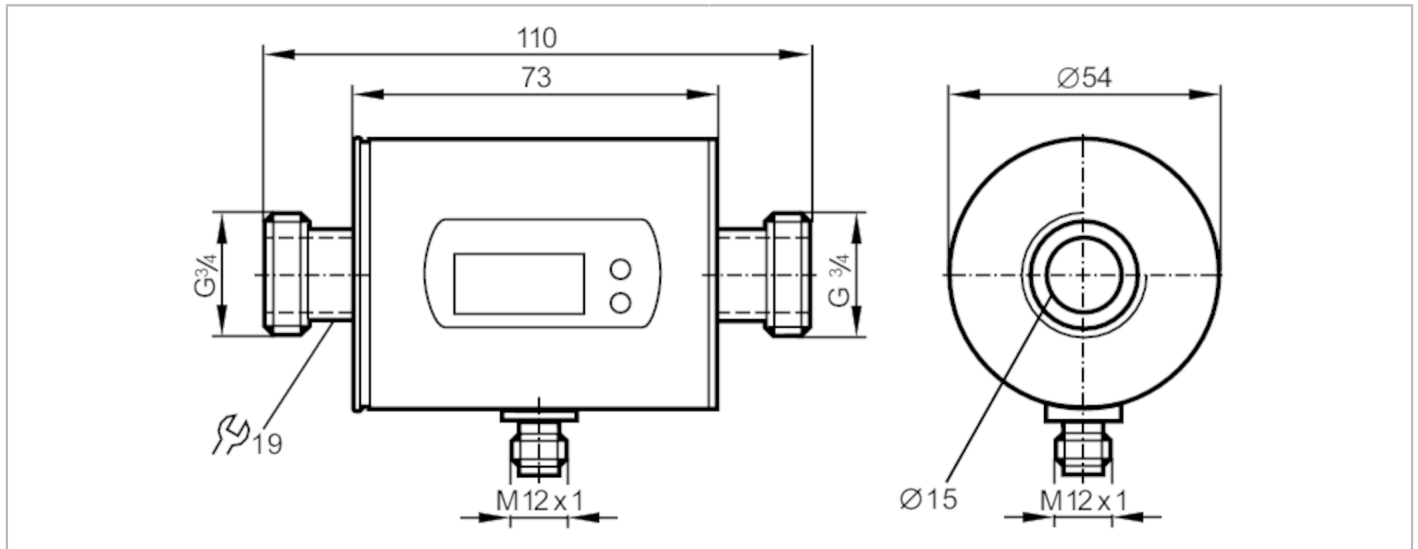


SM7004



Magnetic-inductive flow meter

SMR34GGX50KG/US100



Product characteristics

Number of inputs and outputs	Number of analog outputs: 2	
Measuring range	0.2...50 l/min	0.02...13.22 gpm
Process connection	threaded connection G 3/4 external thread DN20 flat seal	

Application

System	gold-plated contacts	
Application	for industrial applications	
Installation	connection to pipe by means of an adapter	
Media	Conductive liquids; water; water-based 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 analog outputs: 2
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Outputs

Total number of outputs	2
Output signal	analog signal
Number of analog outputs	2

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Analog current output	[mA]	4...20; (scalable)
Max. load	[Ω]	500
Overload protection		yes

Measuring/setting range

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
Analog start point ASP	0...40 l/min	0...10.58 gpm
Analog end point AEP	10...50 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
Analog start point	[°C]	-20...60
Analog end point	[°C]	0...80
In steps of	[°C]	0.2

Accuracy / deviations

Flow monitoring

Accuracy (in the measuring range)		$\pm (2 \% MW + 0,5 \% MEW)$
Repeatability		$\pm 0,2\% MEW$

Temperature monitoring

Accuracy	[K]	$\pm 2,5 (Q > 1 \text{ l/min})$
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Reaction times

Flow monitoring

Response time	[s]	0.15; (dAP = 0, T19)
Damping process value dAP	[s]	0...3

Temperature monitoring

Dynamic response T05 / T09	[s]	T09 = 20 (Q > 1 l/min)
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Operating conditions

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

Tests / approvals

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 ³ /h
	Q (t)	-
	Q (max)	3 m ³ /h
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
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]	521.2
Housing	tubular
Inlet pipe length	3 x DN
Outlet pipe length	1 x DN
Dimensions [mm]	Ø 54 / L = 110
Material	stainless steel (1.4404 / 316L); PBT-GF20; PC; FKM; TPE
Materials (wetted parts)	stainless steel (1.4404 / 316L); PEEK; FKM
Process connection	threaded connection G 3/4 external thread DN20 flat seal

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



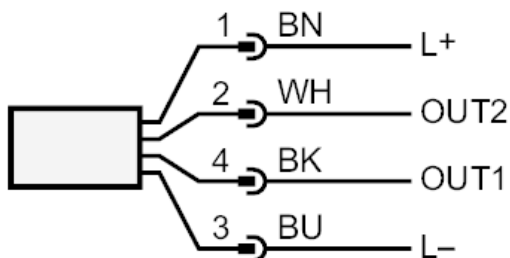
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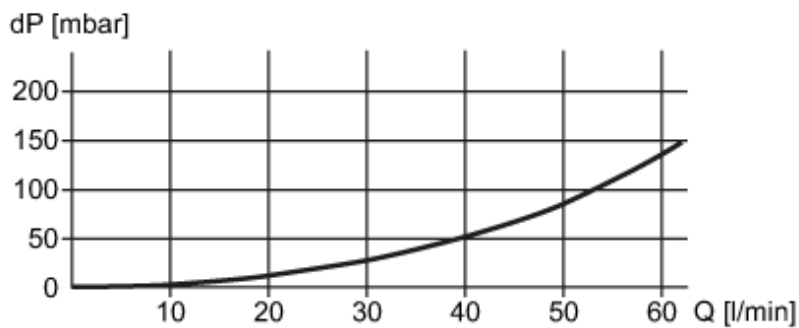
Connection



OUT1: analog output Temperature monitoring
OUT2: analog output Volumetric flow quantity monitoring
Core colors :
BK = black
BN = brown
BU = blue
WH = white

Diagrams and graphs

Pressure loss



dP Pressure loss
Q volumetric flow quantity