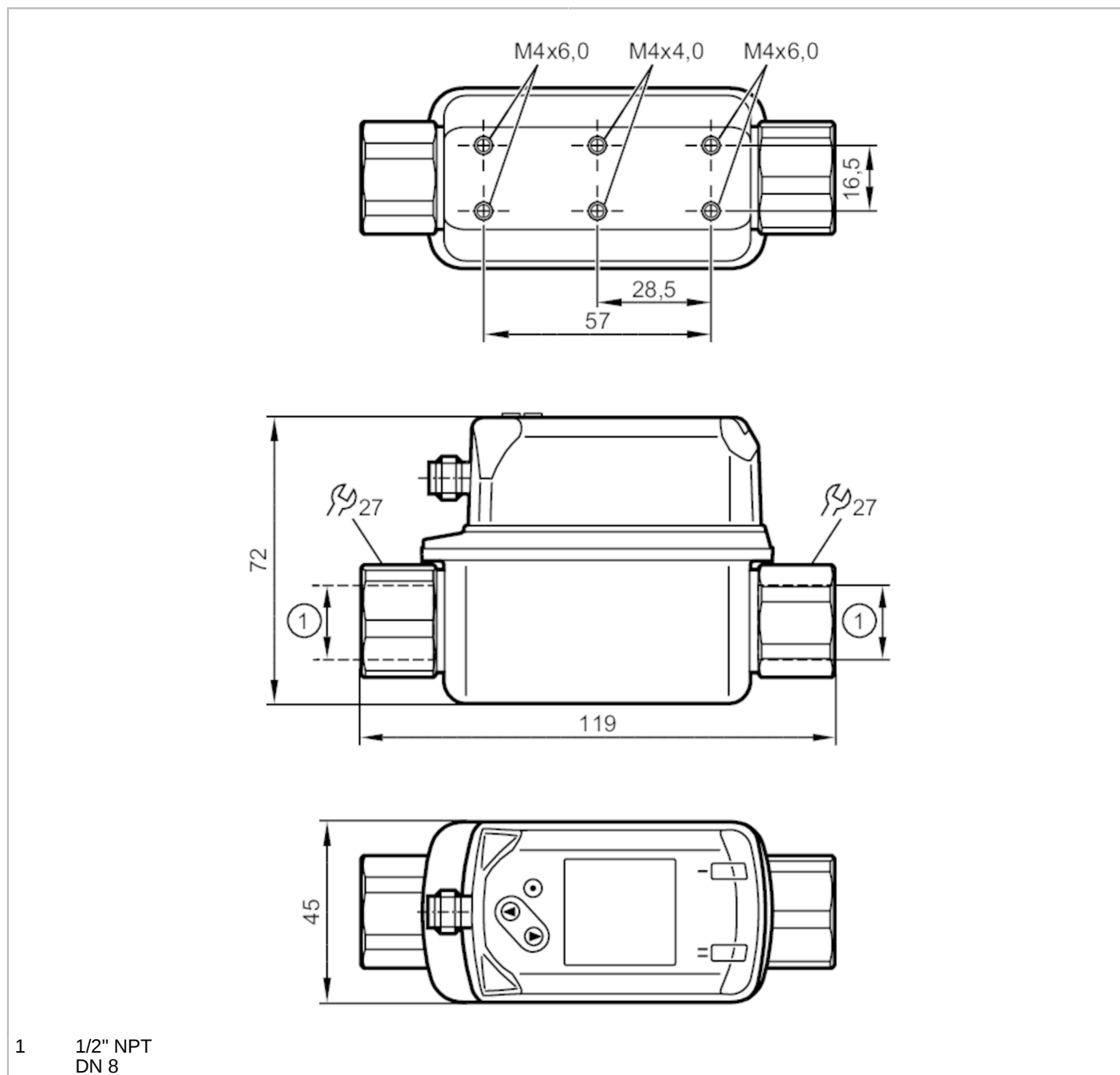


# SV4610



## Vortex flow meter with display

SVN12XXXIRKG/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 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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Pressure rating	[bar]	12
Pressure rating	[psi]	174
Note on pressure rating		up to 40 °C
MAWP (for applications according to CRN)	[bar]	3.9

### Electrical data

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

### Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2
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### Outputs

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

### Measuring/setting range

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

### Temperature monitoring

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: Process Data Variable; Device Identification, 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	Type of operation Default DeviceID 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)
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

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## Vortex flow meter with display

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Pressure Equipment Directive      Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request

Mechanical data	
Weight [g]	481.5
Materials	stainless steel (1.4404 / 316L); PC; PBT+PC-GF30; PPS; TPE-U
Materials (wetted parts)	stainless steel (1.4404 / 316L); ETFE; PA 6T; PPS; FKM
Tightening torque [Nm]	30
Process connection	threaded connection 1/2" NPT DN8

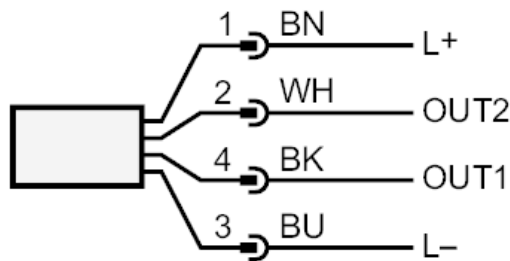
Remarks	
Remarks	MW = measured value MEW = Final value of the measuring range
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



### 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

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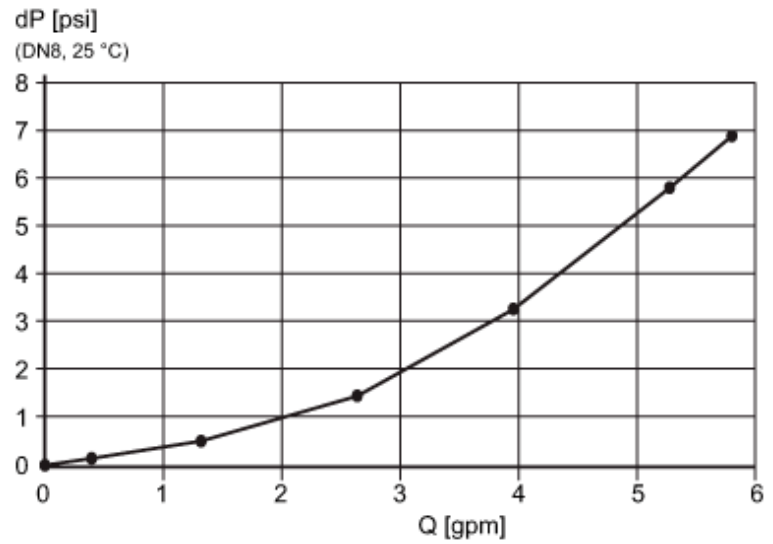


## Vortex flow meter with display

SVN12XXXIRKG/US-100

### Diagrams and graphs

Pressure loss



dP Pressure loss

Q volumetric flow quantity

pressure rating (bar)

