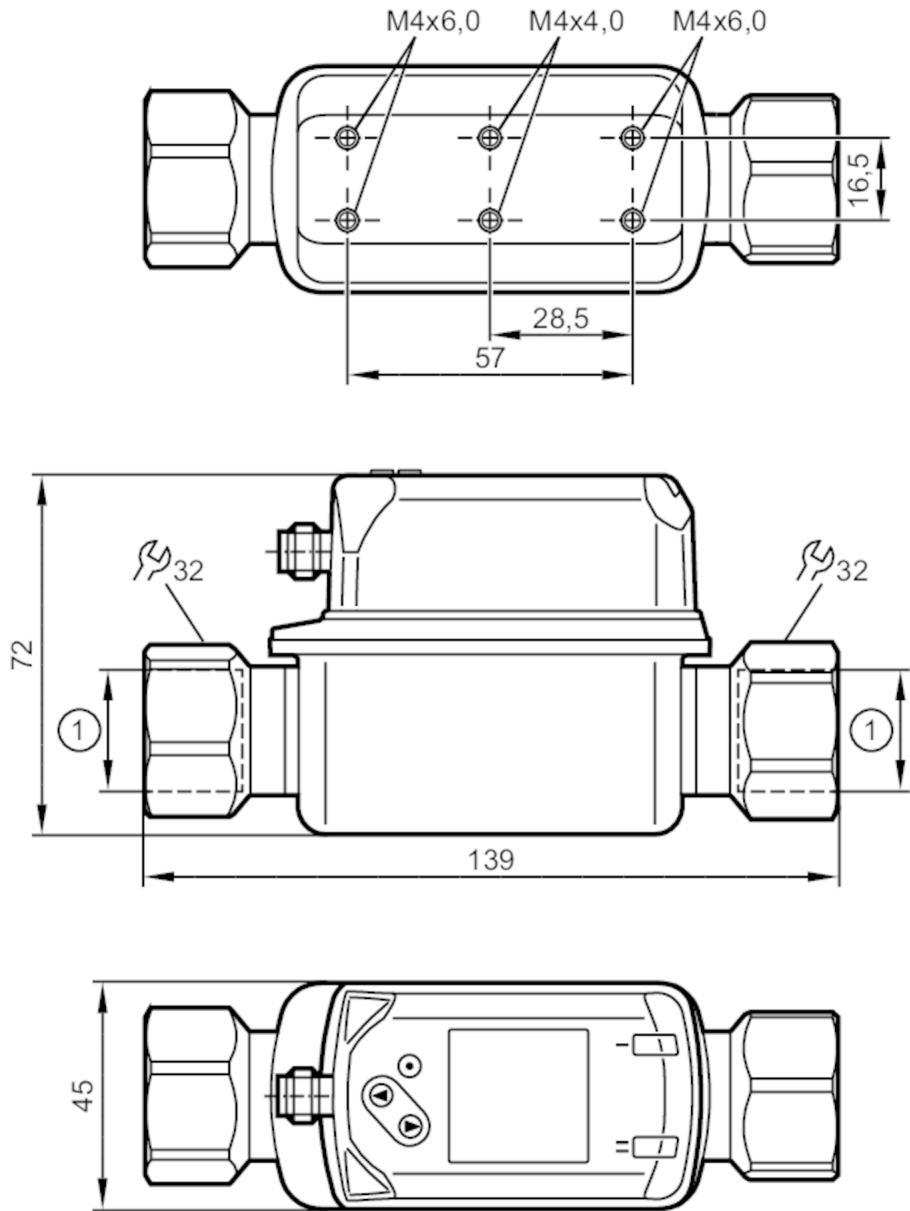


SV7610



Vortex flow meter with display

SVN34XXXIRKG/US-100



1 3/4" NPT
DN 20



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2	
Measuring range	80...1585 gph	1.3...26.4 gpm
Process connection	threaded connection 3/4" NPT internal thread DN20	

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]	4.3		

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	80...1585 gph	1.3...26.4 gpm
Display range	0...1900 gph	0...31.7 gpm
Resolution	5 gph	0.1 gpm
Set point SP	95...1585 gph	1.6...26.4 gpm
Reset point rP	80...1570 gph	1.3...26.2 gpm
Frequency end point, FEP	315...1585 gph	5.3...26.4 gpm
In steps of	5 gph	0.1 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)		$\pm 2\%$ MEW; (water)
Repeatability		$\pm 0,5\%$ MEW

Temperature monitoring

Accuracy	[K]	± 1
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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	Type of operation	DeviceID
	default	494

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

SV7610



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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]	505.5
Housing		rectangular
Dimensions	[mm]	139 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 3/4" NPT internal thread DN20

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

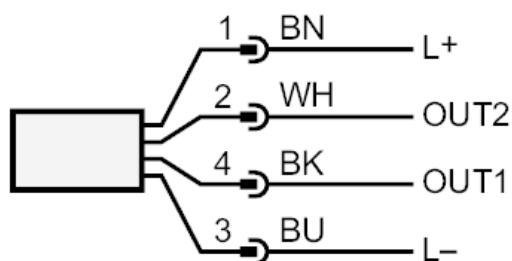
Connector: 1 x M12; coding: A; Contacts: gold-plated



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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

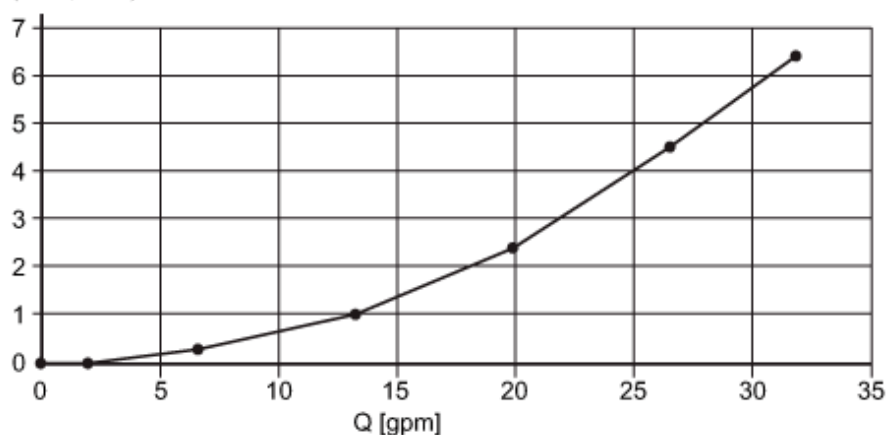
Core colours :

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

Diagrams and graphs

Pressure loss

dP [psi]
 (DN20, 25 °C)



dP Pressure loss

Q volumetric flow quantity

SV7610

Vortex flow meter with display

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pressure rating (bar)

