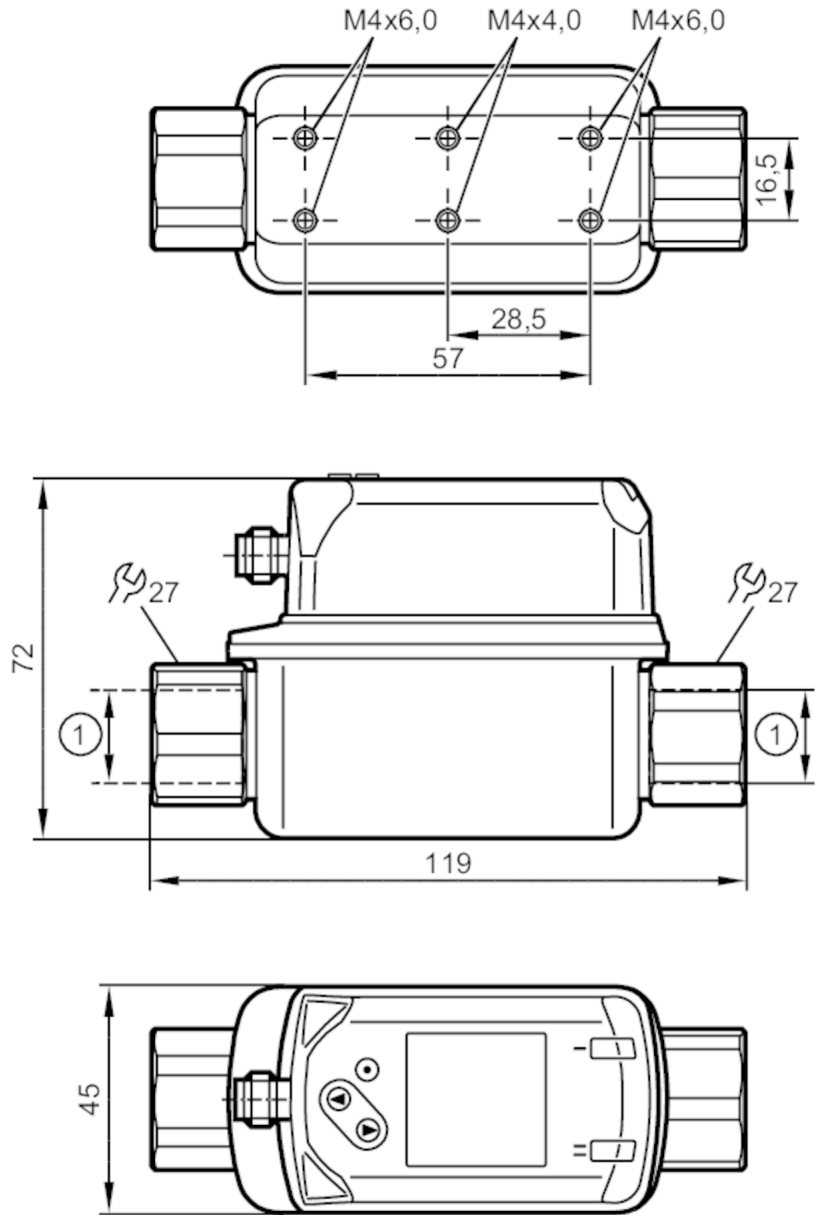


SV4610



SV vortex flowmeters with display for water based media

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 Internal thread DN8	

Application

System	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 / closed; (configurable)		
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
Accuracy / deviations		
Flow monitoring		
Accuracy (in the measuring range)		$\pm 2\%$ MEW; (water)
Repeatability		$\pm 0,5\%$ MEW
Temperature monitoring		
Accuracy	[K]	± 1
Reaction 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 / closed; switching logic; Frequency output; switch-on/switch-off delay; Damping; Display unit
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 class		A
Process data analog		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 number	I001

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Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request
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Mechanical data

Weight	[g]	481.5
Housing		rectangular
Dimensions	[mm]	119 x 45 x 72
Material		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 Internal thread DN8

Displays / operating elements

Display	Color 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



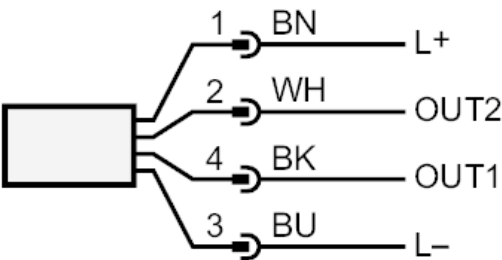
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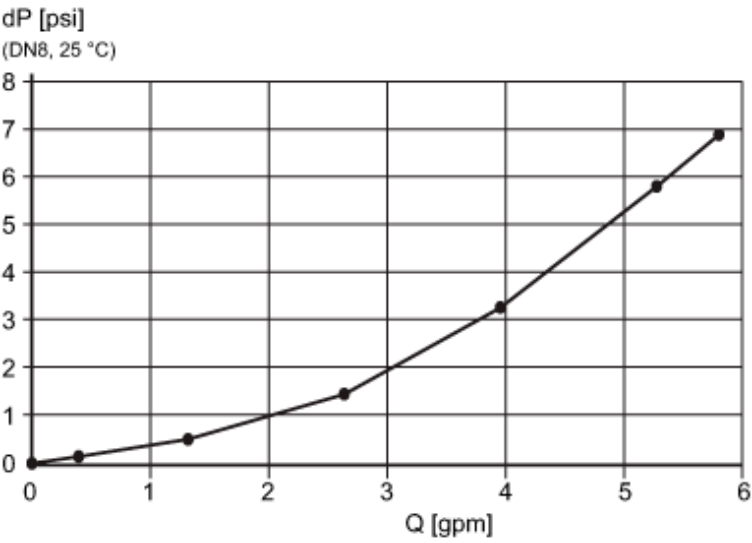
Connection



- OUT1:
- Flow monitoring
 - Switching output
 - Frequency output
 - IO-Link
- OUT2:
- flow monitoring and temperature monitoring
 - Switching output
 - Frequency output
- Colors to DIN EN 60947-5-2
- Core colors :
- BK = black
- BN = brown
- BU = blue
- WH = white

Diagrams and graphs

Pressure loss



dP Pressure loss

Q volumetric flow quantity

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pressure rating (bar)

