

# Impeller Flowmeter



## DHSF-2 DHSF-4



### Function

The flowmeters type DHSF-2 and DHSF-4 are impeller flowmeters.

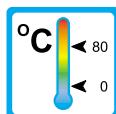


#### Application

The impeller flowmeters type DHSF-2 and DHSF-4 are employed to measure volume flow of liquids.

Areas of application:

- Mechanical Engineering
- Chemical Industry
- Research and Development



#### Features

The series proves itself through reliable function and easy handling. Further characteristics of this model are:

- Universal mounting
- High accuracy
- Hose connection

#### Installation hints

The installation of the flowmeter can be done in any way in the system. The optimum deaeration will be achieved with vertical mounting. The flow direction must be observed.

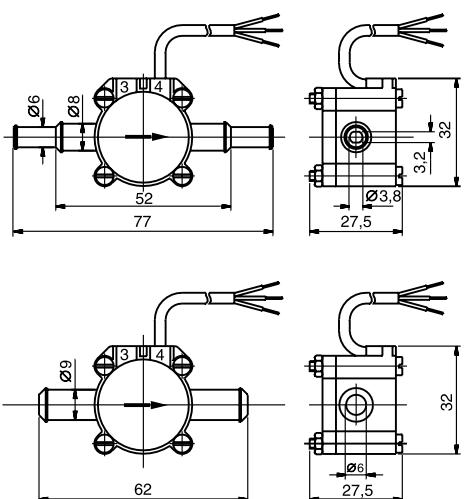
The flowmeter must not be used as a supporting part in a pipe construction.

The liquid must not contain any solids.

External magnetic fields influence the measurement. Keep sufficient distance to magnetic fields (e.g. electromotors).

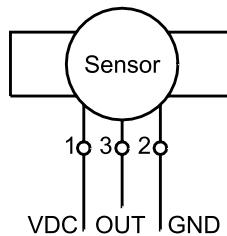


## Ranges, Technical data



**Connection diagram**

1 VDC white  
2 GND brown  
3 OUT green



| Operating data                 | DHSF-2  | DHSF-4      |
|--------------------------------|---|-------------|
| Flow range ( $H_2O$ at 22 °C): | 1,5 - 100 l/h   | 6 - 250 l/h |
| Sensing principle:             | Hall-effect, touchless                                    |             |
| Viscosity range:               | 1 - 10 cSt  |             |
| Accuracy:                      | ± 2 % from scale value (at same operating conditions)     |             |
| Repeatability:                 | < ± 0,8 % from scale value (at same operating conditions) |             |
| Max. operating pressure:       | 6 bar   |             |
| Burst pressure (at 22 °C):     | >15 bar   |             |
| Operating temperature:         | 0° C to +80 °C  |             |
| Ingress protection:            | IP65  |             |
| Output signal:                 | square wave (push-pull output stage)                      |             |
| Max. output current (at 24 V): | 11 mA   |             |
| Power supply:                  | 4,5 - 24 VDC  |             |
| Connection cable (1 m):        | Round cable 3 x 0,14 mm² LIYY                             |             |

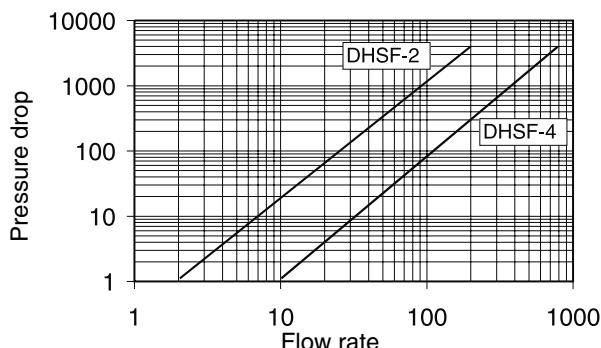
| Materials  | POM-Version                           |
|--|---------------------------------------|
| Housing:   | POM                                   |
| Impeller:  | POM                                   |
| Bearing (spigot bearing)<br>for DHSF-2 (axle / bearing): | Corepoint® / POM                      |
| for DHSF-4 (axle / bearing):                             | Corepoint® / POM                      |
| Magnets:   | sinter ceramic                        |
| O-Rings:   | FKM or EPDM *                         |
| Weight:  | approx. 45 g                          |
| Process connection:                                      | 6 mm / 8 mm hose connection on DHSF-2 |
|  | 9 mm hose connection on DHSF-4        |

\* FKM: green colourcode

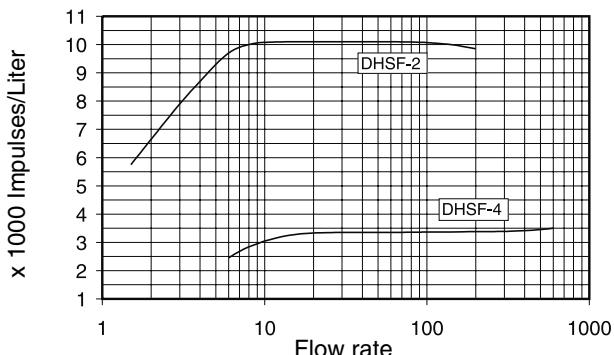
EPDM: black colourcode

KALREZ (optional): white colourcode

**Pressure drop diagram**



**Pulse curve**



DHSF-2/4 2 0003 09-06 EM



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