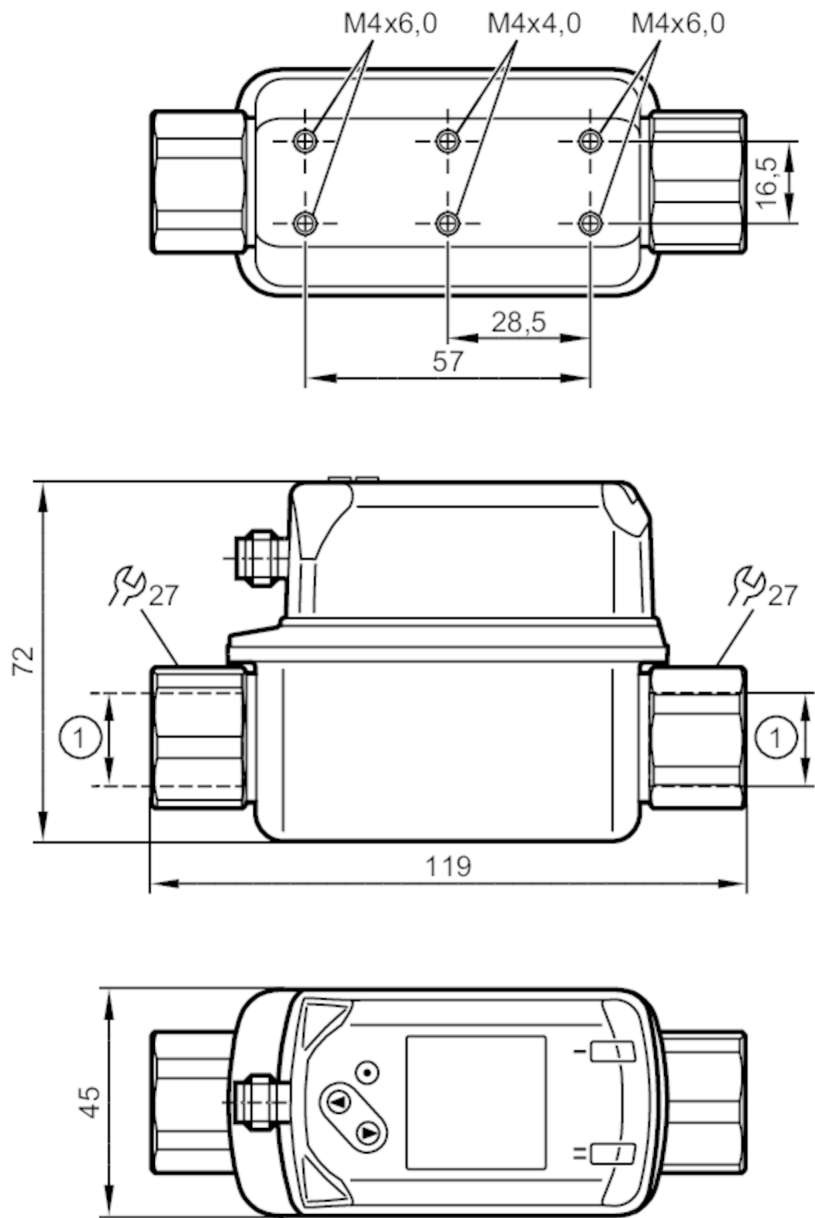


SV0527



Vortex flow meter with display

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 internal thread DN8	
Application		
Special feature	Gold-plated contacts	
Application	for industrial applications	
Media	water	
Medium temperature [°C]	-10...90	
Pressure rating	12 bar	1.2 MPa
Note on pressure rating	up to 40 °C	



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MAWP (for applications according to CRN)	[bar]	3.9
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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
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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	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)		± 2 % MEW
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	
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	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	± 2 % FS
	Q (min)	0,09 m³/h
	Q (t)	0,24 m³/h
	Q (max)	1,2 m³/h
Shock resistance	DIN EN 60068-2-27	5 g (11 ms)



Vortex flow meter with display

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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
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

Remarks

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

Electrical connection

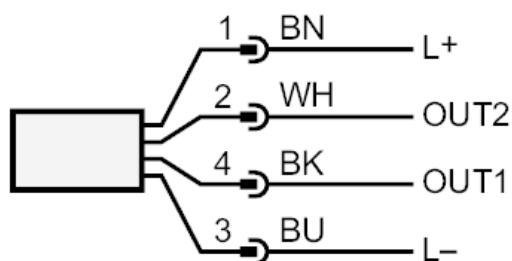
Connector: 1 x M12; coding: A; Contacts: gold-plated



Vortex flow meter with display

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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

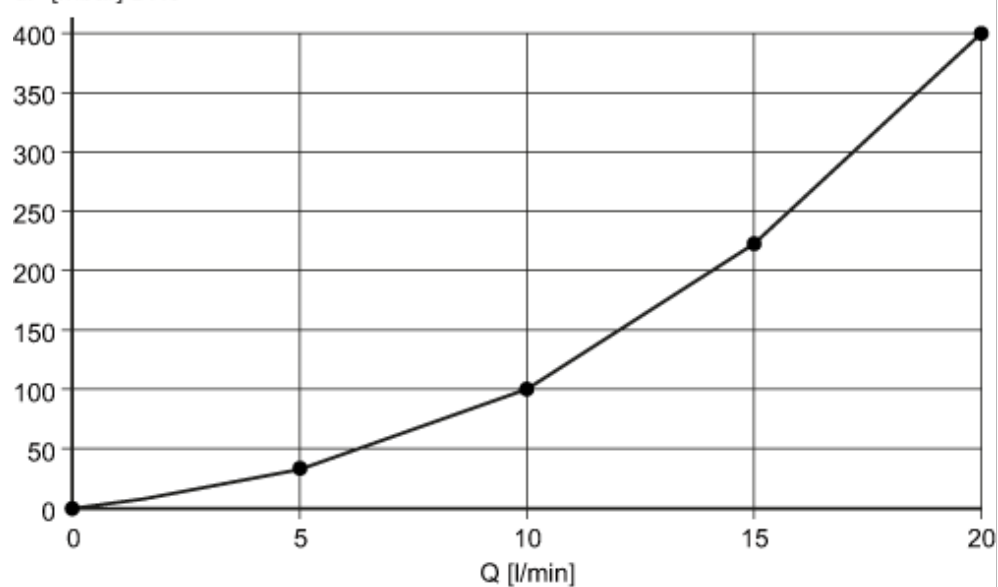
Core colours :

BK = black
 BN = brown
 BU = blue
 WH = white

Diagrams and graphs

Pressure loss

dP [mbar] DN8



dP Pressure loss

Q volumetric flow quantity

SV0527



Vortex flow meter with display

SVN12XXXIRKG/US

pressure rating (bar)

