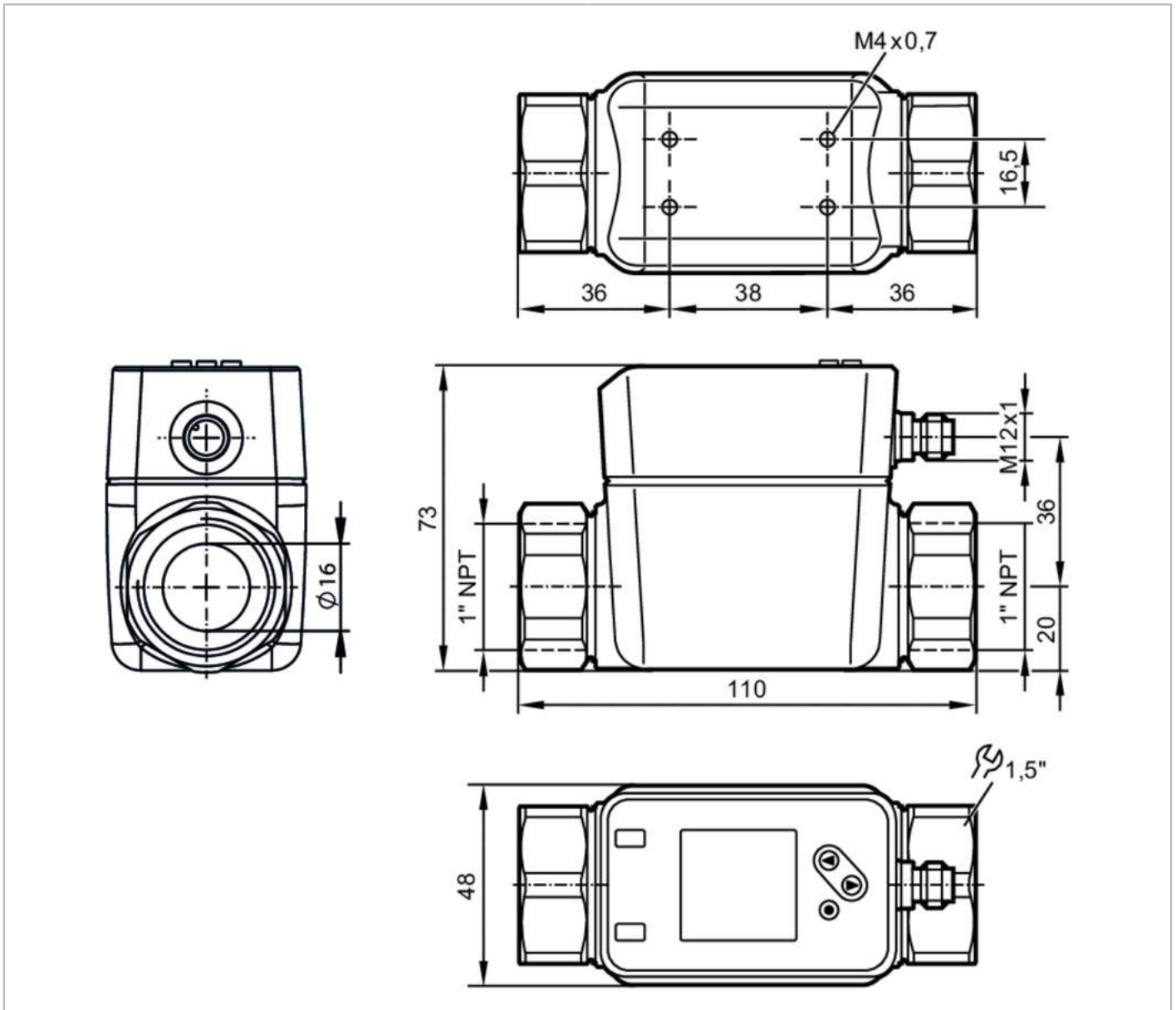


# SM8621



## Magnetic-inductive flow meter

SMN11XGXFRKG/US-100



Product characteristics	
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1
Process connection	1" NPT DN25
Application	
Special feature	Gold-plated contacts
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] -4...194
Pressure rating	[bar] 16
Pressure rating	[Mpa] 1.6

# SM8621



## Magnetic-inductive flow meter

SMN11XGXFRKG/US-100

Electrical data					
Operating voltage	[V]	18...30 DC; (to SELV/PELV)			
Current consumption	[mA]	< 80			
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			
Inputs					
Inputs		counter reset			
Outputs					
Total number of outputs		2			
Output signal		switching signal; analogue signal; pulse signal; IO-Link; frequency signal; (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]	100			
Number of analogue outputs		1			
Analogue current output	[mA]	4...20; (scalable)			
Max. load	[Ω]	500			
Pulse output		flow rate meter			
Short-circuit protection		yes			
Type of short-circuit protection		pulsed			
Overload protection		yes			
Measuring/setting range					
Measuring range		0.2...150 l/min	0.012...9 m³/h	3.6...2376 gph	0.06...39.6 gpm
Display range		-180...180 l/min	-10.8...10.8 m³/h	-2853.6...2853.6 gph	-47.56...47.56 gpm
Resolution		0.1 l/min	0.006 m³/h	0.6 gph	0.01 gpm
Set point SP		1...150 l/min	0.06...9 m³/h	16.2...2376 gph	0.27...39.6 gpm
Reset point rP		0.2...149.2 l/min	0.012...8.95 m³/h	3.6...1903 gph	0.06...39.42 gpm
Analogue start point ASP		0...120 l/min	0...7.2 m³/h	0...1903 gph	0...31.71 gpm
Analogue end point AEP		30...150 l/min	1.8...9 m³/h	475...2376 gph	7.92...39.6 gpm
Low flow cut-off LFC		0.2...7.5 l/min	0.012...0.45 m³/h	3...118.4 gph	0.05...1.98 gpm
Frequency end point, FEP		30.2...150 l/min	1.8...9 m³/h	480...2376 gph	8...39.6 gpm
Frequency at the end point FRP	[Hz]	1...10000			
Volumetric flow quantity monitoring					
Pulse length	[s]	0.002...2			
Pulse value		0.01...99990000 l			
Temperature monitoring					
Measuring range	[°F]	-4...194			

