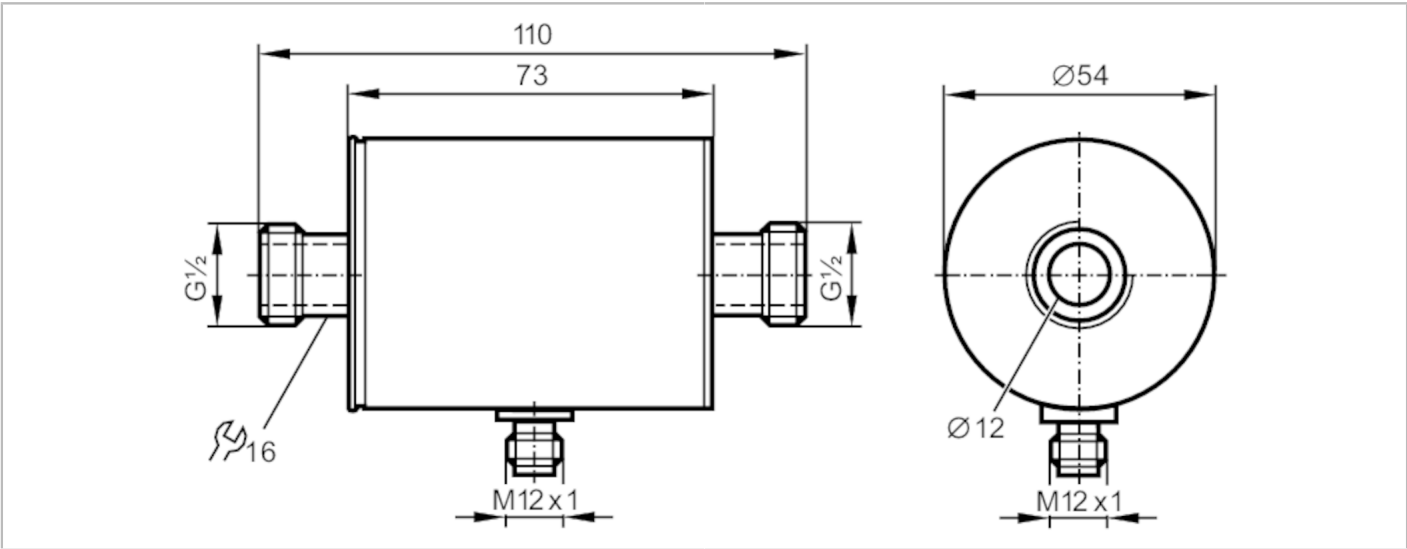


SM6050



Magnetic-inductive flow meter

SMR12GGX10KG/US-100



Product characteristics

Number of inputs and outputs	Number of analogue outputs: 1
Measuring range [l/min]	0.1...25
Process connection	threaded connection G 1/2 external thread DN15 flat seal

Application

Special feature	Gold-plated contacts
Application	for industrial applications
Installation	connection to pipe by means of an adapter
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	15.3 bar 1.53 MPa

Electrical data

Operating voltage [V]	18...30 DC; (to SELV/PELV)
Current consumption [mA]	95; (24 V)
Min. insulation resistance [MΩ]	100; (500 V DC)
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: 1
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Outputs

Total number of outputs	1
Output signal	analogue signal; IO-Link; (configurable)



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Permanent current rating of switching output DC	[mA]	250
Number of analogue outputs		1
Analogue current output	[mA]	4...20
Max. load	[Ω]	500
Overload protection		yes

Measuring/setting range

Measuring range	[l/min]	0.1...25
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Accuracy / deviations

Flow monitoring		
Accuracy (in the measuring range)		± (0,8 % MW + 0,5 % MEW)
Repeatability		± 0,2% MEW

Response times

Flow monitoring		
Response time	[s]	0.15; (dAP = 0, T19)
Temperature monitoring		
Dynamic response T05 / T09	[s]	T09 = 20 (Q > 1 l/min)

Interfaces

Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
Profiles	Smart Sensor - SSP 0	Generic Profiled Sensor
	Function	Device identification
	Function	Process data variable
	Function	Device diagnosis
SIO mode	yes	
Required master port type	A	
Process data analogue	2	
Min. process cycle time	[ms]	5
Supported DeviceIDs	Type of operation	DeviceID
	default	571

Operating conditions

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

Tests / approvals

EMC	DIN EN 60947-5-9	
CPA approval	model number	001MI
	accuracy class	-
	maximum allowable error	± 1,5 % FS
	Q (min)	0,005 m³/h
	Q (t)	-
	Q (max)	1,5 m³/h

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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]	167	
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data

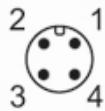
Weight [g]	480.6
Housing	cylindrical
Dimensions [mm]	Ø 54 / L = 110
Materials	stainless steel (316L/1.4404); PBT-GF20; FKM; TPE
Materials (wetted parts)	stainless steel (316L/1.4404); PEEK; FKM
Process connection	threaded connection G 1/2 external thread DN15 flat seal

Remarks

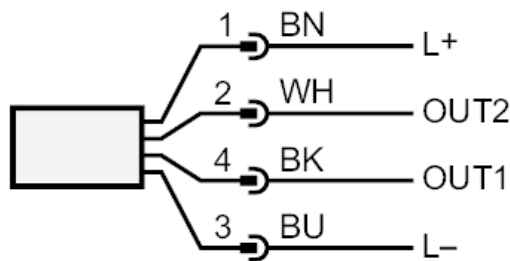
Remarks	MW = measured value
	MEW = Final value of the measuring range
Pack quantity	1 pcs.

Electrical connection

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



Connection



OUT1: IO-Link
OUT2: analogue output
Core colours :
BN = brown
WH = white
BK = black
BU = blue

colours to DIN EN 60947-5-2

SM6050

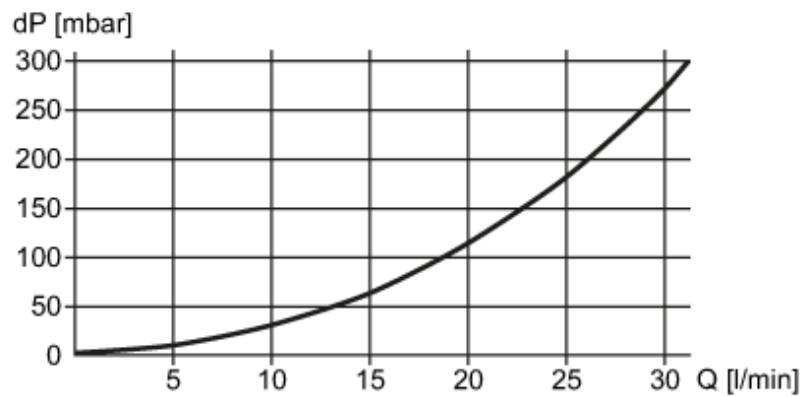


Magnetic-inductive flow meter

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Diagrams and graphs

Pressure loss



dP Pressure loss

Q volumetric flow quantity