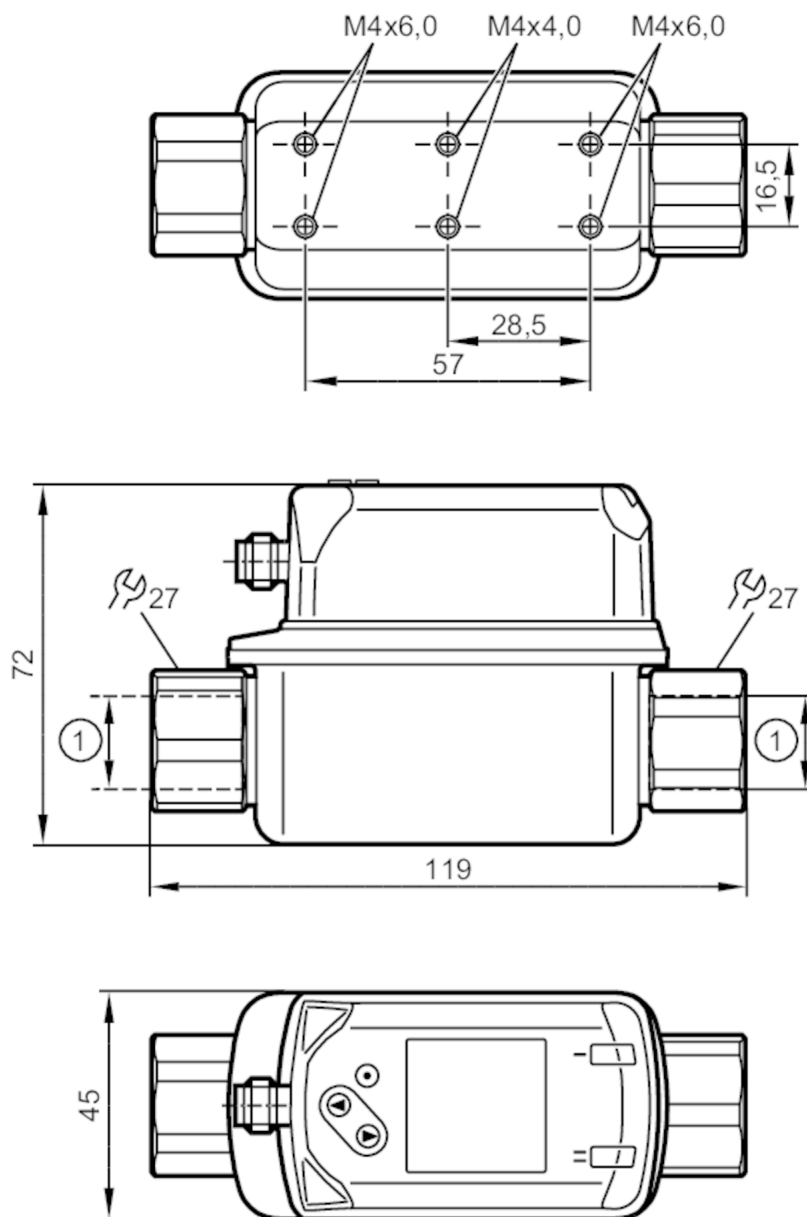


SV0527



SV vortex flowmeters with display for water based media

SVN12XXXIRKG/US



1 1/2" NPT
DN 8

Product characteristics

Number of inputs and outputs	Number of digital outputs: 2	
Measuring range	1...20 l/min	0.06...1.2 m³/h
Process connection	threaded connection 1/2" NPT DN8	

Application

System	gold-plated contacts	
Application	for industrial applications	
Media	water	
Medium temperature [°C]	-10...90	
Pressure rating [bar]	12	
Pressure rating [MPa]	1.2	



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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 / 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	1...20 l/min	0.06...1.2 m³/h
Display range	0...24 l/min	0...1.44 m³/h
Resolution	0.1 l/min	0.005 m³/h
Set point SP	1.2...20 l/min	0.07...1.2 m³/h
Reset point rP	1...19.8 l/min	0.06...1.19 m³/h
Frequency end point, FEP	4...20 l/min	0.24...1.2 m³/h
In steps of	0.1 l/min	0.005 m³/h
Frequency at the end point FRP	[Hz]	100...1000
Measuring dynamics		1:20