# SM8621



## Magnetic-inductive flow meter

SMN11XGXFRKG/US-100

Display range	[°F]	-43.6...233.6
Resolution	[°F]	0.1
Set point SP	[°F]	-3.3...194
Reset point rP	[°F]	-4...193.3
Analogue start point	[°F]	-4...154.4
Analogue end point	[°F]	35.6...194
In steps of	[°F]	0.1

### Accuracy / deviations

Flow monitoring		
Accuracy (in the measuring range)		$\pm (0,8 \% MW + 0,2 \% MEW)$
Repeatability		$\pm 0,2 \% MEW$

Temperature monitoring		
Accuracy	[K]	$\pm 2,5 (Q > 5 \% MEW)$

### Response times

Flow monitoring		
Start-up delay	[s]	0...50
Response time	[s]	$< 0,25; (dAP = 0, T09)$
Damping process value dAP	[s]	0...5

Temperature monitoring		
Response time	[s]	15; $(Q > 10 \% MEW, T09)$

### Software / programming

Parameter setting options	hysteresis / window; normally open / normally closed; switching logic; current/pulse output; start-up delay; display can be deactivated; Display unit; frequency output	
---------------------------	---	--

### Interfaces

Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
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]	6
Supported DeviceIDs	Type of operation	DeviceID
	Default	964

### Operating conditions

Ambient temperature	[°F]	-4...140
Storage temperature	[°F]	-13...176
Protection		IP 65; IP 67

### Tests / approvals

EMC	DIN EN 60947-5-9	
Shock resistance	DIN IEC 68-2-27	20 g (11 ms)

# SM8621



## Magnetic-inductive flow meter

SMN11XGXFRKG/US-100

Vibration resistance	DIN IEC 68-2-6:	5 g (10...2000 Hz)
MTTF [years]		114
UL approval	UL Approval no.	I014
	File number UL	E174189
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

### Mechanical data

Weight [g]	777
Materials	stainless steel (1.4408/316); stainless steel (1.4404 / 316L); PC; PBT+PC-GF30
Materials (wetted parts)	stainless steel (1.4404 / 316L); PEEK; carbon fibre PEEK; FKM
Process connection	1" NPT DN25

### Displays / operating elements

Display	colour display 1,44", 128 x 128 pixels
	2 x LED, yellow

### 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



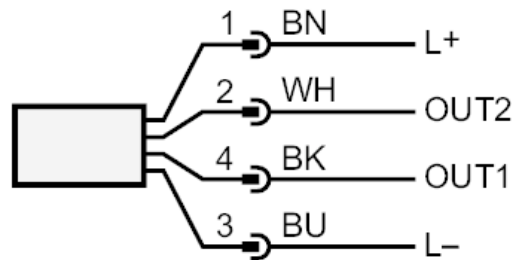
# SM8621



## Magnetic-inductive flow meter

SMN11XGXFRKG/US-100

### Connection



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

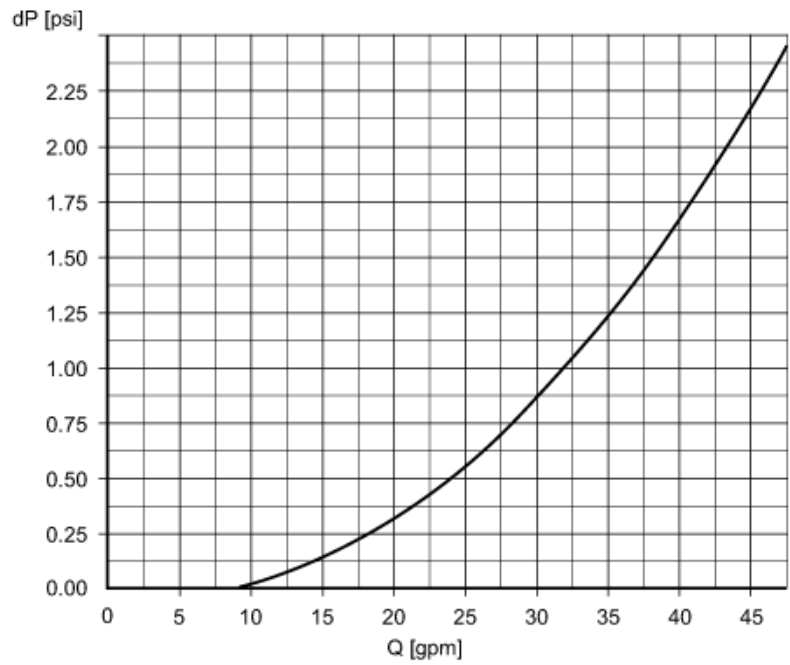
# SM8621

## Magnetic-inductive flow meter

SMN11XGXFRKG/US-100



### Diagrams and graphs



Pressure loss / volumetric flow quantity