Impeller Flowmeter DHGF-10

Method of operation

The flowmeter utilizes an impeller fitted with permanent magnets. Liquids flowing through the unit will cause the impeller to rotate. The speed at which the impeller rotates is, over a wide range, proportional to the amount of liquid passing through the unit, which allows accurate determination of the flow rate.
The impeller rpm is detected by means of a Hall-Sensor.

Range of application

Measuring and monitoring of liquids within a viscosity range of 1 – 10 cSt.

Applicability:
– constructional engineering
– laboratories
– chemical industry

Measuring range

DHGF- 10: 30 – 1000 l/h

Special features

– high degree of reliability
– highly accurate
– threaded connection
– high chemical resistance (ECTFE model)

Mounting position

The units function in any mounting position and allows maximum flexibility in system integration. Optimum de-aeration is achieved when the unit is mounted vertically. Ensure correct direction of flow at installation.

Maintenance requirements

The flowmeter requires low maintenance. However, the system should be purged and cleaned of impurities at regular intervals. This is especially important, should metal particles contaminate the system, as they will adhere to the permanent magnets on the impeller and may cause inaccurate readings and irreparable damage.

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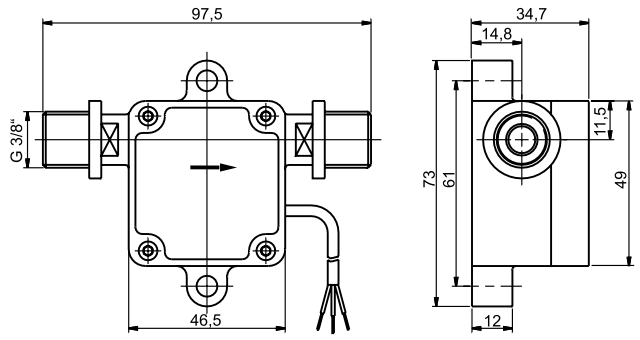
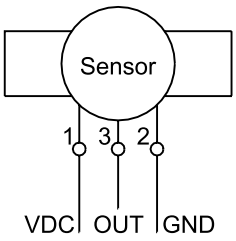
Dimension Outline Drawing DHGF - 10



Wiring diagram

Operating voltage 4,5 – 24 VDC

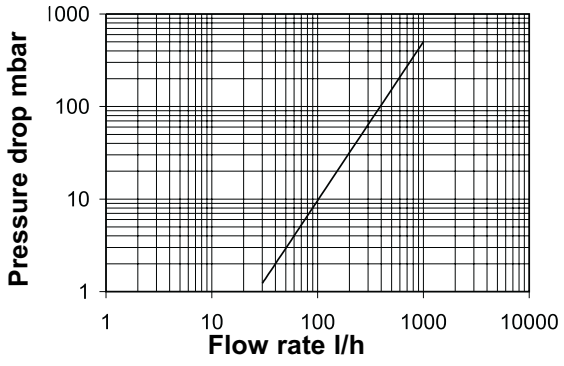
1 VDC white
2 GND brown
3 Out green



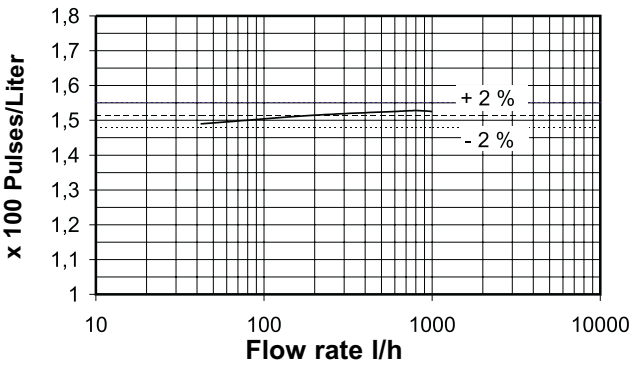
Operating data:	**DHGF - 10 POM**	**DHGF - 10 ECTFE**
Range:	30 - 1000 l/h	
Viscosity range:	1 - 10 cSt	
Accuracy of measurement:	± 2% of rate	
Repeatability:	± 0,8% of rate	
Max. operating pressure:	5 bar	
Bursting pressure (at 22°C):	8 bar	
Operating temperature:	-10 to +80°C *	
Protection class:	IP65	
Signal output:	square wave (push-pull output stage)	
Max. current output (at 24V):	11 mA	
Voltage requirement:	4,5 - 24VDC	
Connecting cable (1m):	3 x 0,14 mm² LIYY	
Sensor housing:	POM	ECTFE
Impeller:	POM	ECTFE
Axle and bearing:	NIVAPOINT / POM	ceramics / ceramics
Magnets:	sinter/ceramics-encapsulated	sinter/ceramics-encapsulated
O-Rings:	FKM / EPDM	
Weight:	approx. 80 g	
Connections:	G 3/8"	

* Specials up to 100°C on request

Pressure drop diagram



Pulse characteristics curve



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