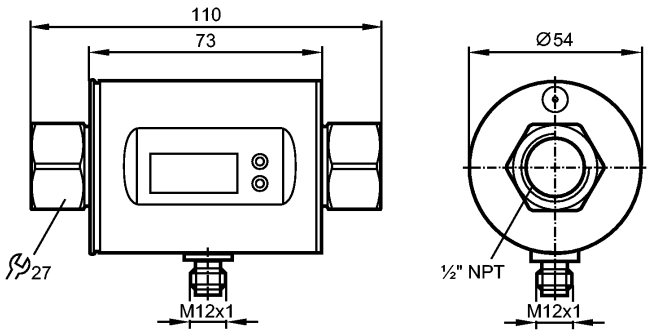
efector300

SM6601

SMN12GGXFRKG/US-100

Flow sensors



Product characteristics

Magnetic-inductive flow meter

Quick disconnect

Process connection: ½" NPT

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

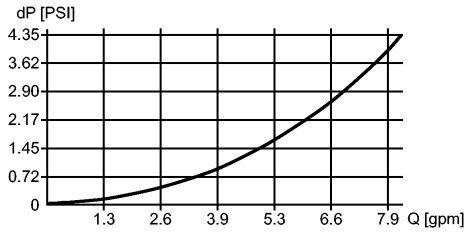
Application		conductive liquids of the fluid group 2 according to the Pressure Equipment Directive (PED) (conductivity: ≥ 20 µS/cm / viscosity: < 70 mm²/s at 40°C)
Pressure rating	[psi]	232
Medium temperature	[°F]	14...158

Electrical data

Electrical design		DC PNP/NPN
Operating voltage	[V]	19...30 DC [1])
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	
Measuring / setting range			
Flow monitoring			
Measuring range		0.03...6.604 gpm	1.5...396.3 gph
Display range		-7.925...7.925 gpm	-475.5...475.5 gph
Resolution		0.01 gpm	0.5 gph
Set point, SP		0.06...6.6 gpm	3.5...396.5 gph
Reset point, rP		0.03...6.57 gpm	1.5...394 gph
Analog start point, ASP		0...5.3 gpm	0...318 gph
Analog end point, AEP		1.3...6.6 gpm	78...396 gph
in steps of		0.01 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	
Reset point, rP	[°F]	-3.5...175	
Analog start point, ASP	[°F]	-4...140.5	
Analog end point, AEP	[°F]	31.5...176	
in steps of	[°F]	0.5	
Accuracy / deviations			
Flow monitoring			
Accuracy	[% of the final value]	± (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			

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Programming options		hysteresis / window function; N.O. / N.C; output polarity; current / voltage / pulse output; start-up delay; display can be deactivated; display unit

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		DIN EN 61000-6-2 DIN EN 61000-6-3
Shock resistance		DIN EN 68000-2-27: 20 g (11 ms)
Vibration resistance		DIN EN 60068-2-6 5 g (10...2000 Hz)
MTTF	[Years]	145

Mechanical data

Process connection		½" NPT
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]	0.522

Displays / operating elements

Display	Display unit 6 x LED green (gpm, gph, gal, °F, 10^3, 1000 x 10^3) Switching status 2 x LED yellow Measured values 4-digit alphanumeric display Programming 4-digit alphanumeric display

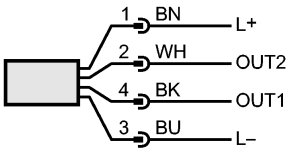
Electrical connection

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	[1]) to EN50178, SELV, PELV MW = measured value MEW = final value of the measuring range

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Pack quantity	[piece]	1