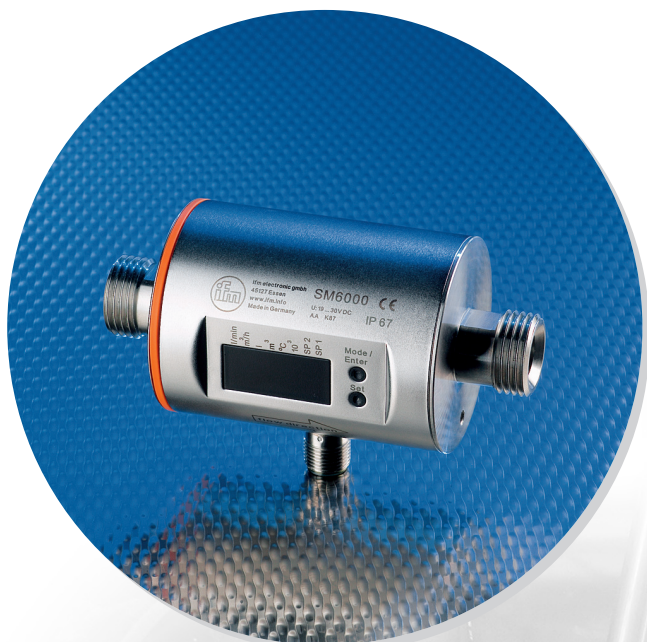




Measurements that hold water!



efector[®]
mid

MID volumetric flow sensor for precise measurement of drinking water.

- High accuracy, repeatability and measurement dynamics.
- Suitable for conductive media from 20 $\mu\text{S}/\text{cm}$, flow rate up to 100 l/min.
- EPDM O-ring for drinking water applications.
- Different process connections possible using adapters
- With flow rate, totalising and temperature indication.



Measurement technique

The flow sensor is based on Faraday's principle of induction.

The conductive medium flowing through a pipe in a magnetic field generates a voltage which is proportional to the flow velocity or flow rate.

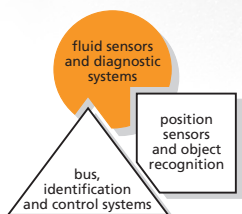
Device function

This voltage is detected via electrodes and converted in the evaluation electronics.

Analogue, binary and pulse outputs offer various possibilities to process the measured data. Due to the flexible programming by means of pushbuttons the flow sensor can be adapted to different conditions. The sensor is mounted via an adapter. A high protection rating and a robust compact housing distinguish the sensor in the field.



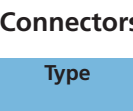
Volumetric flow sensor for the detection of the water quantity in a filtration system.



Applications:
Conductive liquids (conductivity: $\geq 20 \mu\text{S}/\text{cm}$ / viscosity: $< 70 \text{ mm}^2/\text{s}$ at 40°C)

Measuring range flow [l/min]	Pulse value	Response time flow [s]	Accuracy flow	Process connection	Order no.
M12-Steckverbindung · DC PNP/NPN · with display · EPDM O-rings					
0...25	0.05 l...30 000 m ³	< 0.150 (dAP = 0)	$\pm (2 \% \text{ MV} + 0.5 \% \text{ VMR})$	G 1/2	SM6100
0.2...50	0.1 l...50 000 m ³	< 0.150 (dAP = 0)	$\pm (2 \% \text{ MV} + 0.5 \% \text{ VMR})$	G 3/4	SM7100
0.2...100	0.1 l...100 000 m ³	< 0.150 (dAP = 0)	$\pm (2 \% \text{ MV} + 0.5 \% \text{ VMR})$	G 1	SM8100

Accessories

Type	Description	Order no.
	Adapter G 1/2 - G 3/4, pack quantity 2 pcs., high-grade stainless steel	E40189
	Adapter G 1/2 - R 1/2, pack quantity 2 pcs., high-grade stainless steel	E40199
	Adapter, G 3/4 - R 1/2, pack quantity 2 pcs., high-grade stainless steel	E40178
	Adapter, G 1 - R 1/2, pack quantity 2 pcs., high-grade stainless steel	E40179
	Grounding clamp G 1/2	E40196
	Grounding clamp G 3/4	E40197
	Grounding clamp G 1	E40198

Connectors and splitter boxes

Type	Description	Order no.
	Socket, M12, 2 m black, PUR cable	EVC004
	Socket, M12, 5 m black, PUR cable	EVC005
	Socket, M12, 10 m black, PUR cable	EVC006

Further technical data

Type	SM
Operating voltage	[V] 20...30 DC
Measuring range temperature	[°C] -20...80
Short-circuit protection, pulsed	•
Reverse polarity / overload protection	• / •
Current rating	[mA] 2 x 200
Output function	OUT1 normally open / normally closed programmable or pulse OUT2 normally open / normally closed programmable or analogue (4...20 mA / 0...10 V, scalable)
Protection rating, protection class	IP 67, III
Ambient temperature	[°C] -10...60
Medium temperature	[°C] -10...70
Pressure resistance	[bar] 16
Housing materials	high-grade stainless steel (316S12); PBT-GF 20; PC; EPDM/X (Santoprene)
Sensor material	stainless steel (316S16); PEEK (polyether-etherketone)