Remag
A Badger Meter company

VISION 1000 ®
Flow range 0,1 – 2,5 l/min

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Turbine Flowmeter VISION® 1000
For low viscous and non-aggressive liquids, for very low flow rates

SWISS MADE

- **Low Cost**
- **Small, compact size**
- **Operates in any position**
- **High operating pressure**
- **Temperature range -20°C up to 100°C**
- **High accuracy +/- 3%**
- **Maintenance free**

Operating Principle:

Fluid flow causes a bladed turbine inside the VISION housing to turn at an angular velocity directly proportional to the velocity of the fluid measured. As the blades pass breath a magnetic pickup coil, a frequency signal is generated.
Each pulse is equivalent to a discrete volume of fluid. The frequency pulse is directly proportional to the turbine angular velocity and the flow rate.

The large number of pulses gives a good resolution. As the mass of the turbine are very small the response time is very short. It is not necessary to install a straight length of pipeline at the up streamside.
The simple mechanical construction of the sensor VISION 1000 guarantees a long lifespan without any loss of accuracy. Pressure pulses do not affect the measuring system.

Liquid media:

Water, Purified-Water, Water-based liquids, Beverages Alkaline solutions, Oil, Gasoline, Diesel, Paints, Ink…

Applications:

Food Industry:
Coffee machines, Vending machines, Dispensing systems, Bakery machines, Steamers…

Medical Applications:
Sterilizers, Slide staining, Dental water jets, Dialysis machines…

Chemical- und Pharma Industry:
Dosing systems, Bottling plants…

Industrial applications:
Cooling systems, Washing machines and plants, Dosing systems, Water treatment units, Filter monitoring systems, Solar plants…

Automotive:
Fuel consumption measurement, Fuel injection systems…

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Specifications:

Turbine Type	**1005 2F66**	
Flow rate (l/min)	0,1 – 2,5	
K-factor (PPL)	18‘500	22’000
Frequency (Hz)	30,83 – 770,83	36,67 – 916,67
DN mm	5	

Operating pressure	25 bar	
Burst pressure	200 bar	
Inlet / Outlet ports	G 1/4“	NPT 1/4“
Operating temperature	- 20°C to +100°C (- 4°F to 212°F)	
Accuracy	+/- 3% of Reading	
Repeatability	< 0,50 % under the same operating conditions	
Viscosity	up to 16 cSt	
Electrical connection	3 Pin (2,8 x 0,5) Mini DIN Connector, EN 60529	
Filter	20 to 40 Microns recommended	
Input power	5 – 24 VDC	
Power consumption	~ 8 mA	
Output (Hz)	NPN Sinking Open Collector	
Output current	Max. 20 mA (Pull-Up resistor required, see wiring diagram)	
Materials	Housing	PA12 Trogamid
	Turbine	PA12 Ferrite
	Bearings	PTFE
Weight	~ 10 g	
Approvals	KTW	KTW, NSF/ANSI 61

Pressure drop ∆p in bar, with water flow at 20°C (68°F):

Type	**1005 2F66**
0,5 l/min	0,02
1 l/min	0,05
1,5 l/min	0,15
2,5 l/min	0,25

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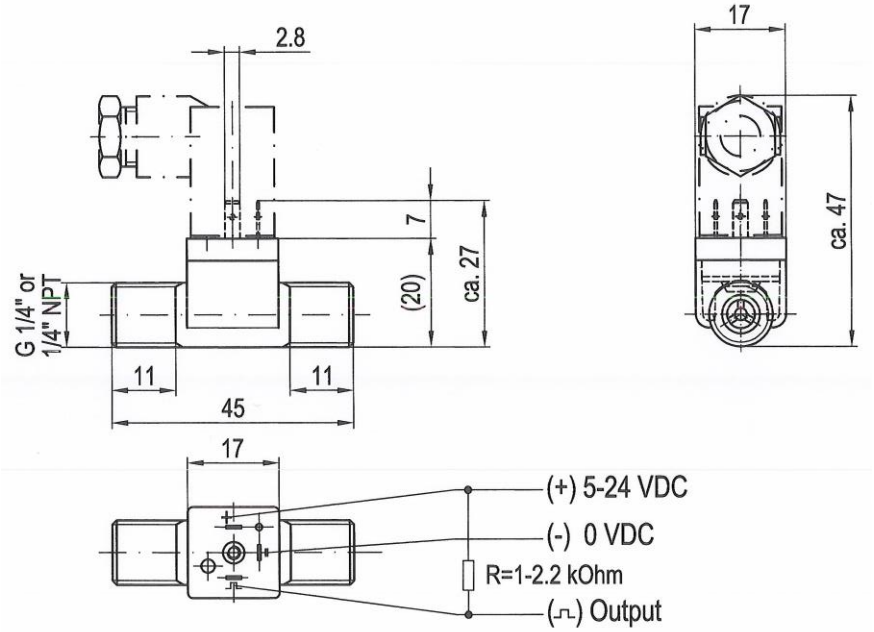
Dimensions (mm) / Wiring:



Order code:

Turbine Type	2F66	2F66
Flow rate (l/min)	0,1 – 2,5 l/min	0,1 – 2,5 l/min
K-Factor (PPL)	18’500	22’000
G 1/4“	46547	56547
NPT 1/4“	46548	56548

Example:

46547	–	163	–	2F66
Housing		**El. Connection**		**Turbine Type**
See chart		163 = DIN Connector		See chart

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Installation and Operation Instructions:

- Check compatibility of media with sensor material.
- Solid ingredients in media require a filter in front of a senor. Avoid absolutely fibrous soiling.
- Install sensor into properly cleaned pipeline only.
- Check electrical connection according to the electrical wiring plan.
- Do not exceed the specific indications.
- The *VISION 1000* ® is a volumetric measuring device, any air/gas in the liquid will be included in measured volume.
- Correctly installed, the sensor works entirely maintenance free.
- Do not blow out the turbine flowmeter with compressed air, the bearings can be damaged.