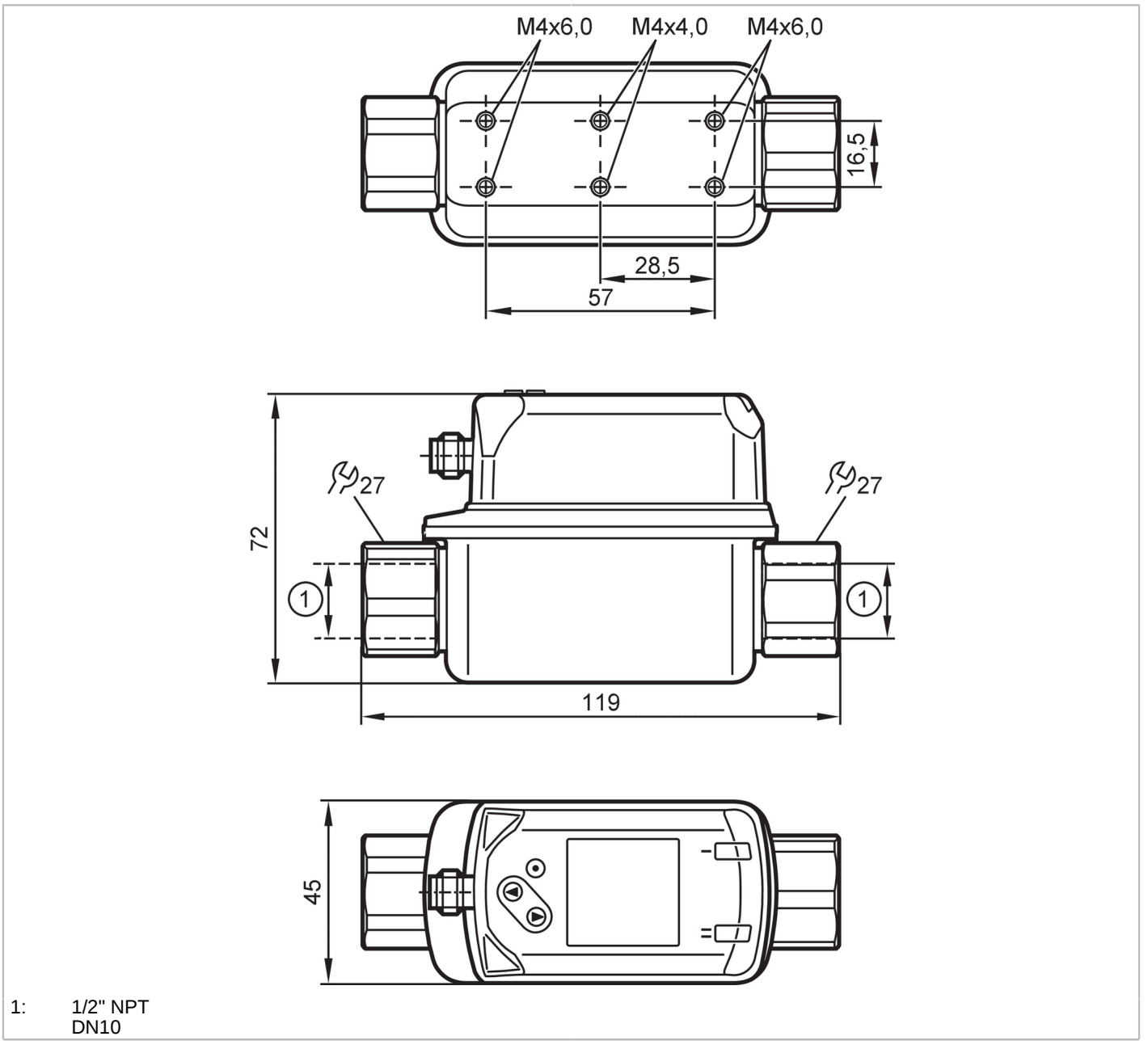
SV5610

Vortex flow meter with display

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			
Special feature	Gold-plated contacts		
Application	for industrial applications		
Media	water; glycol solutions; coolants		
Medium temperature [°F]	14...194		
Pressure rating	12 bar	174 psi	1.2 MPa
Note on pressure rating	up to 40 °C		

