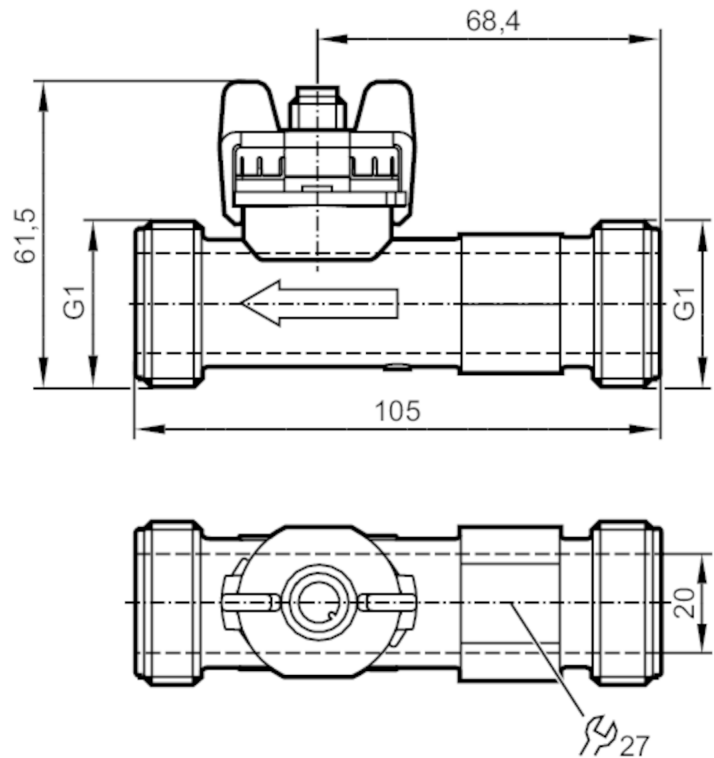


SV7050



Vortex flow meter

SVM11XXD0KG/US-100



Product characteristics		
Number of inputs and outputs	Number of analog outputs: 1	
Measuring range	5...85 l/min	0.265...4.509 m/s
Process connection	threaded connection G 1 external thread DN20	
Application		
System	gold-plated contacts	
Measuring element	1 x Pt 1000; (to DIN EN 60751, class B)	
Application	for industrial applications	
Installation	connection to pipe by means of an adapter	
Media	water; glycol solutions; Coolants	
Medium temperature [°C]	-40...100	
Min. bursting pressure	25 bar	2.5 MPa
Pressure rating	12 bar	1.2 MPa
Note on pressure rating	up to 40 °C	
Electrical data		
Operating voltage [V]	8...33 DC	
Min. insulation resistance [MΩ]	100; (500 V DC)	
Protection class	III	
Power-on delay time [s]	< 2	
Measuring principle	Vortex	



Vortex flow meter

SVM11XXD0KG/US-100

Inputs / outputs		
Number of inputs and outputs		Number of analog outputs: 1
Outputs		
Total number of outputs		1
Output signal		analog signal
Number of analog outputs		1
Analog current output [mA]		4...20; (water: Q [l/min] = 5,313 x (I - 4 mA); water-glycol: Q [l/min] = 5,313 x (I - 4 mA) - Qo see Figure 2)
Max. load [Ω]		< (Ub - 8 V) / 20 mA; Ub = 24 V: 800
Measuring/setting range		
Measuring range		5...85 l/min 0.265...4.509 m/s
Temperature monitoring		
Internal heating temperature probe		1 K/mW
Measuring range [°C]		-40...100
Accuracy / deviations		
Flow monitoring		
Accuracy (in the measuring range)		Q < 50 % MEW: < 1 % MEW / Q > 50 % MEW: < 2 % MW; (water)
Repeatability		0,2; (% of the final value)
Temperature monitoring		
Accuracy [K]		± 0,3 ± 0,005 x T
Reaction times		
Flow monitoring		
Response time [s]		0.5
Operating conditions		
Ambient temperature [°C]		-15...85
Storage temperature [°C]		-30...85
Protection		IP 65
Cavitation		P(absolute) discharge / P(difference) > 5.5 to avoid cavitation
Tests / approvals		
EMC		EN 61326-2-3
Shock resistance		DIN EN 60068-2-27 30 g (11 ms)
Vibration resistance		DIN EN 60068-2-6 with water / 10...61 Hz 1 mm with water / 61...2000 Hz 2 g
MTTF [years]		380
Pressure equipment directive		sound engineering practice; can be used for group 2 fluids; group 1 fluids on request
Mechanical data		
Weight [g]		105.5
Housing		rectangular
Dimensions [mm]		105 x 30.22 x 61.5
Material		PA 6T
Materials (wetted parts)		ETFE; PA 6T; FKM
Tightening torque [Nm]		12

