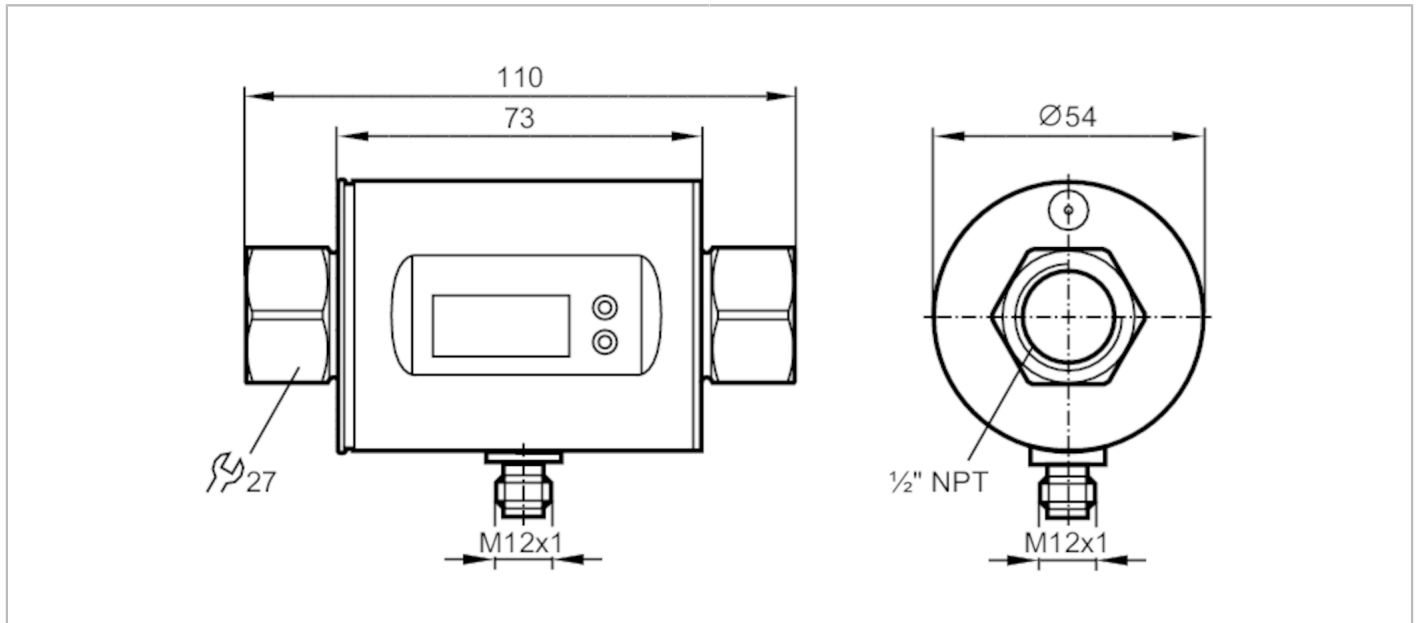


# SM6601



## Magnetic-inductive flow meter

SMN12GGXFRKG/US-100



### Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1
Process connection	threaded connection 1/2 NPT DN15
Temperature monitoring	
Measuring range [°F]	-4...176

### Application

Special feature	Gold-plated contacts
Application	totaliser function; for industrial applications
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 [°F]	14...158
Pressure rating [bar]	16
Pressure rating [psi]	232
MAWP (for applications according to CRN) [bar]	17.7

### Electrical data

Operating voltage [V]	18...30 DC; (according to EN 50178 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

### Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1
------------------------------	---



## Magnetic-inductive flow meter

SMN12GGXFRKG/US-100

Inputs		
Inputs	counter reset	
Outputs		
Total number of outputs	2	
Output signal	switching signal; analogue signal; pulse signal; IO-Link; (configurable)	
Electrical design	PNP/NPN	
Number of digital outputs	2	
Output function	normally open / normally closed; (parameterisable)	
Max. voltage drop switching output DC [V]	2	
Permanent current rating of switching output DC [mA]	200	
Number of analogue outputs	1	
Analogue current output [mA]	4...20; (scalable)	
Max. load [ $\Omega$ ]	500	
Analogue voltage output [V]	0...10; (scalable)	
Min. load resistance [ $\Omega$ ]	2000	
Pulse output	flow rate meter	
Short-circuit protection	yes	
Type of short-circuit protection	pulsed	
Overload protection	yes	
Measuring/setting range		
Measuring range	1.5...396 gph	0.03...6.6 gpm
Display range	-475.5...475.5 gph	-7.925...7.925 gpm
Resolution	0.5 gph	0.01 gpm
Set point SP	3.5...396.5 gph	0.06...6.6 gpm
Reset point rP	1.5...394 gph	0.03...6.57 gpm
Analogue start point ASP	0...318 gph	0...5.3 gpm
Analogue end point AEP	78...396 gph	1.3...6.6 gpm
In steps of	0.5 gph	0.01 gpm
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	
Analogue start point [°F]	-4...140.5	
Analogue end point [°F]	31.5...176	
In steps of [°F]	0.5	

