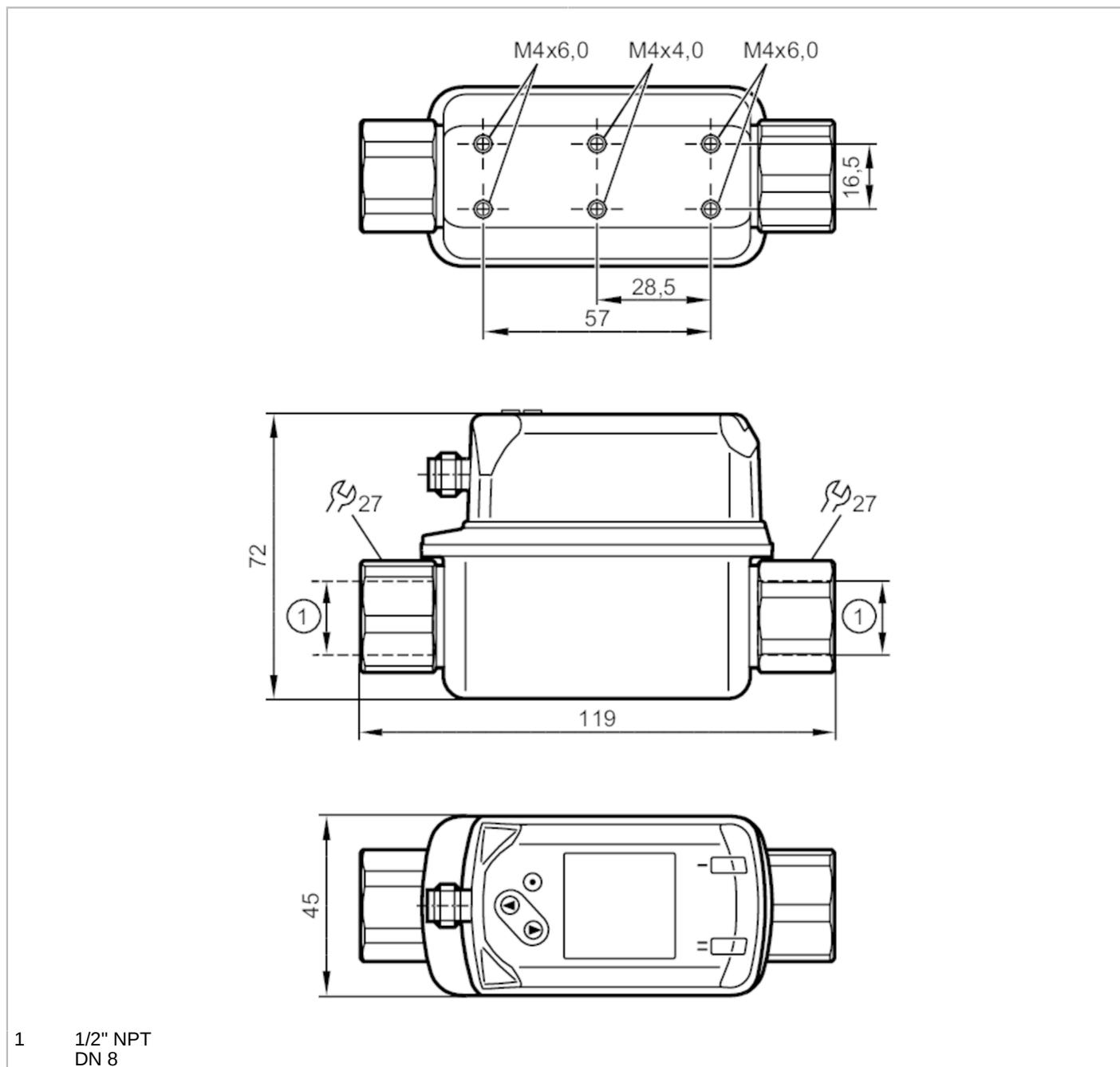


# SV4610



## Vortex flow meter with display

SVN12XXXIRKKG/US-100



1 1/2" NPT  
DN 8



Product characteristics	
Number of inputs and outputs	Number of digital outputs: 2
Measuring range	16...317 gph 0.26...5.28 gpm
Process connection	threaded connection 1/2" NPT internal thread DN8
Application	
Special feature	Gold-plated contacts
Application	for industrial applications
Media	water; glycol solutions; coolants
Medium temperature [°F]	14...194

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## Vortex flow meter with display

