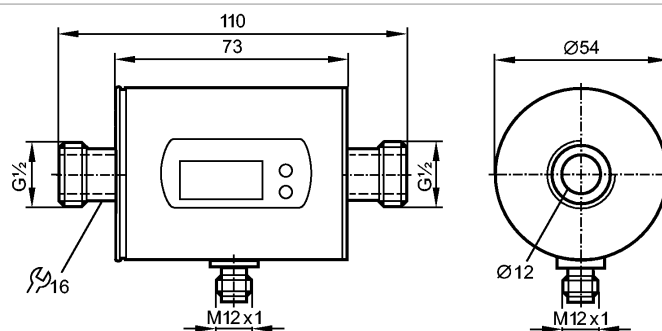


SM6001

SMR12GGXFRKG/US-100

Flow sensors



Product characteristics

Magnetic-inductive flow meter

Quick disconnect

Process connection: G $\frac{1}{2}$ flat seal

connection to pipe by means of an adapter

Function programmable

Totalizer function

2 outputs

OUT1 = flow monitoring (binary), flow rate meter (pulse), preset meter (binary)

OUT2 = flow monitoring or temperature monitoring (analog or binary)

Input for counter reset

Measuring range

0.03...6.604 gpm

Application

Application	Conductive liquids (conductivity: $\geq 20 \mu\text{S/cm}$ / viscosity: $< 70 \text{ cSt}$ at 104°F)
Pressure rating [psi]	232
Medium temperature [°F]	14...158

Electrical data

Electrical design	DC PNP/NPN
Operating voltage [V]	19...30 DC; to EN 50178, SELV, PELV
Current consumption [mA]	120
Insulation resistance [MΩ]	> 100 (500 V DC)
Protection class	III
Reverse polarity protection	yes

Outputs

Output function	OUT1: normally open / closed programmable or pulse OUT2: normally open / closed programmable or analog (4...20 mA / 0...10 V, scaleable)
Current rating [mA]	2 x 200
Voltage drop [V]	< 2
Short-circuit protection	yes (non-latching)
Overload protection	yes
Analog output	4...20 mA; 0...10 V
Max. load [Ω]	500 (4...20 mA)
Min. load [Ω]	2000 (0...10 V)
Pulse output	flow rate meter

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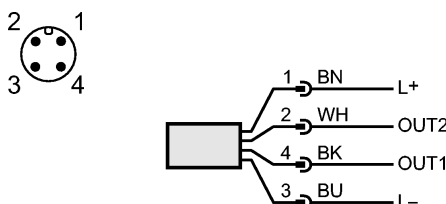
Flow sensors

Measuring / setting range		
Flow monitoring		
Measuring range	0.030...6.604 gpm	1.5...396.3 gph
Display range	-7.925...7.925 gpm	-475.5...475.5 gph
Resolution	0.010 gpm	0.5 gph
Set point, SP	0.060...6.600 gpm	3.5...396.5 gph
Reset point, rP	0.030...6.570 gpm	1.5...394.0 gph
Analog start point, ASP	0.000...5.300 gpm	0.0...318.0 gph
Analog end point, AEP	1.300...6.600 gpm	78.0...396.0 gph
in steps of	0.010 gpm	0.5 gph
Volumetric flow quantity monitoring		
Pulse value	0.01...30 000 000 gal	
Pulse length [s]	0.01...2	
Temperature monitoring		
Measuring range [°F]	-4...176	
Resolution [°F]	0.1	
Set point, SP [°F]	-2.5...176.0	
Reset point, rP [°F]	-3.5...175.0	
Analog start point, ASP [°F]	-4.0...140.5	
Analog end point, AEP [°F]	31.5...176.0	
in steps of [°F]	0.5	
Accuracy / deviations		
Flow monitoring		
Accuracy	± (2% MW + 0.5% MEW)	
Repeatability	± 0.2% MEW	
Pressure loss (dP) / flow rate (Q)		
Temperature monitoring		
Accuracy [K]	± 4.5 (Q > 0.26 gpm)	
Reaction times		
Power-on delay time [s]	5	
Flow monitoring		
Start-up delay [s]	0...50	
Response time [s]	< 0.150 (dAP = 0)	
Damping, dAP [s]	0.0...5.0	
Temperature monitoring		
Response time [s]	T09 = 20 (Q > 0.26 gpm)	
Software / programming		
Programming options	hysteresis / window function; N.O. / N.C; output polarity; current / voltage / pulse output; start-up delay; display can be deactivated; display unit	

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Flow sensors

Environment		
Ambient temperature	[°F]	14...140
Storage temperature	[°F]	-13...176
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]	160
Mechanical data		
Process connection	G½ 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]	0.495
Displays / operating elements		
Display	Display unit 6 x LED green (gpm, gph, gal, °F, 10³, 1000 x 10³) Switching status 2 x LED yellow Measured values 4-digit alphanumeric display Programming 4-digit alphanumeric display	
Electrical connection		
Connection	M12 connector; gold-plated contacts	
Wiring Core colors BK black BN brown BU blue WH white  Colours to DIN EN 60947-5-2 ----- OUT1: 3 selection options switching output flow rate monitoring pulse output quantity meter signal output preset counter ----- OUT2: 5 selection options switching output flow rate monitoring switching output temperature monitoring analogue output flow rate analogue output temperature Input for counter reset		
Remarks		
Remarks	MW = measured value MEW = final value of the measuring range	
Pack quantity	[piece]	1



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Flow sensors