

# FLOWMETERS FOR LIQUIDS SF2000

- \* For Liquids
- \* Linearity 3% from value
- \* Repeatability < 0.5% from value
- \* Range 0.1 35 LPM
- \* Temperature Range 20 ... + 100 °C
- \* Up to 20000 Pulses/liter
- \* Pressure up to 25 bar
- \* Frequency Output
- \* Maintenance free



Turbine Flowmeters SF2000 are intended for flow measurements of not abrasive liquids. They are mainly used at applications where small and precise installation is demanded. The Flowmeters are maintenance free and their performance is independent of the installed position. The can be used in the production of oil- and gas burners, cooling systems, washing machines, coffee machines, automatic filling equipment, blending processes, chemical- and pharmaceutical plants, agriculture, automotive industry, etc. Because of the hydro- and aerodynamic form, the rotor moves resistance free inside the body in the stream of the measured medium. A working pressure of up to 25 bars can be reached. It is recommended to filter the liquid with 20-40  $\mu$ m Filter. To prevent turbulences inside the Flowmeter it is recommended to assure the length of the entry pipe of at least 100mm, the length of the outlet of at least 50mm.

### **SPECIFICATIONS**

TYPE	SF2005 2F66 (*)	SF2006 4F44	SF2006 2F66	SF2008 4F16.5	SF2008 4F23	SF2008 4F44	SF2008 2F66			
Flow Range LPM:	0.1-2.5	1-10	0.5-5	2-35	1-25	1-15	0.5-7.5			
DN (mm):	5	6	6	8	8	8	8			
Resolution Pulses/Litre:	20000	3300	6900	700	1000	2200	4700			
Frequency (Hz)	33-833	55-550	58-575	23-408	25-411	37-550	38-575			
Thread	G¼", NTP¼" G <sup>3</sup> / <sub>8</sub> " or NPT <sup>3</sup> / <sub>8</sub> "									
Medium	Non abrasive liquids, filtering with 20-40 µm Filter is recommended									
Material	Case: Grilamid TR55 (PA12), Rotor: PA12 Ferrite, Bearings: PTFE/Graphite									
Viscosity Range	0.8 15 mm <sup>2</sup> / sec									
Linearity	± 3% from momentary value									
Repeatability	< 0.5 %									
Temperature Range	- 20 + 100 °C									
Working Pressure	25 bar									
Destroy Pressure	200 bar									
Supply	5-24V DC, 8 mA									
Principal of operation	Hall Sensor / magnetic									
Output Signal	Open Collector NPN, max. 20mA									
Electrical Terminals	AMP Faston 2.8/6.3 x 0.8mm or Cable									

<sup>(\*)</sup> SF2005-SF66 can also be used for Methanol and Ethanol

## Pressure Drop in bar (H<sub>2</sub>O @ 20°C)

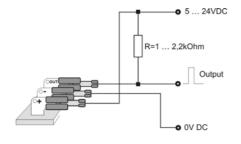
Flow Rate	SF2008 4F16.5	SF2008 4F23	SF2008 4F44	SF2006 4F44	SF2008 F66	SF2006 2F66	SF2005 2F66
1 LPM	0	0	0	0	0	0	0.05
2 LPM	0	0	0	0.05	0	0.06	0.15 @ 1.5LPM
5 LPM	0	0.05	0.05	0.2	0.12	0.2	
10 LPM	0.15	0.17	0.2	0.4	0.4	0.7	
15 LPM	0.25	0.27	0.4				
20 LPM	0.45	0.48					
25 LPM	0.60	0.65					
30 LPM	0.92						

## Regulations for operation and installation

- 1. Check for media compatibility! Sensor material: Grilamid TR55 (PA12)
- 2. Insert a filter for solid particles in the measured medium
- 3. Use in clean installation pipes only
- 4. Check the electric connection according to the diagram
- 5. Do not exceed limits
- 6. The measuring principle is based on volumetric method. Air bubbles in the liquid will be measured.
- 7. Correctly installed, the sensor works completely free of maintenance.
- 8. The flow turbines have to be installed by instructed personal only.

The information and data are based upon tests, material, and records which we consider reliable. Before commercial utilization it is recommended to check each application thoroughly and, irrespective of the technical data, to make sure of the appropriateness of the application.

#### **Electric Connections**



#### **Terminals**





### ABOUT ORBIT CONTROLS INSTRUMENTATION

Flowmeters SF2000 can be directly connected to Orbit Controls digital controllers, transmitters and large remote displays. The instruments measure and display the flow rate, cumulate the totals, provide exact automatic dosing in filling machines, control set points, count batches, generate analogue signals and communicate with PCs and other intelligent controllers. The digital displays can be scaled in required flow units such as LPM, GPM or other.

For more details visit our website www.orbitcontrols.ch



Flow Controller OC7171-3D