

Impeller Flowmeter DIGA-10



Method of operation

This 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 sensed inductively.

Flowmeters of Type DIGA-10 generate a 4 – 20 mA electric current by means of integrated electronics.

Range of application

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

Applicability:

- constructional engineering
- laboratories
- chemical industry

Measuring range

DIGA-10: 30 – 1000 l/h

Special features

- high degree of reliability
- highly accurate
- high chemical resistance
- signal output 4 – 20 mA

Mounting position

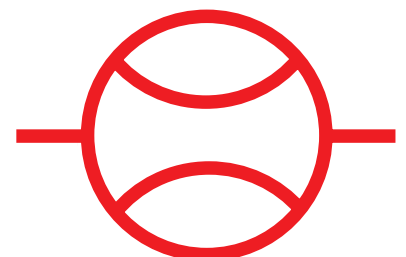
The units function in any mounting position and allows maximum flexibility in system integration.

Optimum de-aeration is achieved when the unit is mounted vertically.

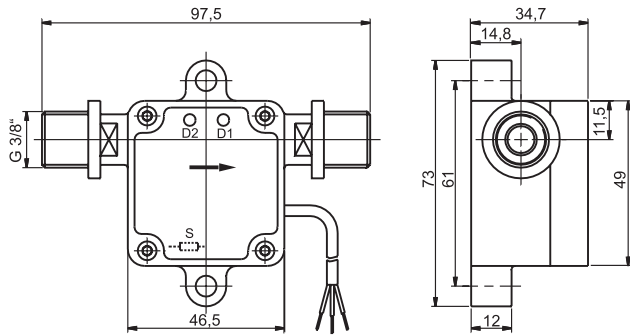
Ensure correct direction of flow at installation.

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.

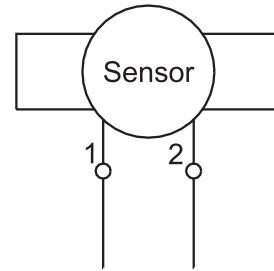


Installation diagram for DIGA - 10



Wiring diagram

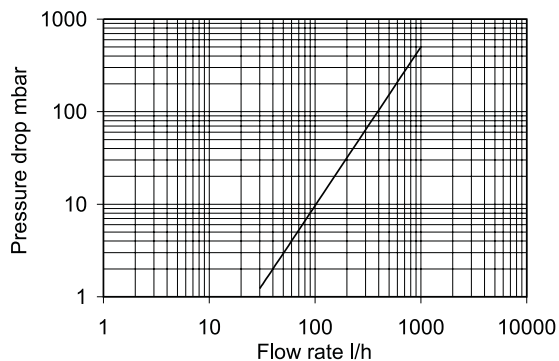
1 white
2 brown



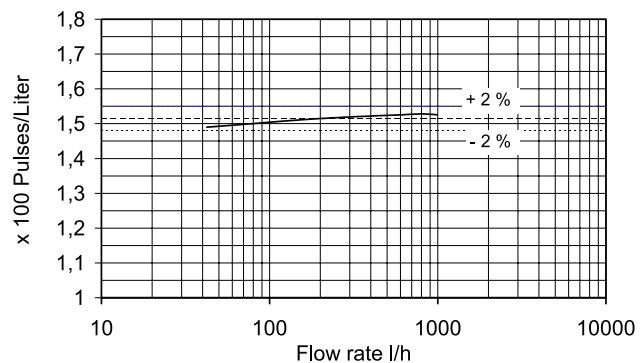
Operating data:	DIGA - 10 ECTFE
Range:	30 – 1000 l/h
Viscosity range:	1 – 10 cSt
Accuracy of measurement:	±2 % of rate
Repeatability:	±0,8 % of rate
Max. operating pressure:	5 bar
Bursting pressure (at 22 °C):	8 bar
Operating temperature:	-10 °C to +55 °C *
Protection class:	IP 65
Signal output:	4 – 20 mA dependent on flowrate The limiting values for 4 and 20 mA are adjustable by means of a magnetic pointer.
Voltage requirement:	12 – 24 VDC arranged in series in the 4 – 20 mA measuring circuit current consumption < 4 mA at 100 % duration of voltage application
Electrical connection:	selectable
Sensor housing:	ECTFE
Impeller:	ECTFE
Axle and bearing:	sapphire / sapphire ceramics / ceramics **
Magnets:	ECTFE-encapsulated
O-Rings (selective):	FKM / EPDM ***
Weight::	approx. 80 g
Connections:	G 3/8"

* Special design up to 100 °C upon request; ** at flowrate > 500 l/h; *** optional KALREZ

Pressure drop diagram



Pulse characteristics curve



technical changes and amendments reserved

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