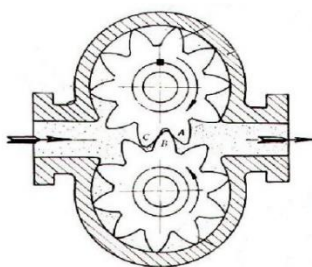


KGF100 Series Gear Flow Meter

Introduction

Gear flow transmitter belongs to a kind of volumetric flow transmitter and can be used for measuring volume and flow precisely. The flowing medium makes the gear engage and rotate. Under the flowing effect of fluid, pressure difference is formed between the inlet and outlet of instrument. One pair of gears can rotate freely without the need of power supply. The empty cavity between gears is filled with liquid, which is discharged through rotation. The liquid flowing through instrument and liquid flow can be known through measuring the number of revolutions of gear.



The rotation speed of the transmitter is detected by the sensing coil inside the signal amplifier on the case. The signal amplifier cannot contact the measured medium. The magnetic line of force generated inside the permanent magnet inside the case due to transmitter gear cutting will lead to flux change inside the sensing coil. The sensing coil sends the signal of flux change cycle detected to the pre-amplifier to amplify and shape the signal. The impulse signal which is in direct ratio with flow velocity will be sent to the unit conversion and flow integration circuit to obtain and display the accumulative flow value. At the same time, it will also send the impulse signal to frequency current conversion circuit to convert the impulse signal to simulation amperage to display the instantaneous flow value.

The transmitter has high processing precision and can be installed precisely. The gear rotation undergoes non-contact scanning. One impulse is generated by one gear with very high resolution. The column gear transmission can measure the liquid with very small flow and small quantitative volume.

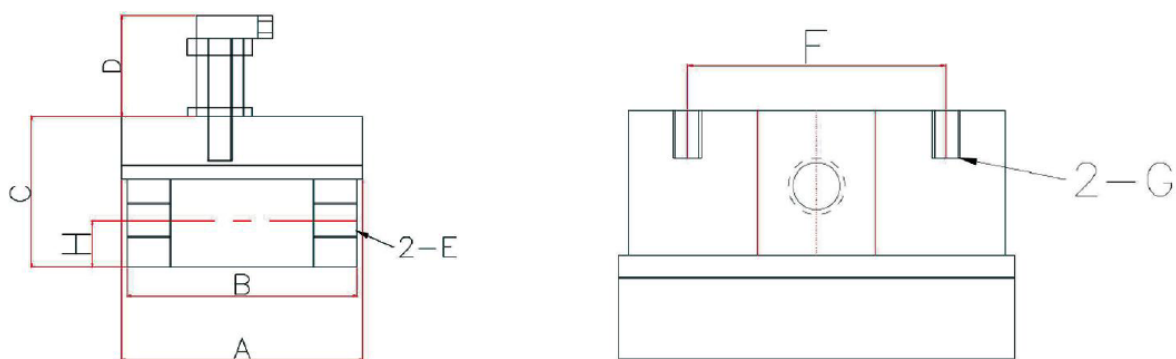
Application

- Measurement of resin and glue
- Measurement of hydraulic oil, lubricating oil and grease
- Measurement of fuel oil
- Measurement of printing ink and asphalt
- Measurement of liquid nitrogen, refrigerant, and solvent
- Measurement of edible oil, fish oil and food canning
- Fluid quantitative control system

Features

- Support pulse, 4-20ma and RS485 output
- High voltage resistance (1.0-45MPa)
- High and low temperature resistance (-196℃-170℃)
- Able to measure different kinds of viscous media.
- High precision and repeatability
- Range ratio width (1: 100)
- Broad range of measurement
- Strong corrosion and pollutant resistance (acid and alkaline)

Dimension



Unit: mm

Model	A	B	C	D	E	F	G
KGF102	Φ83	80	50	70	G1/4	40	M6
KGF104	Φ83	80	50	70	G1/4	55	M6
KGF106	Φ83	80	62	70	G1/2	55	M6
KGF110	Φ83	80	62	70	G1/2	55	M6
KGF115	Φ113	110	62	70	G3/4	90	,M6
KGF125	Φ158	140	85	70	G1	110	M8
KGF132	Φ218	160	100	70	M35*1.5	180	M8

The sizes are above are for the standard products. Customization is acceptable.

Parameter

Model	Range of Measurement L/H	K Coefficient P/L	Max. Pressure (Bar)		Temp. (°C)	Accuracy	Interface	Pipe Size
			Aluminum Alloy	Stainless Steel				
KGF102	0.6-50	11200	150	400	-15-80	+/- 0.5% (Range: 1: 10)	G1/4	DN6
KGF104	5-250	4780	150	400	-15-80		G3/8	DN10
KGF106	10-500	3468	150	400	-15-80		G1/2	DN15
KGF110	50-1200	2780	150	400	-15-80		G1/2	DN15
KGF115	200-3000	334	150	400	-15-80	+/- 1.0% (Range: 1:100)	G3/4	DN20
KGF125	1000-12000	59.9	150	400	-15-80		G1	DN25
KGF132	2000-20000	39.9	150	400	-15-80		G1-1/4	DN32

Connection



thread connection



quick clamp connection



ferrule connection

Ordering information

Model	Sealing	Connection	Singal Output	Material	Other
KGF102	F: FKM	1: thread	P: pulse output	1: stainless steel	P: High pressure
KGF104	P: PP	2: flange	I: 4-20mA	2: Aluminum alloy	T: High Temp.
KGF106		3: sanitary flange	RS: RS485	3: PP	
KGF110		4: ferrule			
KGF115					
KGF125					
KGF132					