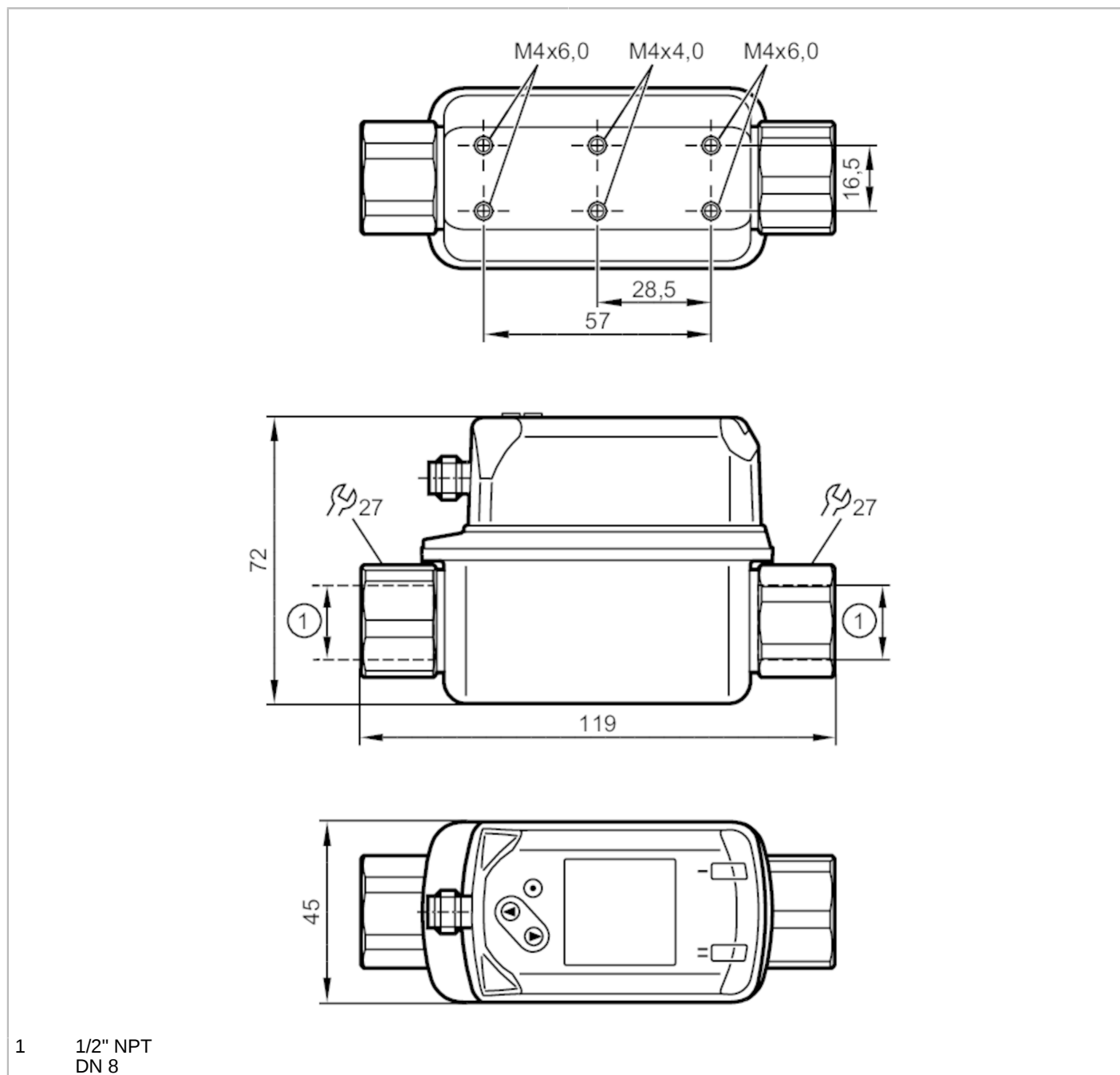


SV4610



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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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		
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		
Measuring principle	Vortex		
Inputs / outputs			
Number of inputs and outputs	Number of digital outputs: 2		
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	<table border="1"> <thead> <tr> <th>Type of operation</th> <th>DeviceID</th> </tr> </thead> <tbody> <tr> <td>default</td> <td>486</td> </tr> </tbody> </table>	Type of operation	DeviceID	default	486
Type of operation	DeviceID				
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)
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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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

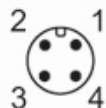
Display		colour display 1,44", 128 x 128 pixels 2 x LED, yellow
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Remarks

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



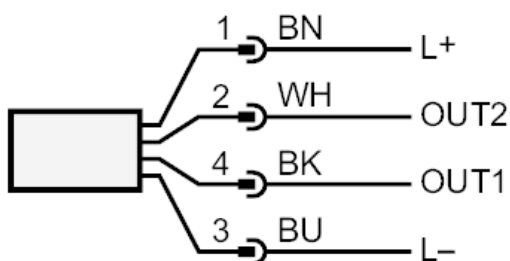
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Connection



- 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

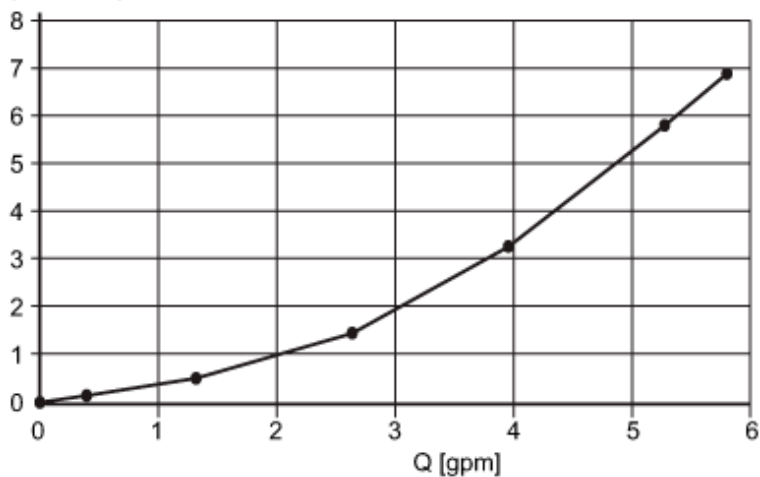
Core colours :

- 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

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pressure rating (bar)

