



Turbine Wheel Flow Meter for liquids



measuring
•
monitoring
•
analysing

SFL



Model: ADI-1..



Model: SFL-1220R10

- Measuring range:
0.5 - 20 l/min water
- Measuring accuracy:
 $\pm 1\%$ of full scale
- p_{\max} : 250 bar; t_{\max} : 90 °C
- Viscosity range:
low viscosity
- Connection: G $\frac{3}{8}$
- Materials:
1.4305, PVDF
- Output: pulses
- Negligible wear
- Medium: infrared light transmissivity



S4

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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

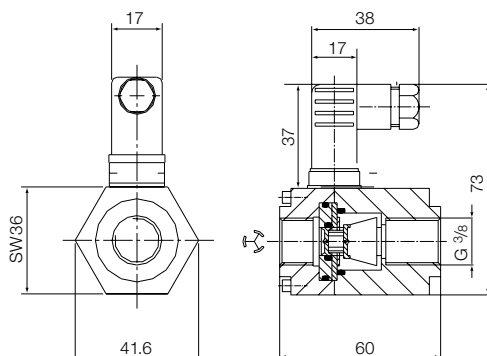
The forced medium causes the turbine wheel to rotate. Housing geometry, light-weight turbine wheel and radial flowing liquid ensure that the rotor floats. A suspended rotor ensures a long service life. The motion of the turbine wheel is sensed in a non-contacting manner with infrared diodes and converted to impulses. This output signal is linear and proportional to the volumetric flow. The flow meter may be installed in any position.

Technical Details

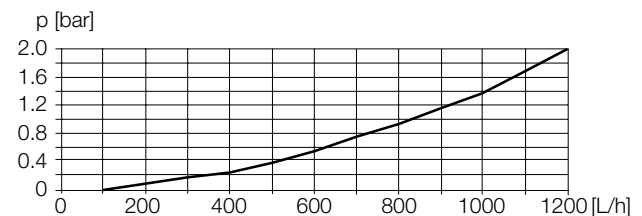
| | |
|--------------------------|---|
| Reaction value: | approx. 0,08 l/min |
| Max. medium temp.: | -20...+90 °C |
| Max. operating pressure: | 16 bar (SFL-13) 250 bar (SFL-12) |
| Measuring accuracy: | ±1 % of full scale |
| Repeatability: | ±0.3 % of reading |
| Interchangeability: | ±2.5 % of reading |
| Power supply: | 5...24 V _{DC} (12...24 mA) |
| Output signal: | pulses approx. 50...2100 Hz (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 $\frac{3}{8}$ male or G $\frac{3}{8}$ female (stainless steel only) |
| Electrical connection: | 3-core ribbon cable (approx. 15 cm) encapsulated in the case (SFL-13) Hirschmann connector GDSN207 (SFL-12) |

Dimensions

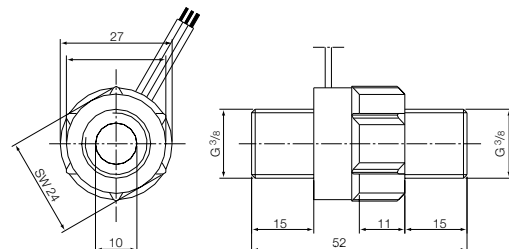
Model: SFL-1220 R10



Pressure Loss



Model: SFL-1320 R10



Order Details (Example: SFL-1220R10)

| Model | Material, housing/rotor | Connection | Measuring range l/min water | Pulse rate (approx.) | t _{max} | p _{max} |
|--------------|-------------------------|------------------------|-----------------------------|----------------------|------------------|------------------|
| SFL-1220 R10 | 1.4305/Vectra | G $\frac{3}{8}$ female | 0,5...20 | 6100 pulses/l | -20...+90 °C | 250 bar |
| SFL-1320 R10 | PVDF/Vectra | G $\frac{3}{8}$ male | 0,5...20 | 5400-6100 pulses/l | -20...+90 °C | 16 bar |

Digital indicators and transducers see under accessories.