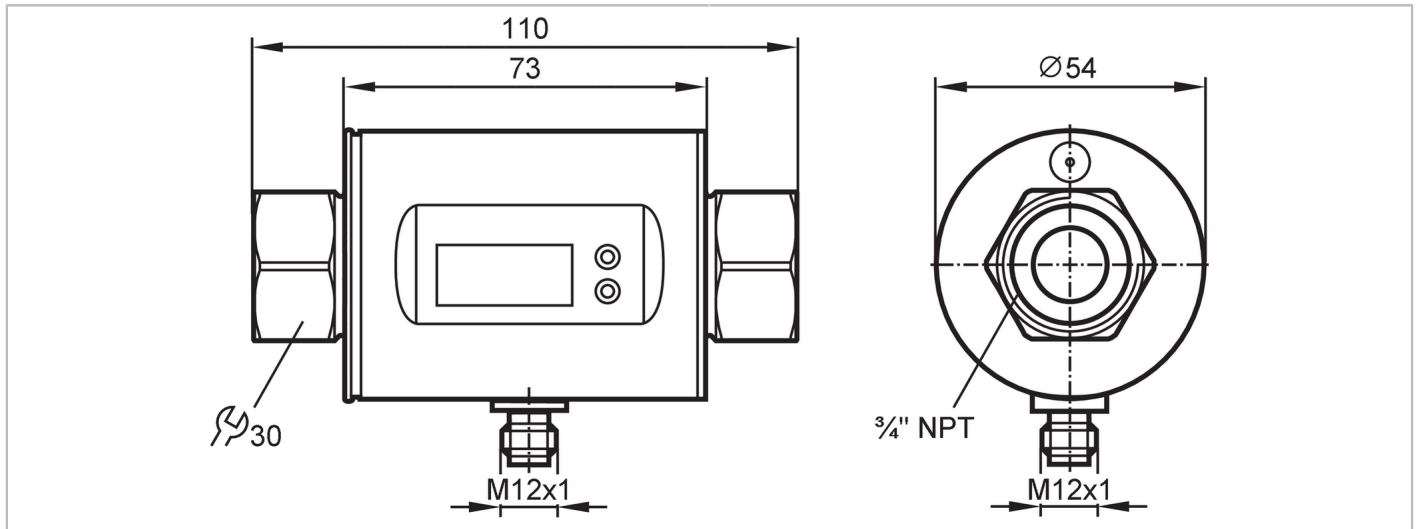


# SM7604



## Magnetic-inductive flow meter

SMN34GGX50KG/US-100



Product characteristics	
Number of inputs and outputs	Number of analogue outputs: 2
Measuring range	0.2...50 l/min      0.02...13.22 gpm
Process connection	threaded connection 3/4" NPT internal thread DN20

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

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...50 l/min	0.02...13.22 gpm
Display range	-60...60 l/min	-15.86...15.86 gpm
Resolution	0.1 l/min	0.02 gpm
Analogue start point ASP	0...40 l/min	0...10.58 gpm
Analogue end point AEP	10...50 l/min	2.64...13.22 gpm
In steps of	0.1 l/min	0.02 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 V withstand voltage (V DC)
CPA approval	model number	008MI
	accuracy class	-
	maximum allowable error	$\pm 2,5 \% FS$
	Q (min)	0,01 m <sup>3</sup> /h
	Q (t)	-
	Q (max)	3 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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## Magnetic-inductive flow meter

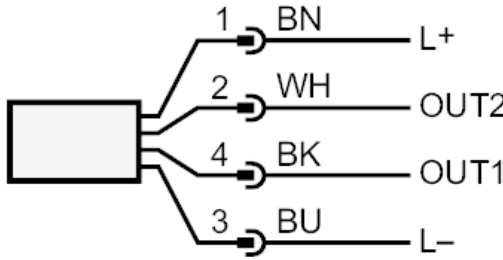
SMN34GGX50KG/US-100

Mechanical data	
Weight [g]	527.5
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 3/4" NPT internal thread DN20

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: 4, 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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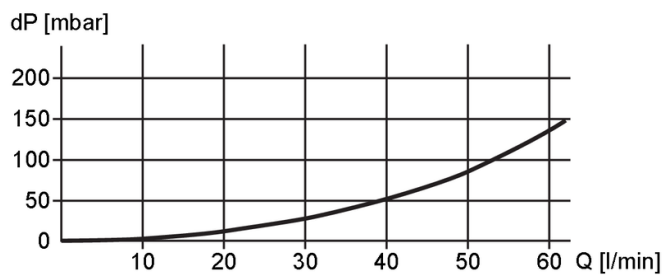


## Magnetic-inductive flow meter

SMN34GGX50KG/US-100

### Diagrams and graphs

Pressure loss



dP Pressure loss

Q volumetric flow quantity