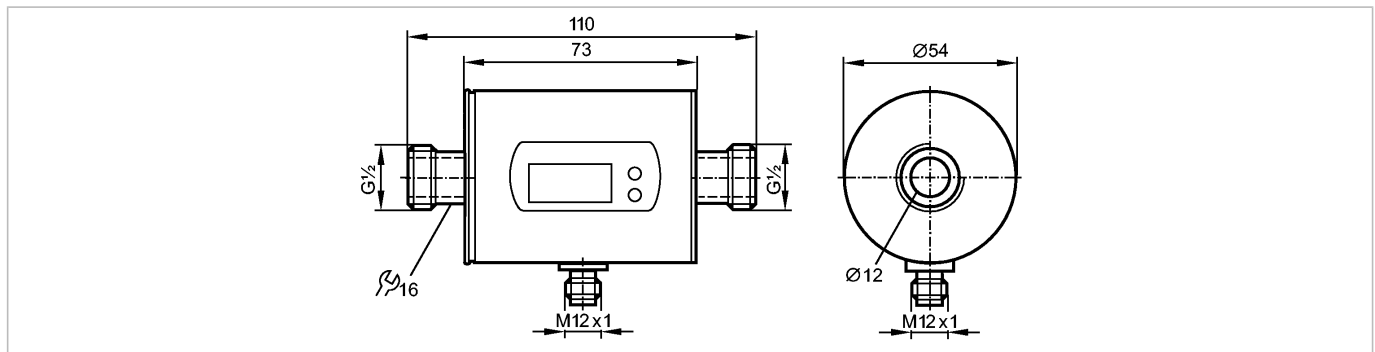


**SM6004**

SMR12GGX50KG/US-100

Flow sensors



Made in Germany

**Product characteristics**

Magnetic-inductive flow meter
Connector
Process connection: G $\frac{1}{2}$ flat seal
connection to pipe by means of an adapter
2 outputs
OUT1 = analogue signal temperature
OUT2 = analogue signal flow
Display units:
l/min, m <sup>3</sup> /h, gpm, gph
°C / °F
Measuring range
0.1...25 l/min

**Application**

Application	Conductive liquids (conductivity: $\geq 20 \mu\text{S/cm}$ / viscosity: $< 70 \text{ mm}^2/\text{s}$ at 40 °C)
Medium temperature [°C]	-10...70

**Electrical data**

Electrical design	DC
Operating voltage [V]	20...30 DC <sup>1)</sup>
Current consumption [mA]	120; (24 V)
Insulation resistance [MΩ]	$> 100$ (500 V DC)
Protection class	III
Reverse polarity protection	yes

**Outputs**

Output function	2 x analogue (4...20 mA scalable)
Overload protection	yes
Analogue output	4...20 mA, max. 22 mA
Max. load [Ω]	max. 500

**Measuring / setting range**

Flow monitoring		
Measuring range	0.1...25.00 l/min	0.03...6.60 gpm
Display range	-30...30 l/min	-7.92...7.92 gpm
Resolution	0.05 l/min	0.01 gpm
Analogue start point, ASP	0.00...20.00 l/min	0.00...5.28 gpm
Analogue end point, AEP	5.00...25.00 l/min	1.32...6.60 gpm



## SM6004

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Flow sensors

in steps of	0.05 l/min	0.01 gpm
Temperature monitoring		
Measuring range	[°C]	-20...80
Resolution	[°C]	0.2
Analogue start point, ASP	[°C]	-20.0...60.0
Analogue end point, AEP	[°C]	0.0...80.0
in steps of	[°C]	0.2

### Accuracy / deviations

Flow monitoring		
Accuracy		± (2% MW + 0.5% MEW)
Repeatability		± 0.2% MEW
Pressure loss (dP) / flow rate (Q)		

Temperature monitoring		
Accuracy	[K]	± 2.5 (Q > 1 l/min)

### Reaction times

Power-on delay time	[s]	5
Flow monitoring		
Response time	[s]	< 0.150 (dAP = 0)
Damping, dAP	[s]	0.0...3.0
Temperature monitoring		
Response time	[s]	T09 = 30 (Q > 1 l/min)

### Environment

Pressure rating	[bar]	16
Ambient temperature	[°C]	-10...60
Storage temperature	[°C]	-25...80
Protection		IP 67

### Tests / approvals

EC pressure equipment directive 97/23/EC		Article 3, section 3 - sound engineering practice
EMC		EN 61000-4-2 ESD: 4 kV CD / 8 kV AD EN 61000-4-3 HF radiated: 10 V/m EN 61000-4-4 Burst: 2 kV EN 61000-4-5 Surge: 0.5 kV EN 61000-4-6 HF conducted: 10 V
Shock resistance		DIN IEC 68-2-27: 20 g (11 ms)
Vibration resistance		DIN IEC 68-2-6: 5 g (10...2000 Hz)
MTTF	[Years]	175

### Mechanical data

Process connection		G½ flat seal
Materials (wetted parts)		stainless steel 316L / 1.4404; PEEK (polyether ether ketone); FKM
Housing materials		stainless steel 316L / 1.4404; PBT-GF 20; PC; EPDM/X

## SM6004

SMR12GGX50KG/US-100

Flow sensors

Weight	[kg]	0.516
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### Displays / operating elements

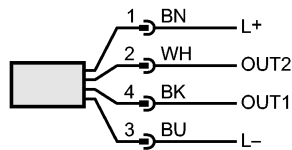
Display	Display unit	6 x LED green (l/min, m <sup>3</sup> /h, gpm, gph, °C, °F)
	Measured values	4-digit alphanumeric display
	Programming	4-digit alphanumeric display

### Electrical connection

Connection	M12 connector; Gold-plated contacts
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#### Wiring

Core colours  
 BK black  
 BN brown  
 BU blue  
 WH white



Colours to DIN EN 60947-5-6

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 OUT1: analogue output temperature  
 OUT2: analogue output flow rate

### Remarks

Remarks	1) to EN50178, SELV, PELV MW = measured value MEW = final value of the measuring range
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Pack quantity	[piece]	1
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