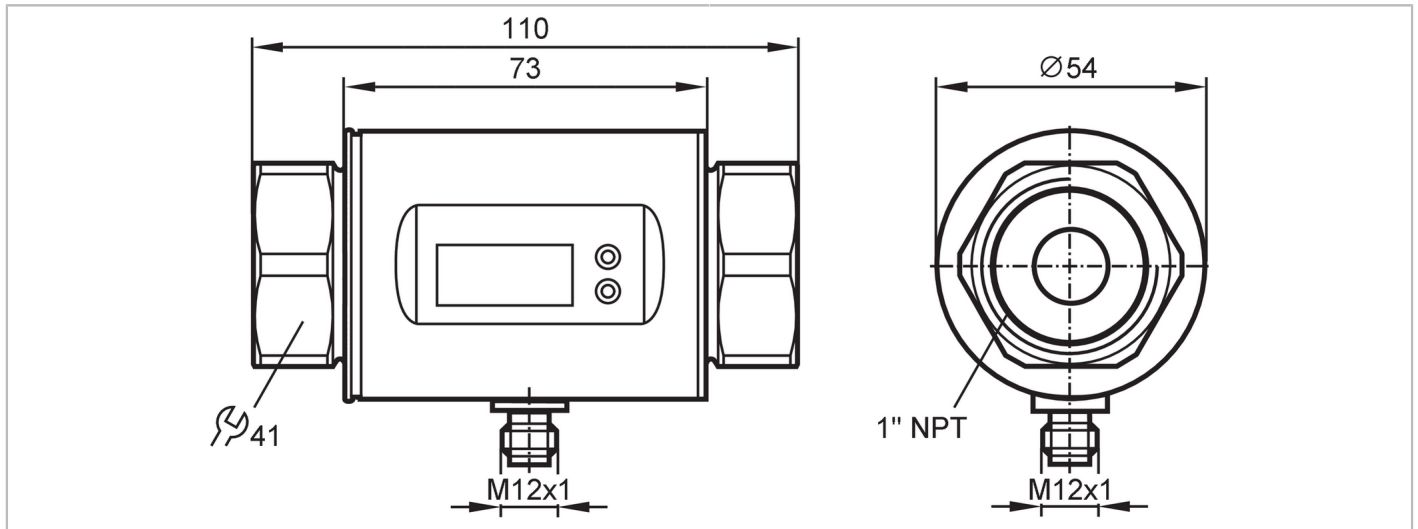


# SM8604



## Magnetic-inductive flow meter

SMN11GGX50KG/US-100



### Product characteristics

Number of inputs and outputs	Number of analogue outputs: 2	
Measuring range	0.2...100 l/min	0.1...26.4 gpm
Process connection	threaded connection 1" NPT internal thread DN25	

### Application

Special feature	Gold-plated contacts	
Application	for industrial applications	
Media	conductive liquids; water; hydrous media	
Note on media	conductivity: $\geq 20 \mu\text{S/cm}$ viscosity: $< 70 \text{ mm}^2/\text{s}$ (40 °C)	
Medium temperature [°C]	-10...70	
Pressure rating	16 bar	1.6 MPa
MAWP for applications according to CRN	10.4 bar	1.04 MPa

### Electrical data

Operating voltage [V]	20...30 DC; (to SELV/PELV)	
Current consumption [mA]	120; (24 V)	
Protection class	III	
Reverse polarity protection	yes	
Power-on delay time [s]	5	
Measuring principle	magnetic-inductive	

### Inputs / outputs

Number of inputs and outputs	Number of analogue outputs: 2	
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### Outputs

Total number of outputs	2	
Output signal	analogue signal	
Number of analogue outputs	2	
Analogue current output [mA]	4...20; (scalable)	
Max. load [Ω]	500	