Temperature monitoring

Measuring range	[°C]	-10...90
Display range	[°C]	-30...110
Resolution	[°C]	0.5
Set point SP	[°C]	-9...90
Reset point rP	[°C]	-10...89
In steps of	[°C]	0.5
Frequency start point, FSP	[°C]	-10...70
Frequency end point, FEP	[°C]	10...90
Frequency at the end point FRP	[Hz]	100...1000



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Accuracy / deviations

Flow monitoring

Accuracy (in the measuring range)	$\pm 2\%$ MEW
Repeatability	$\pm 0,5\%$ MEW

Temperature monitoring

Accuracy [K]	± 1
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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
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Software / programming

Parameter setting options	hysteresis / window; normally open / 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 class	A				
Process data analog	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>484</td> </tr> </tbody> </table>	Type of operation	DeviceID	default	484
Type of operation	DeviceID				
default	484				

Operating conditions

Ambient temperature [°C]	0...60
Note on ambient temperature	medium temperature < 80 °C medium temperature < 90 °C: 0...50 °C
Storage temperature [°C]	-20...80
Protection	IP 65; IP 67

Tests / approvals

EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-3	
CPA approval	model number	001VO
	accuracy class	-
	maximum allowable error	$\pm 2\%$ FS
	Q (min)	0,09 m ³ /h
	Q (t)	0,24 m ³ /h
	Q (max)	1,2 m ³ /h
Shock resistance	DIN EN 60068-2-27	5 g (11 ms)

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Vibration resistance	DIN EN 60068-2-6	with water / 10...50 Hz 1 mm
		with water / 50...2000 Hz 2 g
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data

Weight	[g]	486.3
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 DN8	

Remarks

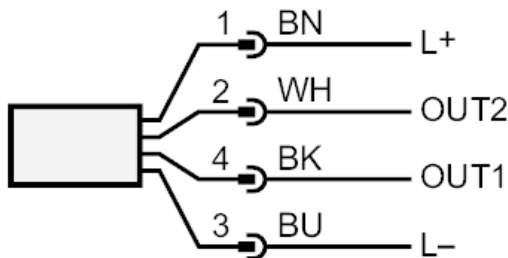
Remarks	MW = Measured value
	MEW = Final value of the measuring range
Pack quantity	1 pcs.

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
- Colors to DIN EN 60947-5-2
- Core colors :
- BK = black
- BN = brown
- BU = blue
- WH = white

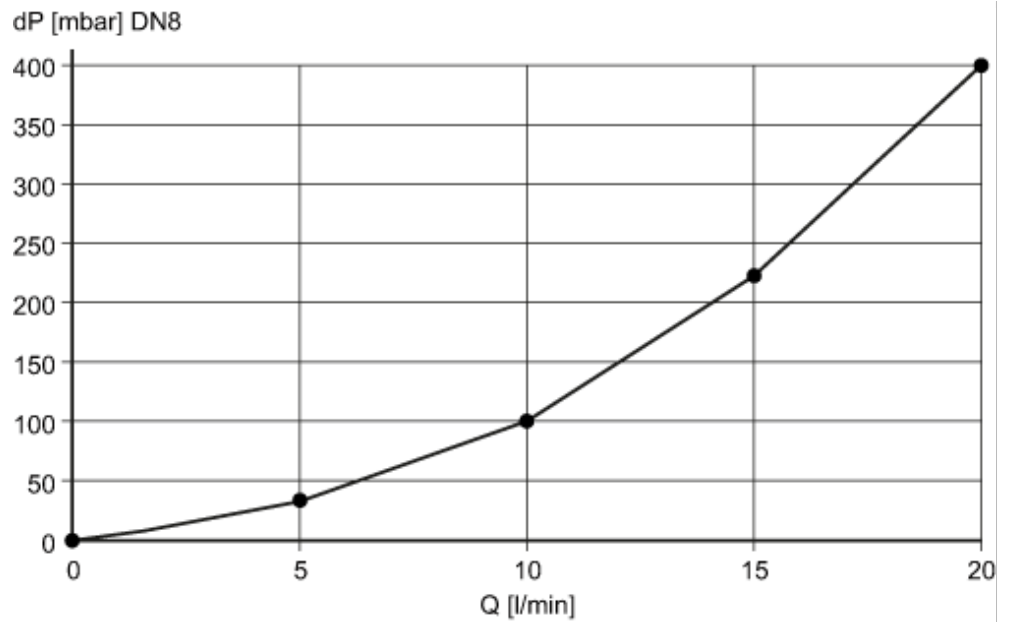


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Diagrams and graphs

Pressure loss



dP Pressure loss

Q volumetric flow quantity

pressure rating (bar)

