

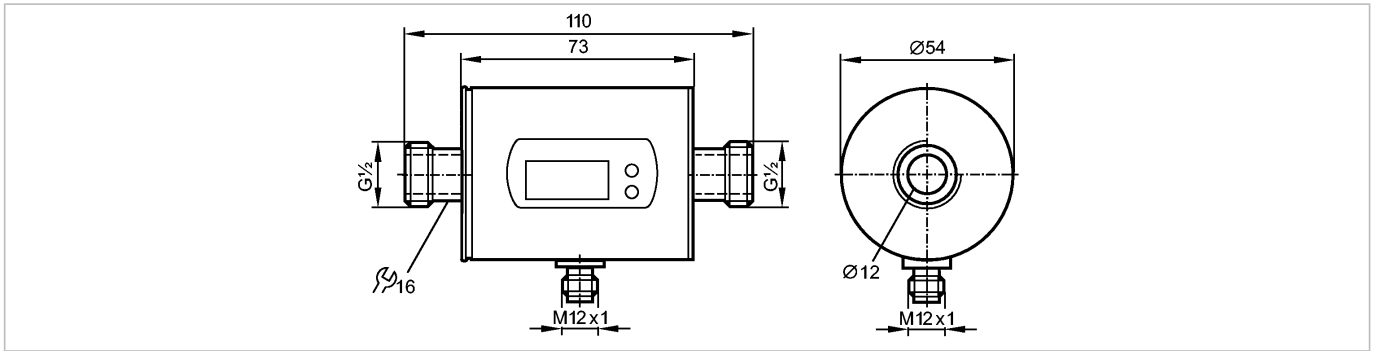


SM6004

SMR12GGX50KG/US-100



Flow sensors



Product characteristics

Magnetic-inductive flow meter

Quick disconnect

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

Measuring range

0.1...25 l/min

Application

Application

Conductive liquids
(conductivity: $\geq 20 \mu\text{S/cm}$ / viscosity: $< 70 \text{ cSt}$ at $104 \text{ }^\circ\text{F}$)

Pressure rating [bar]

16

Medium temperature [°C]

-10...70

Electrical data

Electrical design

DC

Operating voltage [V]

20...30 DC ¹⁾

Current consumption [mA]

120 (24 V)

Insulation resistance [M Ω]

> 100 (500 V DC)

Protection class

III

Reverse polarity protection

yes

Outputs

Output function

2 x analog (4...20 mA scalable)

Overload protection

yes

Analog output

4...20 mA, max. 22 mA

Max. load [Ω]

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

Analog start point, ASP

0.00...20.00 l/min

0.00...5.28 gpm

Analog end point, AEP

5.00...25.00 l/min

1.32...6.60 gpm

in steps of

0.05 l/min

0.01 gpm

Temperature monitoring



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Flow sensors

Measuring range	[°C]	-20...80
Resolution	[°C]	0.2
Analog start point, ASP	[°C]	-20.0...60.0
Analog end point, AEP	[°C]	0.0...80.0
in steps of	[°C]	0.2

Accuracy / deviations

Flow monitoring		
Accuracy		$\pm (2\% \text{ MW} + 0.5\% \text{ MEW})$
Repeatability		$\pm 0.2\% \text{ MEW}$
Pressure loss (dP) / flow rate (Q)		<p>The graph plots pressure loss (dP) in mbar on the y-axis (0 to 300) against flow rate (Q) in l/min on the x-axis (0 to 30). The curve shows a non-linear relationship, starting at (0,0) and reaching approximately 300 mbar at 30 l/min.</p>

Temperature monitoring		
Accuracy	[K]	$\pm 2.5 (Q > 1 \text{ l/min})$

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]	$T09 = 20 (Q > 1 \text{ l/min})$

Environment

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

Tests / approvals

Pressure equipment directive		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; FKM; TPE
Weight	[kg]	0.516

Displays / operating elements

Display	Display unit	6 x LED green (l/min, m³/h, gpm, gph, °C, °F)
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Flow sensors

Measured values 4-digit alphanumeric display
Programming 4-digit alphanumeric display

Electrical connection

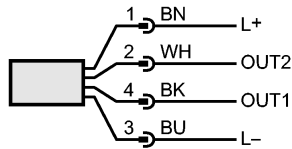
Connection

M12 connector; gold-plated contacts

Wiring

Core colors

BK black
BN brown
BU blue
WH white



Colours to DIN EN 60947-5-2

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

Pack quantity

[piece]

1