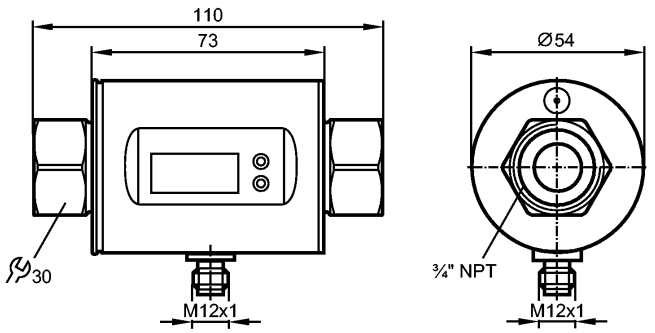
efector300

SM7601

SMN34GGXFRKG/US-100

Flow sensors



IO-Link

Product characteristics

Magnetic-inductive flow meter

Quick disconnect

Process connection: 3/4" NPT

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

0.06...13.20 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]	18...30 DC; to EN 50178, SELV, PELV
Current consumption	[mA]	95 (24)
Insulation resistance	[MΩ]	> 100 (500 V DC)
Protection class		III
Reverse polarity protection		yes

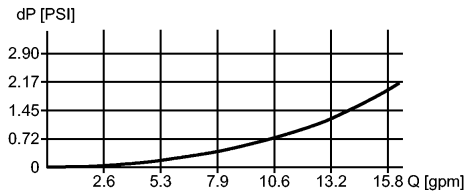
Outputs

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]	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)

SM7601

SMN34GGXFRKG/US-100

Flow sensors

Pulse output		flow rate meter	
Measuring / setting range			
Flow monitoring			
Measuring range		0.06...13.2 gpm	3...792 gph
Display range		-15.84...15.84 gpm	-951...951 gph
Resolution		0.02 gpm	1 gph
Set point, SP		0.12...13.2 gpm	7...792 gph
Reset point, rP		0.06...13.14 gpm	3...788 gph
Analog start point, ASP		0...10.6 gpm	0...636 gph
Analog end point, AEP		2.6...13.2 gpm	156...792 gph
in steps of		0.02 gpm	1 gph
Volumetric flow quantity monitoring			
Pulse value		0.01...99 990 000 gal	
Pulse length	[s]	0.005...2	
Temperature monitoring			
Measuring range	[°F]	-4...176	
Resolution	[°F]	0.5	
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]	± (0.8% 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	

efector300

SM7601

SMN34GGXFRKG/US-100

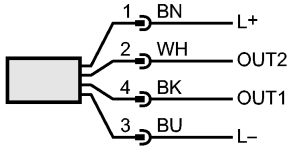
Flow sensors

Interfaces			
IO-Link Device			
Transfer type		COM2 (38.4 kBaud)	
IO-Link revision		1.1	
SDCI standard		IEC 61131-9	
IO-Link Device ID		573 / 00 02 3d	
Profiles		Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis	
SIO mode		yes	
Required master port class		A	
Process data analogue		3	
Process data binary		2	
Min. process cycle time	[ms]	5	
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 60947-5-9	500 V Withstand voltage [V DC]
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]	145	
Mechanical data			
Process connection		3/4" 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]	0.537	
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: 4 selection options
switching output flow rate monitoring
pulse output quantity meter
signal output preset counter

	IO-Link 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