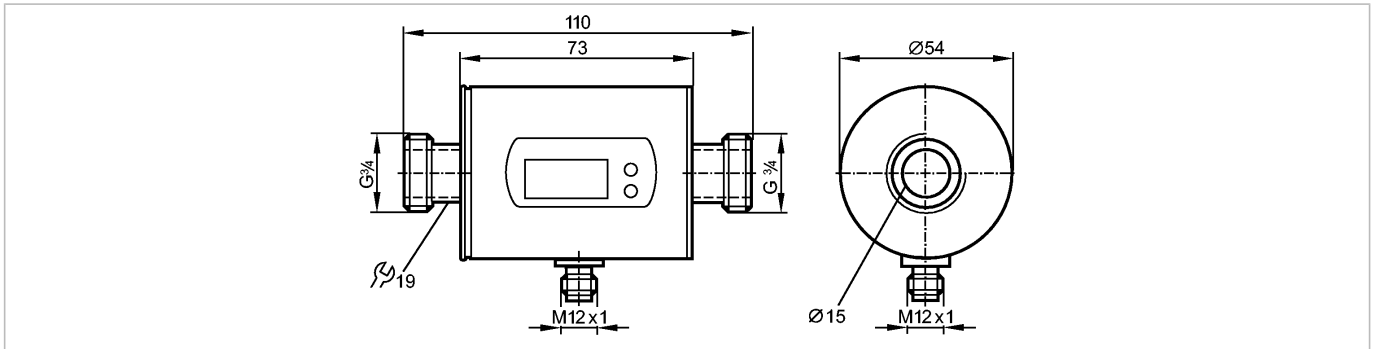


**SM7004**

SMR34GGX50KG/US100

Flow sensors



Made in Germany

**Product characteristics**

Magnetic-inductive flow meter
Connector
Process connection: G $\frac{3}{4}$ 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
0.2...50 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	0.2...50.0 l/min	0.02...13.22 gpm
Measuring range	0.2...50.0 l/min	0.02...13.22 gpm
Display range	-60.0...60.0 l/min	-15.86...15.86 gpm
Resolution	0.1 l/min	0.02 gpm
Analogue start point, ASP	0.0...40.0 l/min	0.00...10.58 gpm

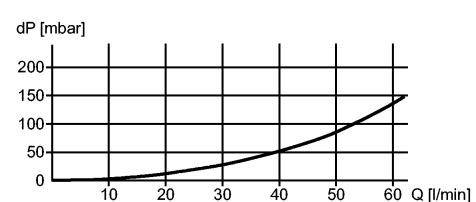
## SM7004

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Flow sensors

Analogue end point, AEP	10.0...50.0 l/min	2.64...13.22 gpm
in steps of	0.1 l/min	0.02 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)	 <p>The graph plots pressure loss (dP) in mbar on the y-axis (0 to 200) against flow rate (Q) in l/min on the x-axis (0 to 60). The curve starts at (0,0) and rises to approximately 150 mbar at 60 l/min.</p>

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	G $\frac{3}{4}$ flat seal
Materials (wetted parts)	stainless steel 316L / 1.4404; PEEK (polyether ether ketone); FKM

## SM7004

SMR34GGX50KG/US100

Flow sensors

Housing materials	stainless steel 316L / 1.4404; PBT-GF 20; PC; EPDM/X
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Weight [kg]	0.56
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### Displays / operating elements

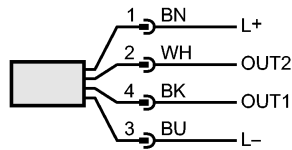
Display	Display unit 6 x LED green (l/min, m <sup>3</sup> /h, gpm, gph, °C, °F) Measured values 4-digit alphanumeric display Programming 4-digit alphanumeric display
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### Electrical connection

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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