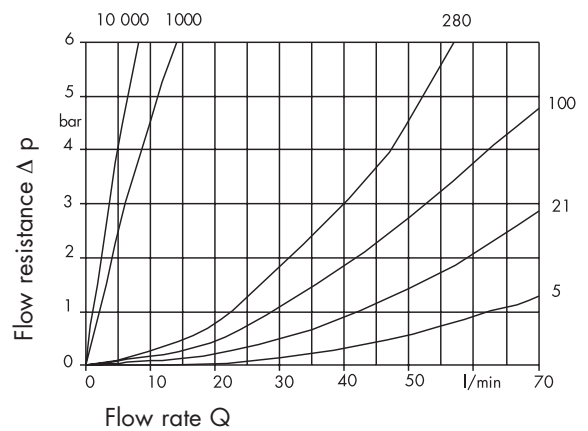
▶ VEF 4207



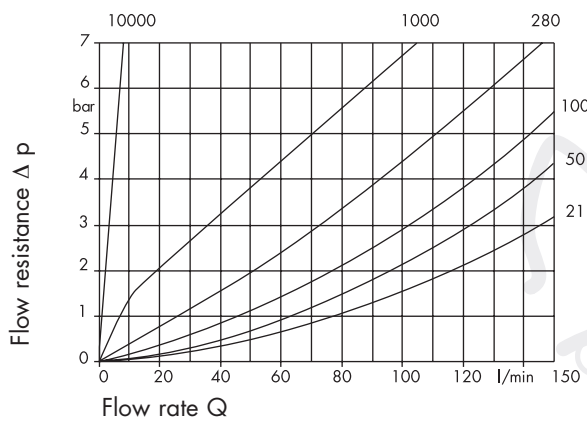
▶ VEF 4209



▶ VEF 4220



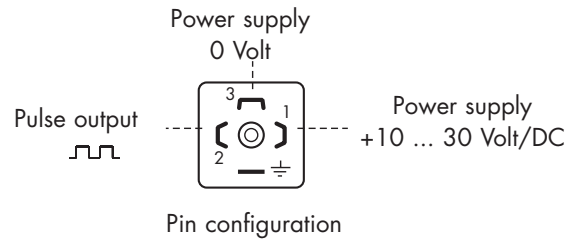
▶ VEF 4240



viscosity: mm²/s

▶ For trouble-free and safe operation of the flowmeters the correct choice of type and size is decisive. Due to the great number of different applications and flowmeter versions the technical data in the VEF catalogues are of general character. Certain characteristics of the devices depend on type, size and measuring range as well as on the medium to be measured. For exact flowmeter choice please contact KOBOLD.

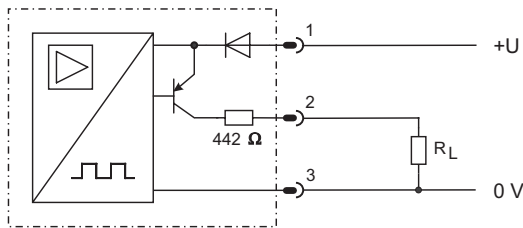
Standard: VEF Flowmeter, with pulse output



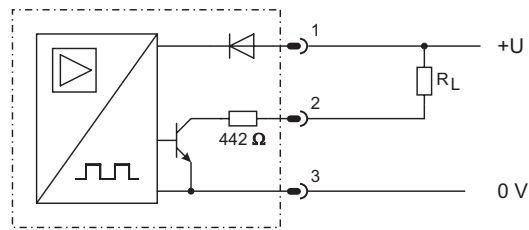
Description

The rotation of the flowmeter gear wheels is sensed by a non-contact magnetoresistive pickup, amplified and emitted as pulses. The passing of each individual gear tooth produces a pulse corresponding to a precise positively displaced measured volume. The pulse output can be produced as PNP or NPN signals. The frequency is proportional to the momentary flow.

Connection Diagram



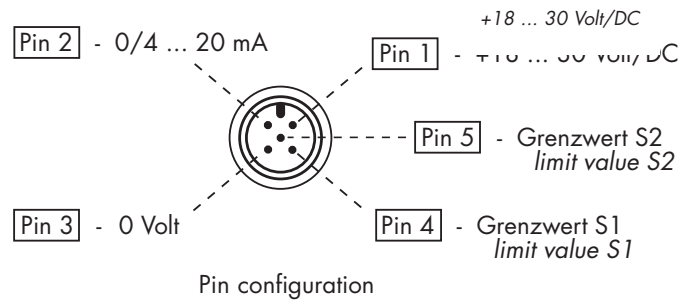
Pulse output - PNP version



Pulse output - NPN version

Power supply	10 ... 30 Volt/DC	
Power consumption	18 mA (no load)	
Puls output	Short-circuit-proof, (internal protective resistor 442 Ω) Rechtecksignale, 0 ... 1667 Hz, je nach Volumensensortyp Square wave signal, 0 ... 1667 Hz, because of type flowmeter	
Temperature range	0 ... +80° C	
Electrical connection	Square connector Cable gland Pg9	according to DIN EN 175301-803-A Cable diameter 6 - 8 mm Wire gauge max. 1,5 mm ²
Protection class	IP 65 (with mounted connection plug)	
Material	PA 6 (UL 94 HB) NBR-seals	

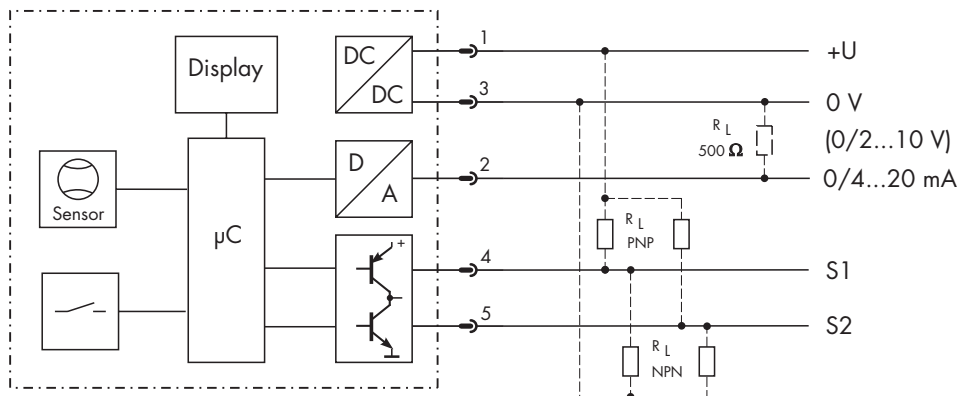
Option: LCD-Flow Display for VEF, with analogue output and two limit values



► Description

The programmable flow display evaluates the pulses from the magnetoresistive pickup and shows the chosen units on a backlit LCD-display. Alarm and condition reports are signalled in the display by a red LED with additional text. The measured values are transmitted by means of an analogue output, 0 or 4 ... 20 mA, and 0 or 2 ... 10 Volt by means of a resistor (500 Ohm). The limit values are signalled through two transistor switching outputs.

► Connection Diagram



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