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Overload protection		yes
<b>Measuring/setting range</b>		
Measuring range	0.2...100 l/min	0.1...26.4 gpm
Display range	-120...120 l/min	-31.7...31.7 gpm
Resolution	0.1 l/min	0.05 gpm
Analogue start point ASP	0...80 l/min	0...21.1 gpm
Analogue end point AEP	20...100 l/min	5.3...26.4 gpm
In steps of	0.1 l/min	0.05 gpm
<b>Temperature monitoring</b>		
Measuring range	[°C]	-20...80
Resolution	[°C]	0.2
Analogue start point	[°C]	-20...60
Analogue end point	[°C]	0...80
In steps of	[°C]	0.2
<b>Accuracy / deviations</b>		
<b>Flow monitoring</b>		
Accuracy (in the measuring range)		$\pm (2 \% MW + 0,5 \% MEW)$
Repeatability		$\pm 0,2\% MEW$
<b>Temperature monitoring</b>		
Accuracy	[K]	$\pm 2,5 (Q > 1 \text{ l/min})$
<b>Response times</b>		
<b>Flow monitoring</b>		
Response time	[s]	0.15; (dAP = 0, T19)
Damping process value dAP	[s]	0...3
<b>Temperature monitoring</b>		
Dynamic response T05 / T09	[s]	T09 = 20 (Q > 1 l/min)
<b>Operating conditions</b>		
Ambient temperature	[°C]	-10...60
Storage temperature	[°C]	-25...80
Protection		IP 67
<b>Tests / approvals</b>		
EMC	DIN EN 60947-5-9	500 withstand voltage (V DC)
CPA approval	model number	009MI
	accuracy class	-
	maximum allowable error	$\pm 2,5 \% FS$
	Q (min)	0,01 m <sup>3</sup> /h
	Q (t)	-
	Q (max)	6 m <sup>3</sup> /h
Shock resistance	DIN EN 60068-2-27	20 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	5 g (10...2000 Hz)
MTTF	[years]	175
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request

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Mechanical data	
Weight [g]	636.2
Housing	cylindrical
Inlet pipe length	3 x DN
Outlet pipe length	1 x DN
Dimensions [mm]	Ø 54 / L = 110
Materials	stainless steel (316L/1.4404); PBT-GF20; PC; FKM; TPE
Materials (wetted parts)	stainless steel (316L/1.4404); PEEK; FKM
Process connection	threaded connection 1" NPT internal thread DN25

Displays / operating elements		
Display	Display unit	6 x LED, green (l/min, m³/h, gpm, gph, °C, °F)
	measured values	alphanumeric display, 4-digit
	programming	alphanumeric display, 4-digit
Display unit	l/min; m³/h; gpm; gph; °C; °F	

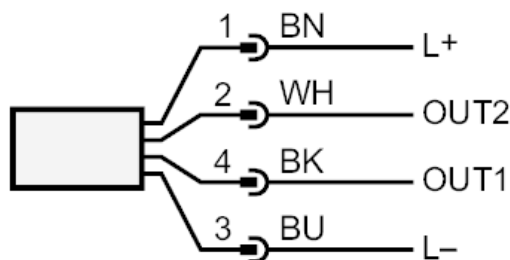
Remarks	
Remarks	MW = measured value MEW = Final value of the measuring range
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



### Connection



OUT1: analogue output Temperature monitoring  
 OUT2: analogue output volumetric flow quantity monitoring  
 Core colours :  
 BK = black  
 BN = brown  
 BU = blue  
 WH = white

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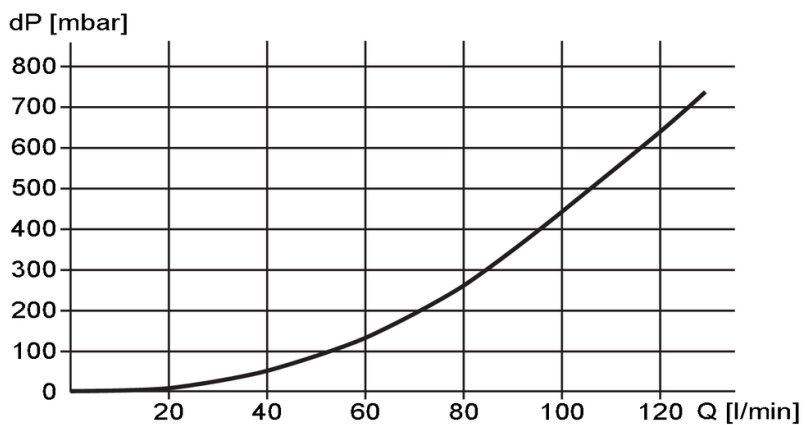


## Magnetic-inductive flow meter

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### Diagrams and graphs

Pressure loss



dP Pressure loss

Q volumetric flow quantity