

Impeller Flowmeter DHGF-30 & DHGF-50



Method of operation

The flowmeters utilize impellers fitted with permanent magnets. Liquids flowing through the units 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- 30: 30 – 3000 l/h
DHGF- 50: 50 – 5000 l/h

Special features

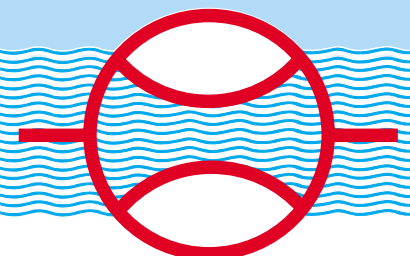
- high degree of reliability
- highly accurate
- threaded connection
- solid brass construction
- chemically nickel plated (optional)

Mounting position

The unit must be installed horizontally (plug facing up). Ensure correct direction of flow at installation.

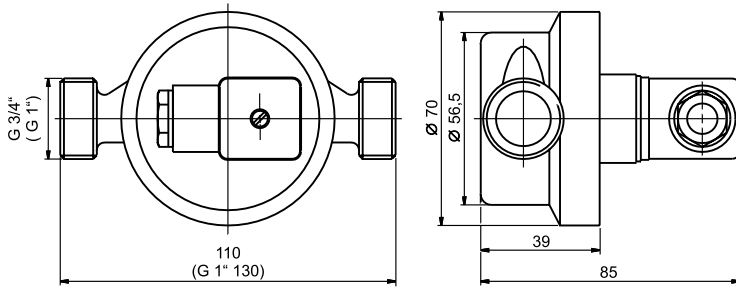
Maintenance requirements

The flowmeters require 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.

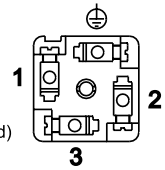


Installation diagram for DHGF - 30 and DHGF - 50

Wiring diagram



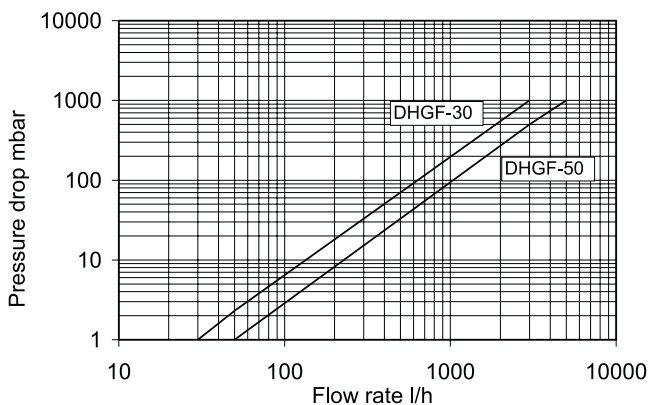
1 = signal
 2 = + 4,5 - 24 VDC
 3 = GND
 ⊕ = N. C. (Not connected)



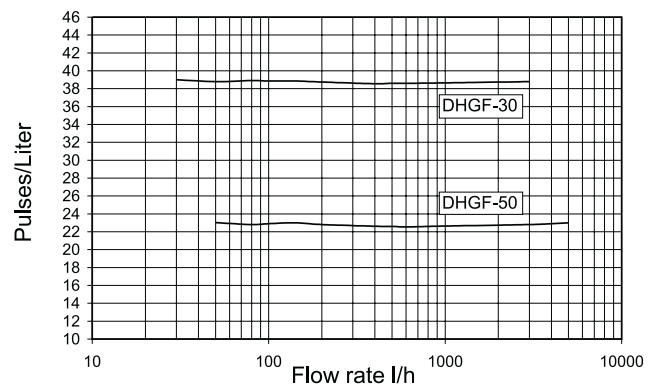
Operating data:	DHGF - 30	DHGF - 50
Range:	30 – 3000 l/h	50 – 5000 l/h
Viscosity range:	1 – 10 cSt	1 – 10 cSt
Accuracy of measurement:	±3 % of rate	±3 % of rate
Repeatability:	±1 % of rate	±1 % of rate
Max. operating pressure:	10 bar	10 bar
Bursting pressure (at 22 °C):	16 bar	16 bar
Operating temperature:	0 °C to +90 °C	0 °C to +90 °C
Protection class:	plug in: IP 54 / cable (optional): IP 65	plug in: IP 54 / cable (optional): IP 65
Signal output:	square wave	square wave
(Pulse frequency):	38,785 pulses / l	22,783 pulses / l
Max. current output (at 24 V):	11 mA *	11 mA *
Voltage requirement:	4,5 – 24 VDC	4,5 – 24 VDC
Connecting plug:	DIN 43650	DIN 43650
Sensor housing:	brass, optional: chemically nickel plated	brass, optional: chemically nickel plated
Impeller:	Polyoxymethylen	Polyoxymethylen
Axle and bearing:	nickel alloy / glass (point bearing with centering ring)	
Magnets:	sinter / ceramics	sinter / ceramics
O-Rings (selective):	NBR / FKM	NBR / FKM
Weight:	approx. 600 g	approx. 600 g
Connections:	G 3/4"	G 1"

* at temperatures < 60 °C: 15 mA

Pressure drop diagram



Pulse characteristics curve



technical changes and amendments

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