# SM6601



## Magnetic-inductive flow meter

SMN12GGXFRKG/US-100

Accuracy / deviations		
Flow monitoring		
Accuracy (in the measuring range)		$\pm (0,8 \% MW + 0,5 \% MEW)$
Repeatability		$\pm 0,2\% MEW$
Temperature monitoring		
Accuracy	[K]	$\pm 4,5 (Q > 0,26 \text{ gpm})$
Response times		
Flow monitoring		
Response time	[s]	0.15; (dAP = 0, T19)
Delay time programmable dS, dr	[s]	0...50
Damping for the switching output dAP	[s]	0...5
Temperature monitoring		
Dynamic response T05 / T09	[s]	T09 = 20 (Q > 0,26 gpm)
Software / programming		
Parameter setting options		Flow monitoring; quantity meter; Preset counter; Temperature monitoring; hysteresis / window; normally open / normally closed; switching logic; current/voltage/pulse output; start-up delay; display can be deactivated; Display unit
Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
IO-Link device ID		570 / 00 02 3a h
Profiles		Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis
SIO mode		yes
Required master port type		A
Process data analogue		3
Process data binary		2
Min. process cycle time	[ms]	5
Operating conditions		
Ambient temperature	[°F]	14...140
Storage temperature	[°F]	-13...176
Protection		IP 67
Tests / approvals		
EMC		DIN EN 60947-5-9
Shock resistance		DIN EN 68000-2-27
Vibration resistance		DIN EN 60068-2-6
MTTF	[years]	145
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request

# SM6601



## Magnetic-inductive flow meter

SMN12GGXFRKG/US-100

### Mechanical data

Weight	[g]	586.5
Materials		stainless steel (1.4404 / 316L); PBT-GF20; PC; FKM; TPE
Materials (wetted parts)		stainless steel (1.4404 / 316L); PEEK; FKM
Process connection		threaded connection 1/2 NPT DN15

### Displays / operating elements

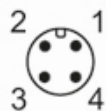
Display	Display unit	6 x LED, green (gpm, gph, gal, °F, 10 <sup>3</sup> , 1000 x 10 <sup>3</sup> )
	switching status	2 x LED, yellow
	measured values	alphanumeric display, 4-digit
	programming	alphanumeric display, 4-digit

### Remarks

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

### Electrical connection

Connector: 1 x M12; Contacts: gold-plated



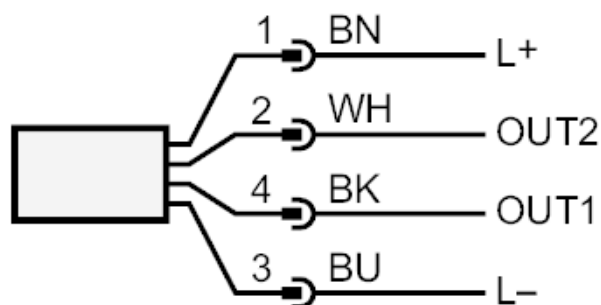
# SM6601



## Magnetic-inductive flow meter

SMN12GGXFRKG/US-100

### Connection



	colours to DIN EN 60947-5-2
OUT1:	switching output volumetric flow quantity monitoring Pulse output quantity meter signal output Preset counter IO-Link
OUT2:	switching output volumetric flow quantity monitoring switching output Temperature monitoring analogue output volumetric flow quantity monitoring analogue output Temperature monitoring input counter reset
	Core colours :
BK =	black
BN =	brown
BU =	blue
WH =	white

# SM6601

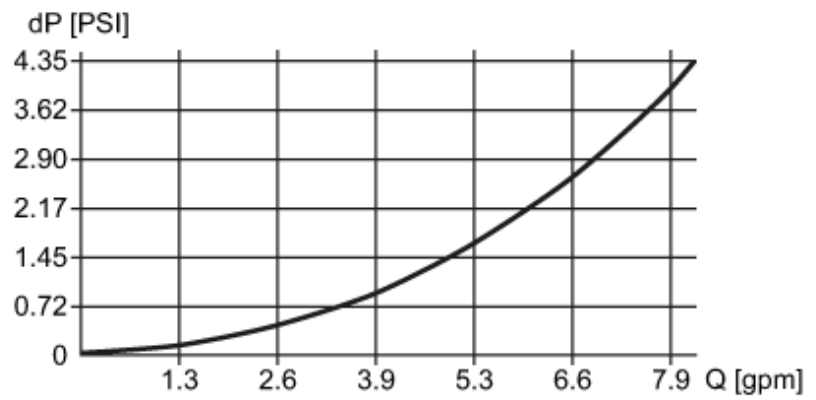


## Magnetic-inductive flow meter

SMN12GGXFRKG/US-100

### Diagrams and graphs

Pressure loss



dP Pressure loss

Q volumetric flow quantity