



DATA SHEET

MICROFLOW - 1/2" PVDF

General Description

Flowmeter is a general-purpose device; specially for higher throughputs of up to approx. 30 l/min. It is employed for measuring, regulating or metering and guarantees most precise measurement of fluid quantities. In addition, a pulse generator integrated into the flowmeter guarantees a practically unlimited useful life.

Special features: Able to withstand high temperatures, good resistance to chemicals. Linear inlet and outlet. **Employed in the semiconductor (wafer polishing) sector due to the high purity of materials used.**

Approvals / Standards

EN55014-1:00+A1:01+A2:02, EN61000-6-3:01+A11:04, IEC61000-6-3:06(ed.2.0), EN61000-3-2:06, IEC61000-3-2:05(ed.3.0), EN61000-3-3:95+A1:01+A2:05, IEC61000-3-3:94+A1:01+A2:05(Cons.ed 1.2), EN55014-2:97+A1:01, EN61000-6-1:01, IEC61000-6-1:05(ed.2)



Material:

Housing:	PVDF
Bearing pin:	PCTFE
Nozzle:	Ø 10.0 mm like housing
O-ring:	FPM (Viton) EPDM / Kalrez on request
Turbine:	PVDF
Magnets:	2 or 4 magnets (not in contact with the medium)
Screws:	Inox A2 PT-screws (Phillips cross recessed)

Technical data:

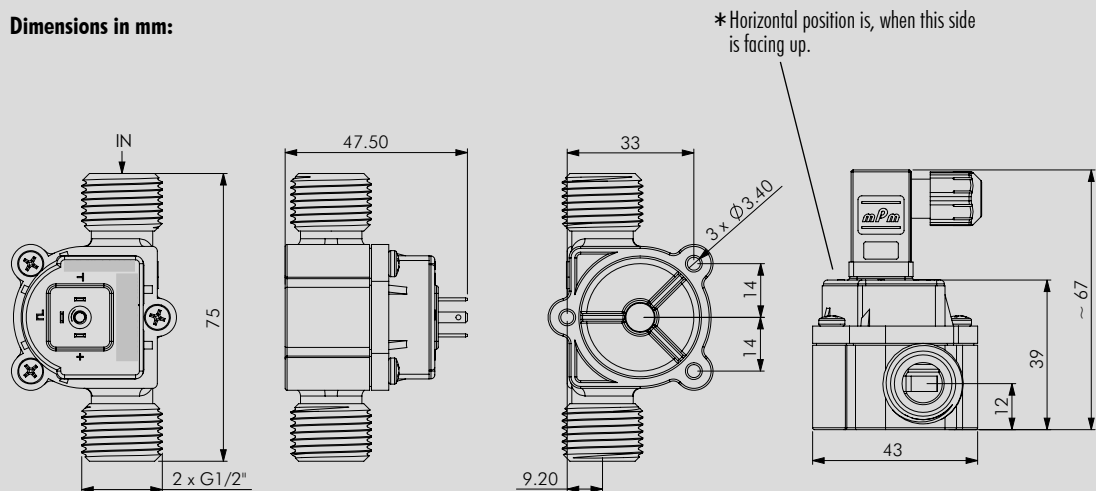
Flow rate:	3.0 - 30 l/min
Continuous operation:	< 500 rpm of the turbine
Measuring accuracy:	+/- 2.0% *
Repetition:	< +/- 0.25%
Temperature range:	-10°C to +100°C 14°F to 212°F
Pressure range:	20 bar at 20°C 290 psi /68°F
Mounting position:	Horizontal *
Nozzle size:	Ø 10.0 mm

Electrical connection ratings:

Power supply:	+3.8 to +24 VDC
Consumption:	< 8 mA
Signal connection:	Open collector NPN
Signal voltage:	0 VDC GND (saturation < 0.7 V)
Signal load:	max. 20 mA
Leakage current:	max. 10 µA
Connections:	3Pin- AMP 2.8 x 0.8 mm
Signal:	Square-wave output
Duty Cycle:	~ 50%

* Accuracy in the linear range for individually calibrated equipment

Dimensions in mm:



RESISTANCE

Special regulations which must be complied with by the flowmeter manufacturer apply to each country, e.g. CE, NSF, FDA and SK. The various media flowing through the flowmeter differ from application to application. You are advised to enquire with the medium manufacturer as to whether the entire installation and the flowmeter are resistant to the medium itself (see Material)!