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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 / 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		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	
Frequency at the end point FRP	[Hz]	100...1000	

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Accuracy / deviations			
Flow monitoring			
Accuracy (in the measuring range)		± 2 % MEW; (water)	
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 - SSP 0	Generic Profiled Sensor
		Function	Device identification
		Function	Process data variable
		Function	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	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	

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UL approval		UL approval no.	I001
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data

Weight	[g]	468
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 DN10

Displays / operating elements

Display		colour display 1,44", 128 x 128 pixels
		2 x LED, yellow

Remarks

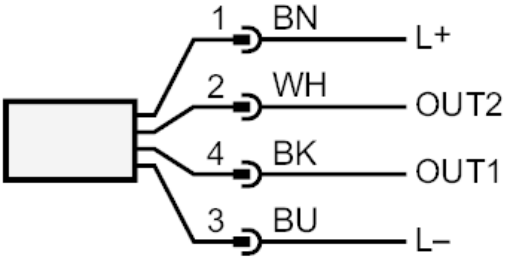
Remarks	MW = measured value
	MEW = Final value of the measuring range
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, 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 colours :
BK =	black
BN =	brown
BU =	blue
WH =	white

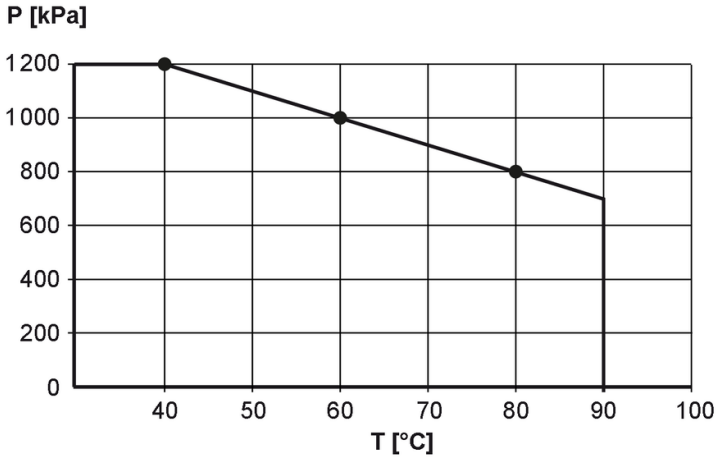
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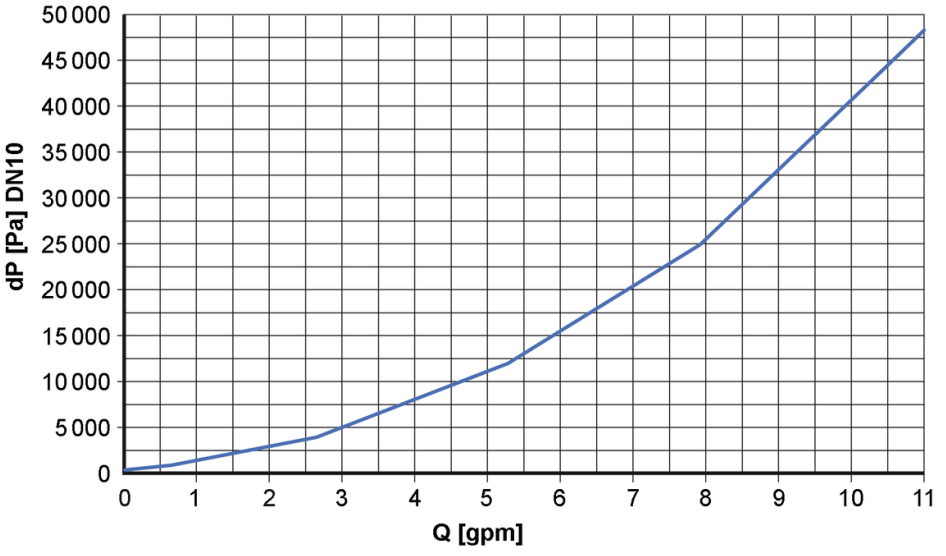
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Diagrams and graphs

pressure rating (bar)



Pressure loss



dP Pressure loss

Q volumetric flow quantity