

# Impeller Flowmeter DHSF-2 and DHSF-4



## 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

DHSF- 2: 1,5 – 200 l/h

DHSF- 4: 6 – 400 l/h

## Special features

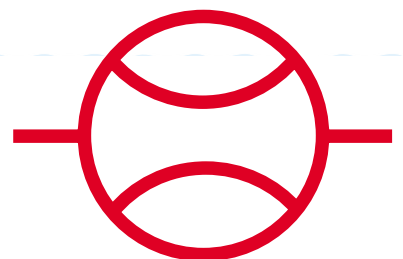
- high degree of reliability
- highly accurate
- hose connection

## Mounting position

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

## Maintenance requirements

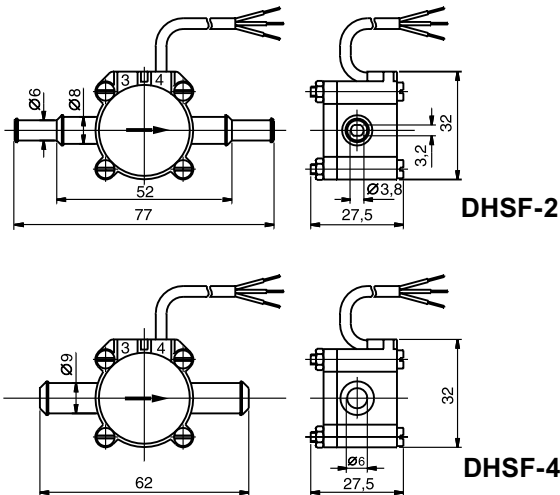
The flowmeters require low maintenance. However, the system should be purged and cleaned of impurities at regular intervals. This is especially important, should metal particles contaminate the system, as they will adhere to the permanent magnets on the impeller and may cause inaccurate readings and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



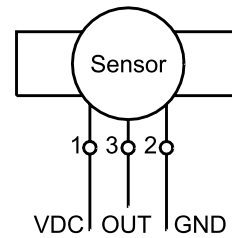
## Dimension Outline Drawing DHSF-2 und DHSF-4

## Wiring diagram

Operating voltage 4,5 – 24 VDC

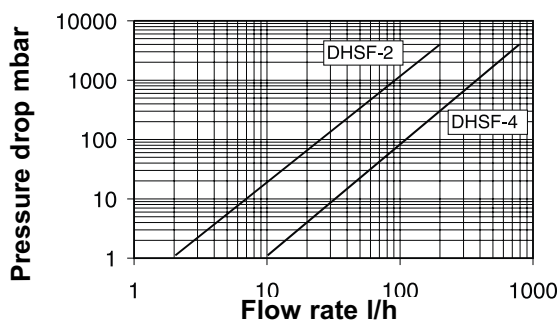


1 VDC white  
2 GND brown  
3 Out green

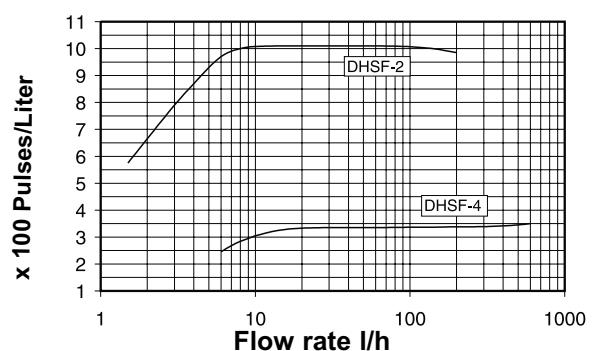


Operating data:	DHSF - 2 POM	DHSF - 4 POM
Range:	1,5 - 100 l/h	6 - 250 l/h
Viscosity range:	1 - 10 cSt	1 - 10 cSt
Accuracy of measurement:	± 2% of rate	
Repeatability:	± 0,8% of rate	
Max. operating pressure:	10 bar	
Bursting pressure (at 22°C):	15 bar	
Operating temperature:	- 10 bis + 80°C	
Protection 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	
Impeller:	POM	
Axle and bearing:	NIVAPOINT / POM	NIVAPOINT / ruby
Magnets:	sinter / ceramics	
O-Rings:	FKM / EPDM	FKM / EPDM
Weight:	approx. 45 g	
Hose connection:	6 / 8 mm	9 mm

Pressure drop diagram



Pulse characteristics curve



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