SVN12XXXIRKG/US-100

Pressure rating	12 bar	174 psi	1.2 MPa
Note on pressure rating	up to 40 °C		
MAWP for applications according to CRN [bar]	3.9		
<b>Electrical data</b>			
Operating voltage [V]	18...30 DC		
Current consumption [mA]	< 30		
Min. insulation resistance [MΩ]	100; (500 V DC)		
Protection class	III		
Reverse polarity protection	yes		
Power-on delay time [s]	< 3		
Measuring principle	Vortex		
<b>Inputs / outputs</b>			
Number of inputs and outputs	Number of digital outputs: 2		
<b>Outputs</b>			
Total number of outputs	2		
Output signal	switching signal; frequency 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]	2.5		
Permanent current rating of switching output DC [mA]	100		
Short-circuit protection	yes		
Overload protection	yes		
<b>Measuring/setting range</b>			
Measuring range	16...317 gph	0.26...5.28 gpm	
Display range	0...380 gph	0...6.34 gpm	
Resolution	1 gph	0.02 gpm	
Set point SP	19...317 gph	0.32...5.28 gpm	
Reset point rP	16...314 gph	0.26...5.24 gpm	
Frequency end point, FEP	63...317 gph	1.06...5.28 gpm	
In steps of	1 gph	0.02 gpm	
Frequency at the end point FRP [Hz]	100...1000		
Measuring dynamics	1:20		
<b>Temperature monitoring</b>			
Measuring range [°F]	14...194		
Display range [°F]	-22...230		
Resolution [°F]	1		
Set point SP [°F]	16...194		
Reset point rP [°F]	14...192		
In steps of [°F]	1		
Frequency start point, FSP [°F]	14...158		
Frequency end point, FEP [°F]	50...194		

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Frequency at the end point FRP	[Hz]	100...1000
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### Accuracy / deviations

Flow monitoring		
Accuracy (in the measuring range)		± 2 % MEW; (water)
Repeatability		± 0,5 % MEW

Temperature monitoring		
Accuracy	[K]	± 1

### Response times

Flow monitoring		
Response time	[s]	1; (dAP = 0)
Damping process value dAP	[s]	0...5
Temperature monitoring		
Dynamic response T05 / T09	[s]	T09 = 6

### Software / programming

Parameter setting options	hysteresis / window; normally open / normally closed; switching logic; frequency output; switch-on/switch-off delay; Damping; Display unit	
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### Interfaces

Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
Profiles	Smart Sensor - SSP 0	Generic Profiled Sensor
	Function	Device identification
	Function	Process data variable
	Function	Device diagnosis
SIO mode	yes	
Required master port type	A	
Process data analogue	2	
Process data binary	2	
Min. process cycle time	[ms]	3
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	default	486

### Operating conditions

Ambient temperature	[°F]	32...140
Note on ambient temperature	medium temperature < 176 °F medium temperature < 194 °F: 32...122 °F	
Storage temperature	[°F]	-4...176
Protection	IP 65; IP 67	

### Tests / approvals

EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	
Shock resistance	DIN EN 60068-2-27	5 g (11 ms)

# SV4610



## Vortex flow meter with display

SVN12XXXIRKG/US-100

Vibration resistance	DIN EN 60068-2-6	with water / 10...50 Hz 1 mm
		with water / 50...2000 Hz 2 g
MTTF [years]		342
UL approval	UL approval no.	I001
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

### Mechanical data

Weight [g]		481.5
Housing		rectangular
Dimensions [mm]		119 x 45 x 72
Materials	stainless steel (316L/1.4404); PC; PBT+PC-GF30; PPS; TPE-U	
Materials (wetted parts)	stainless steel (316L/1.4404); ETFE; PA 6T; PPS; FKM	
Tightening torque [Nm]		30
Process connection	threaded connection 1/2" NPT internal thread DN8	

### 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



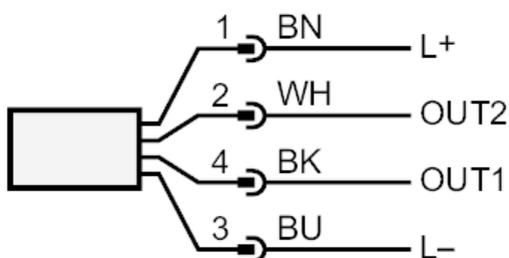
# SV4610



## Vortex flow meter with display

SVN12XXXIRKG/US-100

### Connection



- OUT1: Flow monitoring  
- switching output  
- frequency output  
- IO-Link
- OUT2: flow monitoring and temperature monitoring  
- switching output  
- frequency output  
colours to DIN EN 60947-5-2

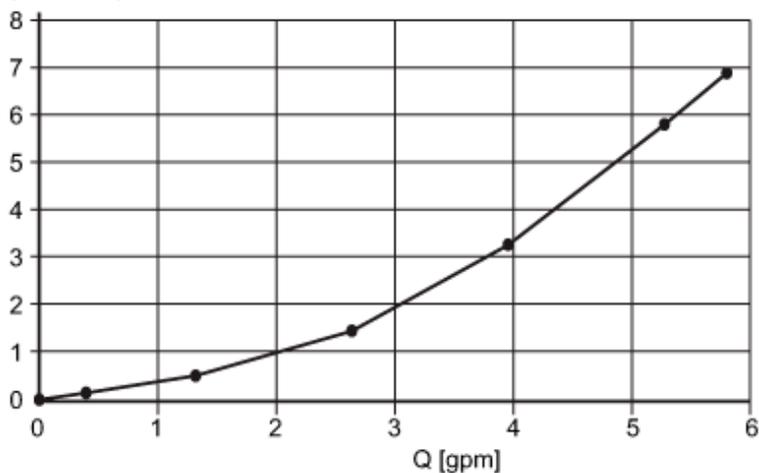
Core colours :

- BK = black  
BN = brown  
BU = blue  
WH = white

### Diagrams and graphs

#### Pressure loss

dP [psi]  
(DN8, 25 °C)



dP Pressure loss

Q volumetric flow quantity

# SV4610



## Vortex flow meter with display

SVN12XXXIRKG/US-100

pressure rating (bar)

