

Turbine Wheel Flow Meter

for liquids



measuring

monitoring

analysing

SFL



Model: ADI-1..



- Measuring range:0.5-20 l/min water
- Measuring accuracy: ± 1% of full scale
- \bullet p_{max}: 250 bar; t_{max}: 90 °C
- Viscosity range: low viscosity
- Connection: G¾
- Materials: 1.4305, PVDF
- Output: pulses
- Negligible wear
- Medium: infrared light transmissivity



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KOBOLD Messring GmbH Nordring 22-24 D-65719 Hofheim/Ts.

www.kobold.com

Head Office: +49(0)6192 299-0 +49(0)6192 23398 info.de@kobold.com



Usage

The model SFL low volume flow meter is particularly suitable for service with liquids free from solids.

The liquids must be transmissive for infrared light (for example: water, oil, chemicals).

The plastic or stainless steel material combination allows service with aggressive media.

Applications

- Low-viscosity liquids (solids < 20 μm)
- Ideal system for filling plants (food and drinks industry)
- Volume batching, for example chemicals (with an external batching device)
- Aggressive media

Method of Operation

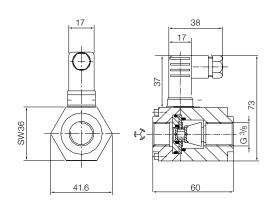
The forced medium causes the turbine wheel to rotate. Housing geometry, light-weight turbine wheel and radial flowing liquid ensure that the rotor floats.

A suspended rotor ensures a long service life. The motion of the turbine wheel is sensed in a non-contacting manner with infrared diodes and converted to impulses.

This output signal is linear and proportional to the volumetric flow. The flow meter may be installed in any position.

Dimensions

Model: SFL-1220 R10



Technical Details

Reaction value: approx. 0,08 l/min

Max. medium temp.: -20...+90 °C

Max. operating pressure: 16 bar (SFL-13)
250 bar (SFL-12)

 $\begin{array}{lll} \mbox{Measuring accuracy:} & \pm 1 \, \% \mbox{ of full scale} \\ \mbox{Repeatability:} & \pm 0.3 \, \% \mbox{ of reading} \\ \mbox{Interchangeability:} & \pm 2.5 \, \% \mbox{ of reading} \\ \mbox{Power supply:} & 5 \dots 24 \, V_{DC} \mbox{ (12 \dots 24 mA)} \\ \mbox{Output signal:} & \mbox{pulses approx. 50 \dots 2100 Hz} \end{array}$

(square)

K factor: 6250 pulses/liters

Materials: PVDF case and Vectra rotor or

stainless steel 1.4305 (case)

and Vectra rotor
O-ring FPM(SFL-12) or
EPDM (SFL-13)

Mechanical connection: G% male or

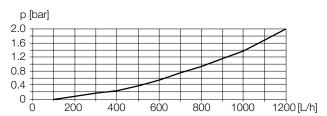
G% female (stainless steel only)

Electrical connection: 3-core ribbon cable

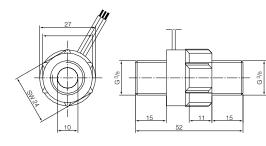
(approx.15 cm) encapsulated in

the case (SFL-13) Hirschmann connector GDSN207 (SFL-12)

Pressure Loss



Model: SFL-1320 R10



Order Details (Example: SFL-1220R10)

Model	Material, housing/rotor	Connection	Measuring range I/min water	Pulse rate (approx.)	t _{max}	p _{max}
SFL-1220 R10	1.4305/Vectra	G% female	0,520	6100 pulses/l	-20+90°C	250 bar
SFL-1320 R10	PVDF/Vectra	G% male	0,520	5400 - 6100 pulses/l	-20+90°C	16 bar

Digital indicators and transducers see under accessories.

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