

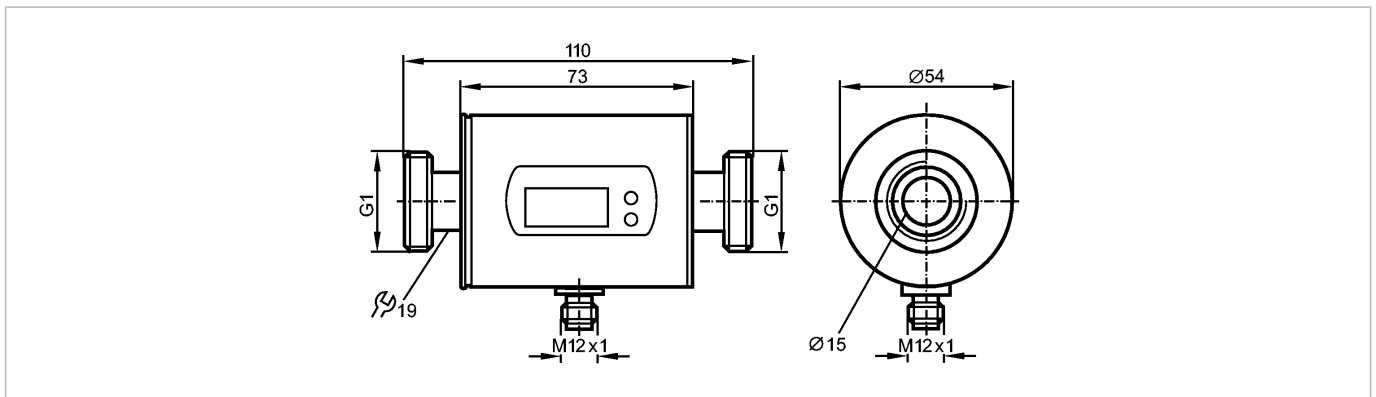


SM8004

SMR11GGX50KG/US100



Flow sensors



Product characteristics

Magnetic-inductive flow meter

Quick disconnect

Process connection: G1 flat seal

connection to pipe by means of an adapter

2 outputs

OUT1 = analogue signal temperature

OUT2 = analogue signal flow

Measuring range

0.2...100 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 [MΩ]

> 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

0.2...100.0 l/min

0.10...26.40 gpm

Display range

-120.0...120.0 l/min

-31.70...31.70 gpm

Resolution

0.1 l/min

0.05 gpm

Analog start point, ASP

0.0...80.0 l/min

0.00...21.10 gpm

Analog end point, AEP

20.0...100.0 l/min

5.30...26.40 gpm

in steps of

0.1 l/min

0.05 gpm



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Temperature monitoring

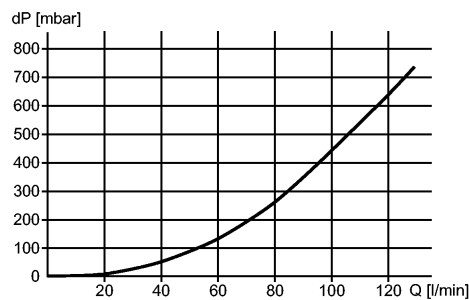
Measuring range	[°C]	-20...80
Resolution	[°C]	0.2
Analog start point, ASP	[°C]	-20.0...60.0
Analog end point, AEP	[°C]	0.0...80.0
in steps of	[°C]	0.2

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)



Temperature monitoring

Accuracy	[K]	$\pm 2.5 (Q > 1 \text{ l/min})$
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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 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	G1 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]	0.616



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Flow sensors

Displays / operating elements

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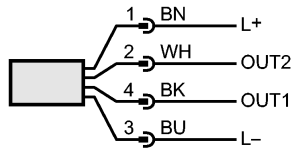
Electrical connection

Connection	M12 connector; gold-plated contacts
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Wiring

Core 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
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Pack quantity	[piece]	1
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