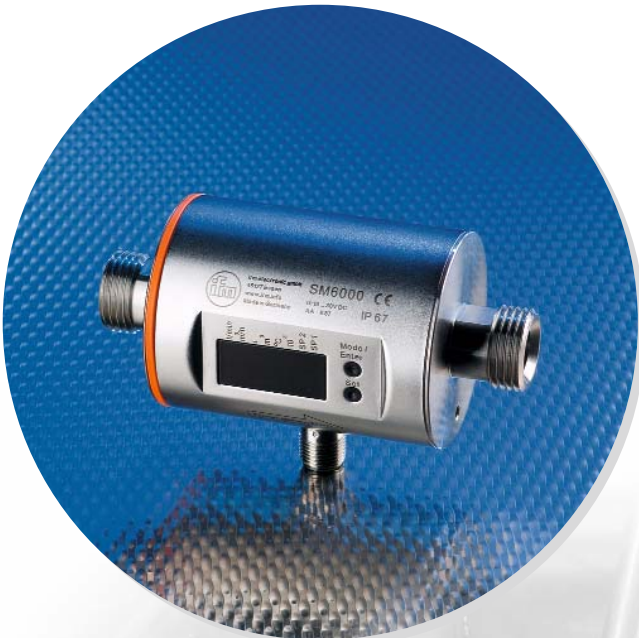


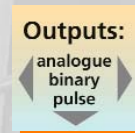


# Addition to the MID flow sensor family.



With flow rate, totalising and temperature indication.

- High accuracy, repeatability and measurement dynamics.
- Suitable for conductive media from 20  $\mu\text{S/cm}$ , flow rate up to 100 l/min.
- Also available with EPDM O-ring for drinking water applications.
- Different process connections possible using adapters
- 4-digit alphanumeric LED display for representation of the units.



## 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.



Magnetic-inductive flow sensor in water cycle for quantity monitoring.

fluid sensors and diagnostic systems

position sensors and object recognition

bus, identification and control systems



**Applications:**

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

Measuring range flow [l/min]	Pulse value	Response time flow [s]	Accuracy flow	Process connection	Order no.
<b>M12 connector · DC PNP/NPN · with display · FKM O-rings</b>					
0...25	0.05 l...30 000 m <sup>3</sup>	< 0.150 (dAP = 0)	$\pm (2 \% \text{ MV} + 0.5 \% \text{ VMR})$	G 1/2	<b>SM6000</b>
0.2...50	0.1 l...50 000 m <sup>3</sup>	< 0.150 (dAP = 0)	$\pm (2 \% \text{ MV} + 0.5 \% \text{ VMR})$	G 3/4	<b>SM7000</b>
0.2...100	0.1 l...100 000 m <sup>3</sup>	< 0.150 (dAP = 0)	$\pm (2 \% \text{ MV} + 0.5 \% \text{ VMR})$	G 1	<b>SM8000</b>
<b>M12-Steckverbindung · DC PNP/NPN · with display · EPDM O-rings</b>					
0...25	0,05 l...30 000 m <sup>3</sup>	< 0.150 (dAP = 0)	$\pm (2 \% \text{ MV} + 0.5 \% \text{ VMR})$	G 1/2	<b>SM6100</b>
0.2...50	0,1 l...50 000 m <sup>3</sup>	< 0.150 (dAP = 0)	$\pm (2 \% \text{ MV} + 0.5 \% \text{ VMR})$	G 3/4	<b>SM7100</b>
0.2...100	0,1 l...100 000 m <sup>3</sup>	< 0.150 (dAP = 0)	$\pm (2 \% \text{ MV} + 0.5 \% \text{ VMR})$	G 1	<b>SM8100</b>
<b>M12-Steckverbindung · DC · with display · FKM O-rings</b>					
0...25	–	< 0.150 (dAP = 0)	$\pm (2 \% \text{ MV} + 0.5 \% \text{ VMR})$	G 1/2	<b>SM6004</b>
0.2...50	–	< 0.150 (dAP = 0)	$\pm (2 \% \text{ MV} + 0.5 \% \text{ VMR})$	G 3/4	<b>SM7004</b>
0.2...100	–	< 0.150 (dAP = 0)	$\pm (2 \% \text{ MV} + 0.5 \% \text{ VMR})$	G 1	<b>SM8004</b>
<b>M12 connector · DC · without display · FKM O-rings</b>					
0...25	–	< 0.150 (dAP = 0)	$\pm (2 \% \text{ MV} + 0.5 \% \text{ VMR})$	G 1/2	<b>SM6050</b>

**Accessories**

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

**Connectors and splitter boxes**

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

**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
Output function	OUT2	normally open / normally closed programmable or analogue (4...20 mA / 0...10 V, scalable)
Output function	OUT	2 x analogue (4...20 mA, scalable)
Output function	OUT	analogue (4...20 mA)
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)

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