KRACHT

Volume counter VCA 0,2 FA R1

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Principle of operation

The measuring unit of the KRACHT Volume counter consists of a pair of gears, driven by the liquid flow on the principle of a gear motor. The plain bearings provide both axial and radial support to the gears. The movement of the gears is sampled without contact by means of a sensor located in the cover.

Typical applications

Consumption measurement
Controlling of metering processes
Monitoring of lubrication systems

Materials

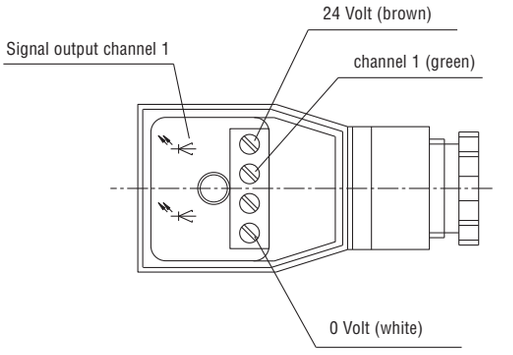
Housing:	Aluminium
Gears:	Steel
Bearing:	Plastic plain bearings

General characteristics

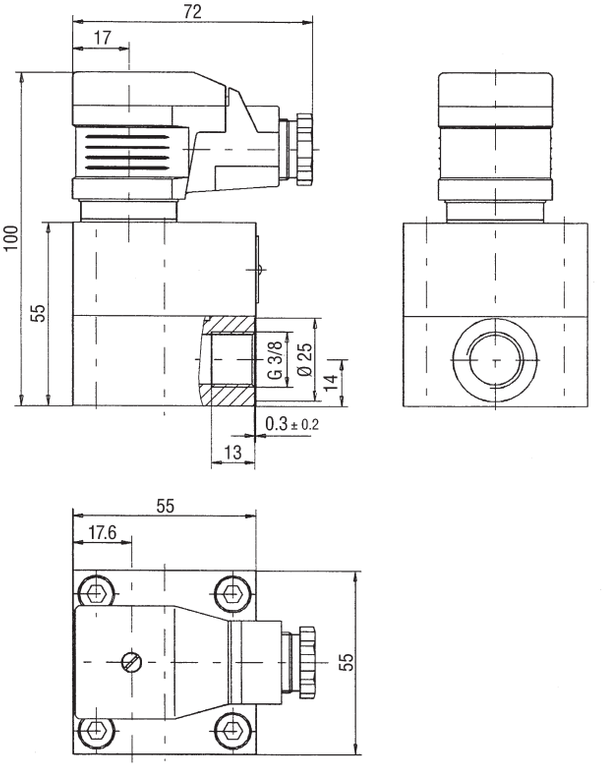
Geometric tooth volume	V_{gZ}	=	0.2 cm^3
Max. operating pressure	p_{max}	=	160 bar
Peak pressure	$\hat{p}$	=	200 bar
Measuring range	Q	=	0.25...10 l/min
Liquid temperature	ϑ_m	=	-10 ... +80 °C
Viscosity	ν_{min}	=	20 mm^2/s
	ν_{max}	=	4000 mm^2/s higher viscosities on request
Flow resistance	Δp	=	see flow resistance curve
Sound pressure level	L_A	=	< 60 dB (A)
Measuring accuracy			+/- 3 % at flow range of Q = 0.25...10 l/min

Electrical characteristics

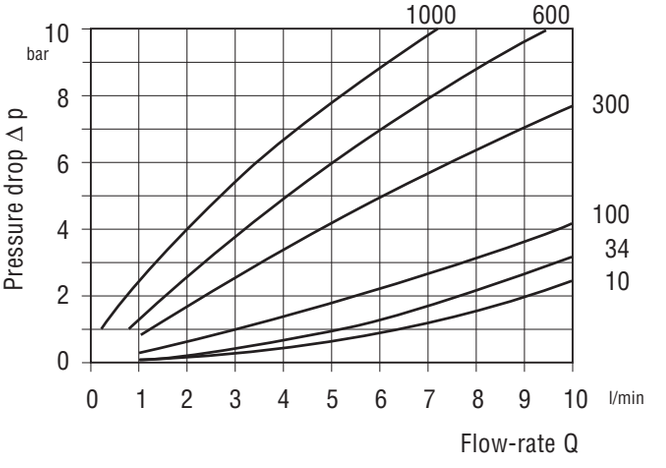
Number of measuring channels			1
Operating voltage	U_B	=	12...30 V DC polarized
Pulse amplitude	U_A	=	≥ 0.8 U_B
Pulse shape with symm. output signal			square wave pulse duty factor/channel1:1 +/-15%
Power requirement	P_{bmax}	=	0.6 W
Output power channel	P_{amax}	=	0.3 W short-circuit-proof
Degree of protection std.			IP 65 DIN 40050



Dimensions



Flow resistance Parameter: Viscosity (mm^2/s)



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