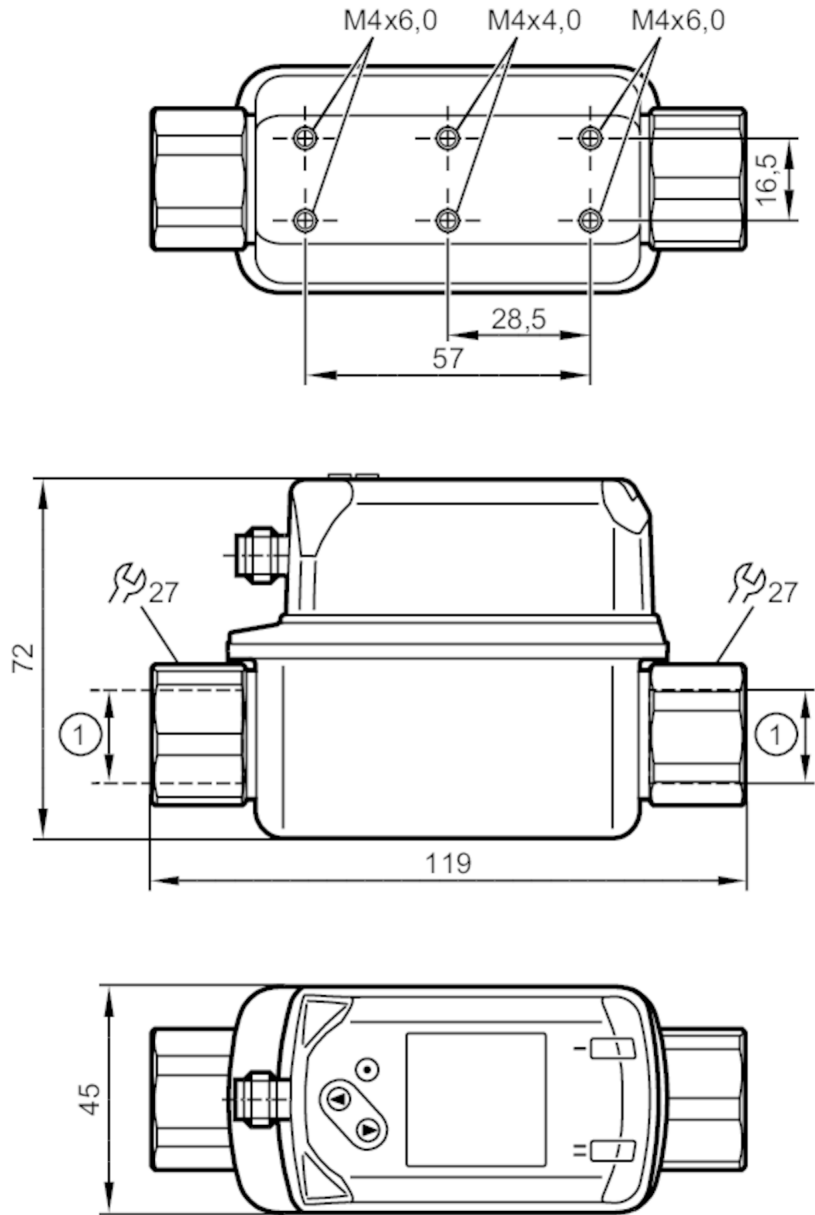


SV5610



SV vortex flowmeters with display for water based media

SVN12XXXIRKG/US-100



1: 1/2" NPT
DN10



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2	
Measuring range	32...634 gph	0.55...10.55 gpm
Process connection	threaded connection 1/2" NPT Internal thread DN10	

Application

System	gold-plated contacts		
Application	for industrial applications		
Media	water; glycol solutions; Coolants		
Pressure rating	12 bar	174 psi	1.2 MPa



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Note on pressure rating		up to 40 °C
MAWP (for applications according to CRN)	[bar]	4.8
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	32...634 gph	0.55...10.55 gpm
Display range	0...760 gph	0...12.7 gpm
Resolution	2 gph	0.05 gpm
Set point SP	38...634 gph	0.65...10.55 gpm
Reset point rP	32...628 gph	0.55...10.45 gpm
Frequency end point, FEP	126...634 gph	2.1...10.55 gpm
In steps of	2 gph	0.05 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 490
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]	468
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 DN10

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



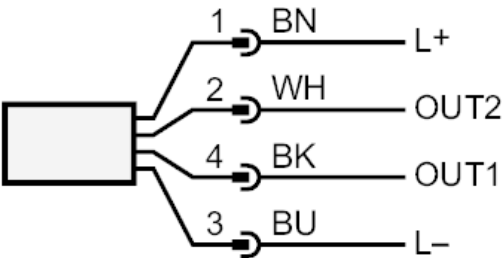
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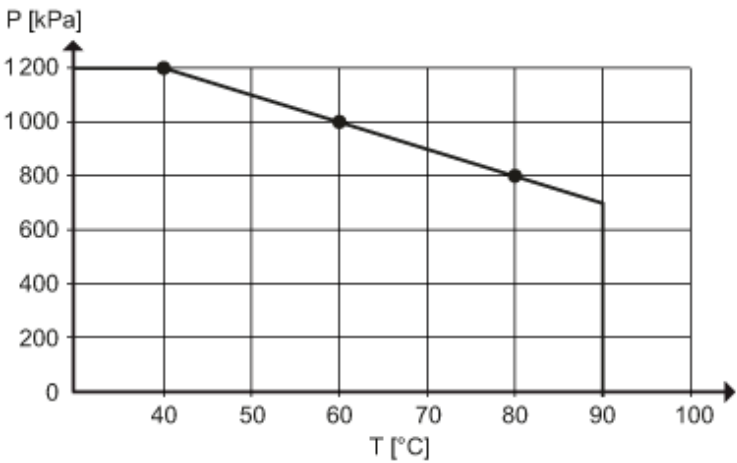
Connection



- 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 rating (bar)



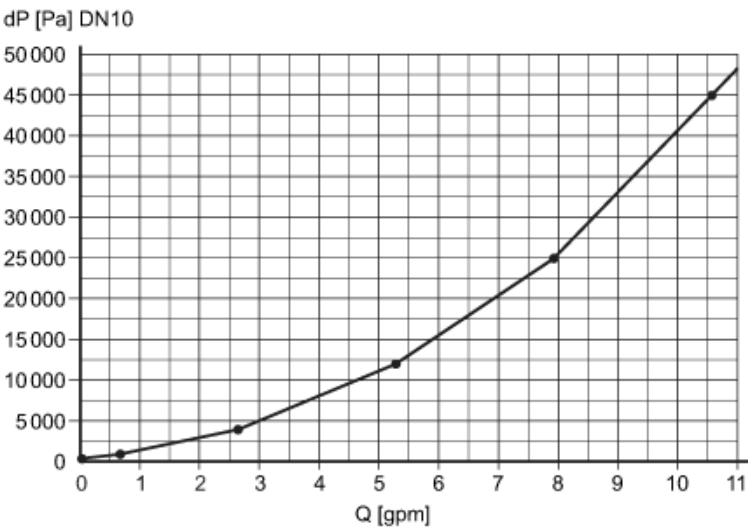
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Pressure loss



dP Pressure loss
Q volumetric flow quantity