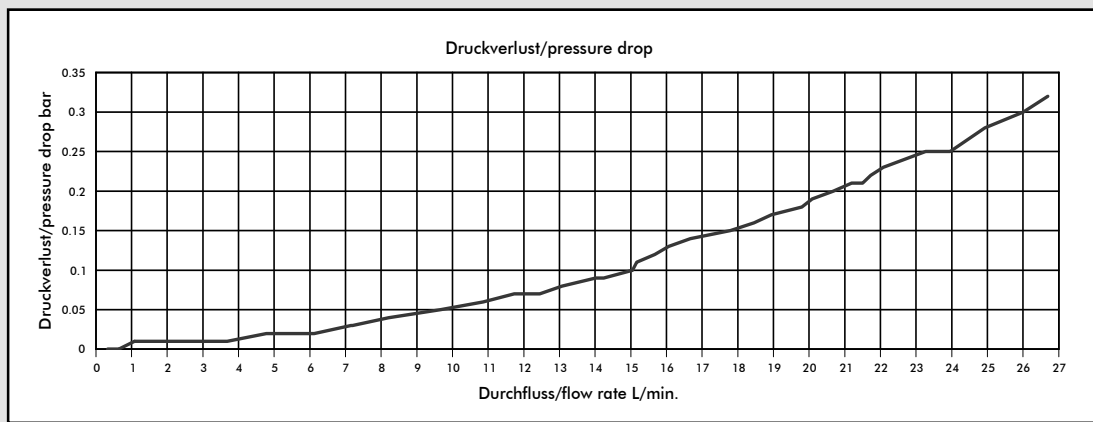
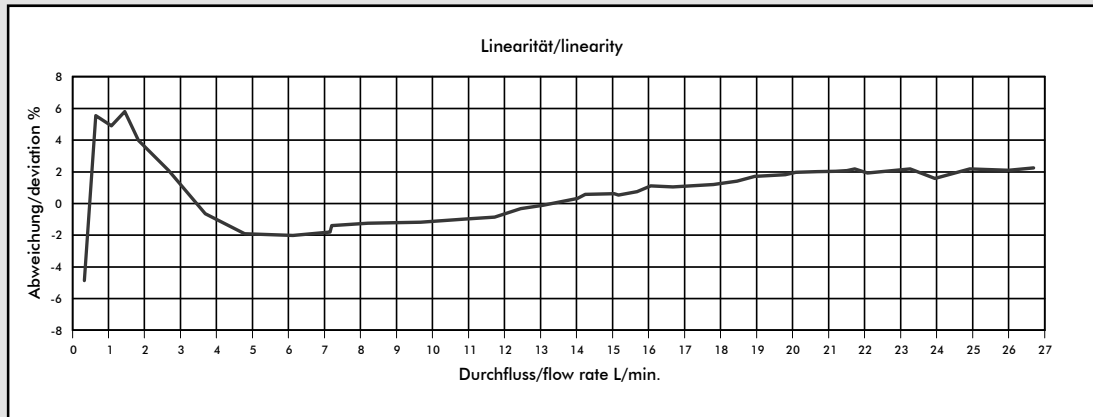
ELECTRONIC

- The flowmeter does not supply an output voltage but switches the signal terminal to 0 V ground (actuated) or leaves it open (non-actuated)

- There must be a pull-up resistor between power supply + and signal depending on electronic circuitry!

Measurement Curve

G1/2", nozzle Ø10.0 mm



Getestet mit Wasser, max. Druck: 3.3 bar / Tested with water, max. pressure 3.3 bar

(2 Magnets)

Nozzle size	Pulses/litre	g/pulse	min. flow rate in [litres/min] at linear start	max. flow rate in [litres/min]	Pressure loss in [bar]
Ø 10.0 mm	65	15.36	3.0	26.69	0.32

(4 Magnets)

Nozzle size	Pulses/litre	g/pulse	min. flow rate in [litres/min] at linear start	max. flow rate in [litres/min]	Pressure loss in [bar]
Ø 10.0 mm	130	7.68	3.0	26.69	0.32

MEASUREMENT TIPS

- Ensure that there is no fast-pulsatory movement of the media
- Ensure that there are no reverse pressure surges
- Ensure that there is no air in the system
- Keep the pressure loss as small as possible
- Note the mounting position of the flowmeter
- Min/max flow should be in the linear range of the selected flowmeter
- Clean the system at appropriate intervals
- Avoid electrical current peaks
- Incorrect cabling of power supply +, signal and ground will destroy the flowmeter
- Do not mechanically load electrical contacts
- Avoid moisture on the electrical contacts
- Avoid stray pick-up via the cable (Do not lay cables in parallel with high current loads)

The values specified must be considered as approximate values.

The number of pulses per litre may differ depending on medium and installation.

We recommend to calibrate the number of pulses per litre in line with the complete installation.