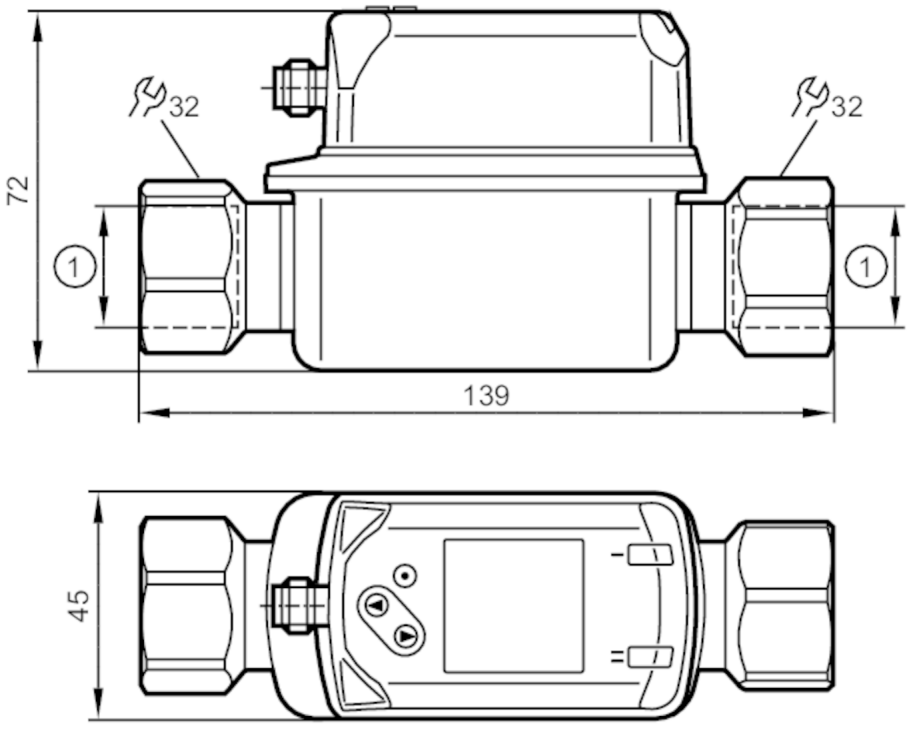
SV7610

Vortex flowmeters with display, Type SV

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 DN20	
Application			
System		gold-plated contacts	
Application		for industrial applications	
Media		water	
Medium temperature	[°F]	14...194	
Pressure rating	[bar]	12	
Pressure rating	[psi]	174	
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	

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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		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	
Frequency at the end point FRP	[Hz]	100...1000	
Accuracy / deviations			
Flow monitoring			
Accuracy (in the measuring range)		± 2 % MEW	
Repeatability		± 0,5 % MEW	
Temperature monitoring			
Accuracy	[K]	± 1	

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Reaction times			
Flow monitoring			
Response time	[s]	1; (dAP = 0)	
Damping for the switching output 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 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 number	I001
Pressure equipment directive		sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data			
Weight	[g]	505.5	
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 3/4" NPT DN20	

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Remarks

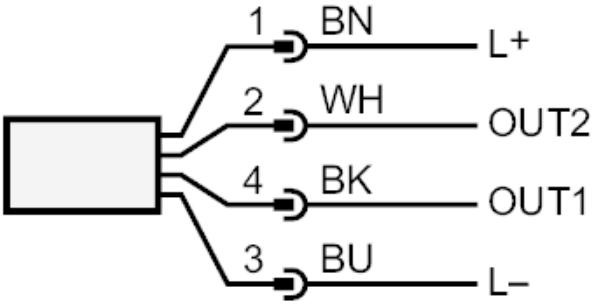
Remarks	MW = Measured value
	MEW = Final value of the measuring range
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; Contacts: gold-plated



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

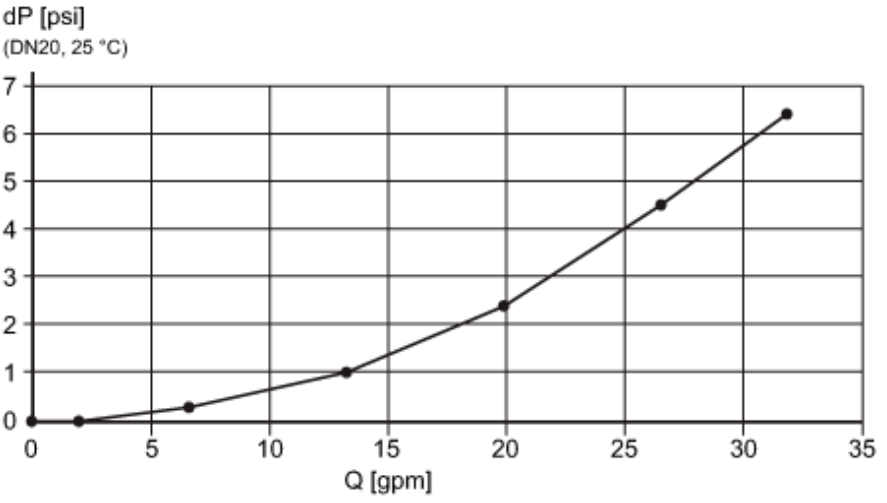
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Diagrams and graphs

Pressure loss



dP Pressure loss

Q volumetric flow quantity

pressure rating (bar)