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Vortex flow meter

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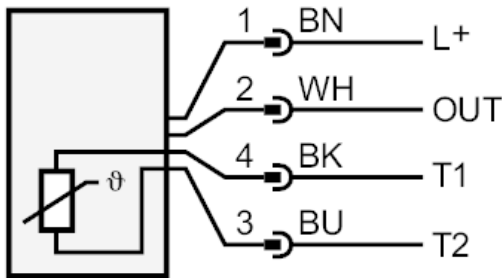
Process connection	threaded connection G 1 external thread DN20	
Displays / operating elements		
Display		Color display 1,44", 128 x 128 pixels
		2 x LED, yellow
Remarks		
Remarks	MW = Measured value	
	MEW = Final value of the measuring range	
Pack quantity	1 pcs.	

Electrical connection

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



Connection



OUT: analog output
T1 / T2: Pt1000
Colors to DIN EN 60947-5-2
Core colors :
BK = black
BN = brown
BU = blue
WH = white

SV7050

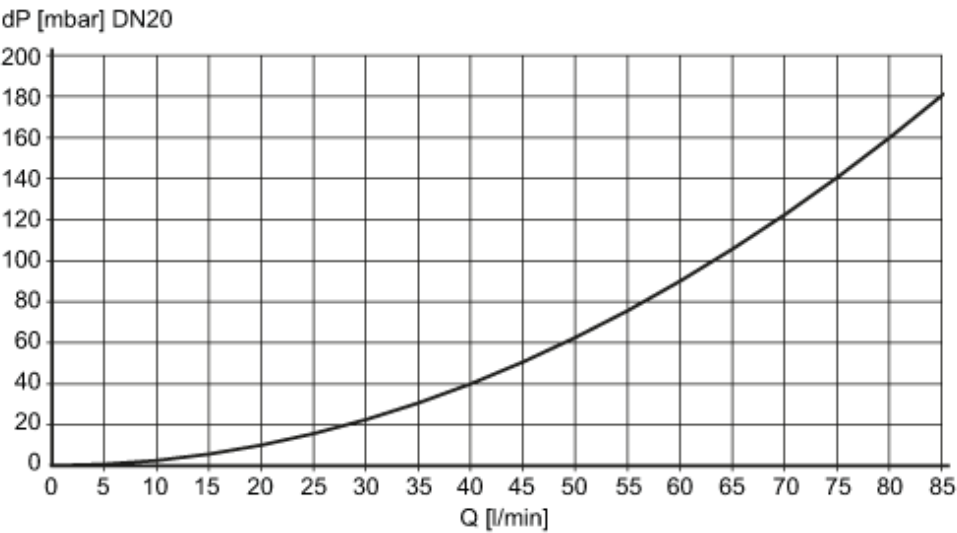


Vortex flow meter

SVM11XXD0KG/US-100

Diagrams and graphs

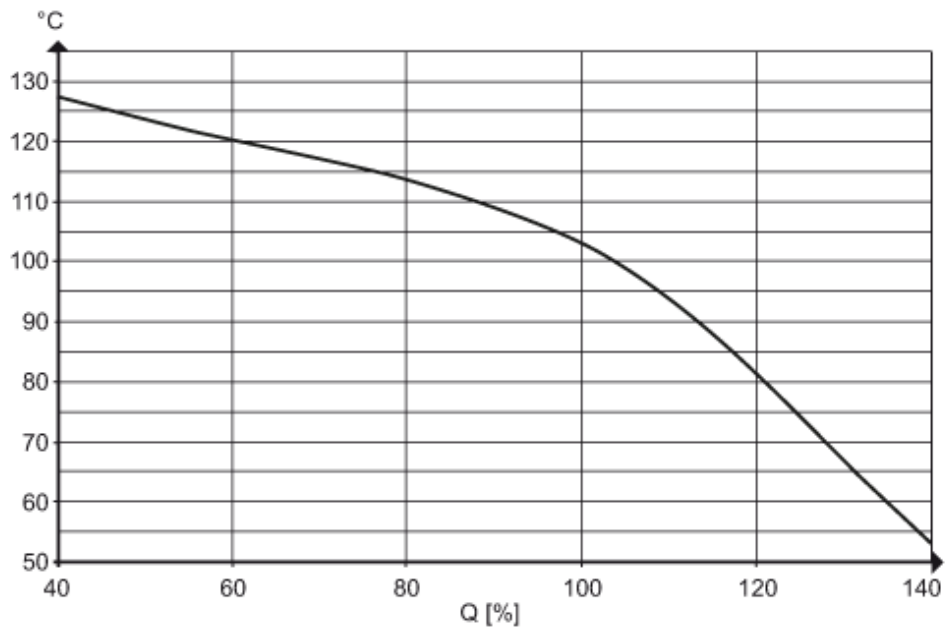
Pressure loss



dP Pressure loss

Q volumetric flow quantity

Minimum lifetime 10 years
referred to flow and high medium
temperatures

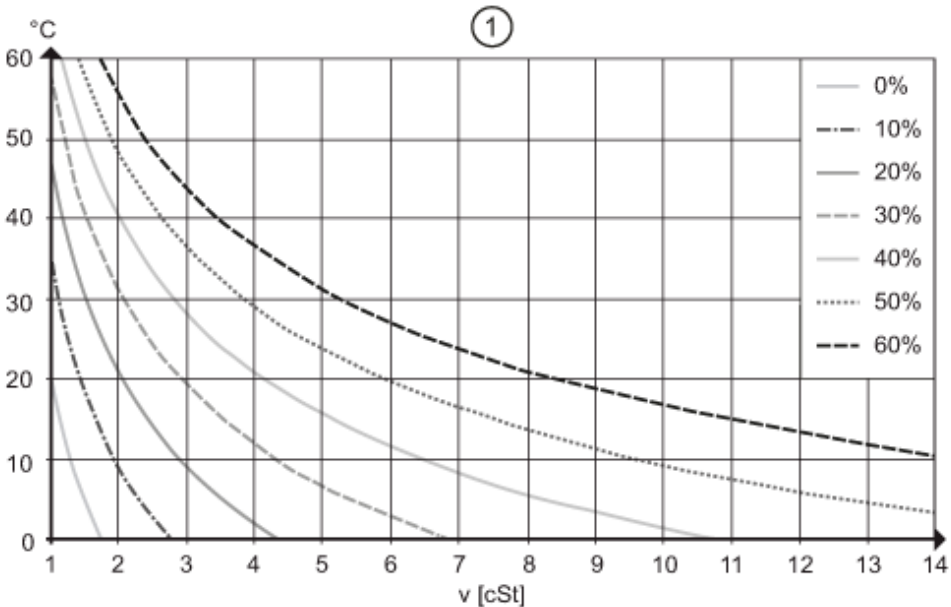




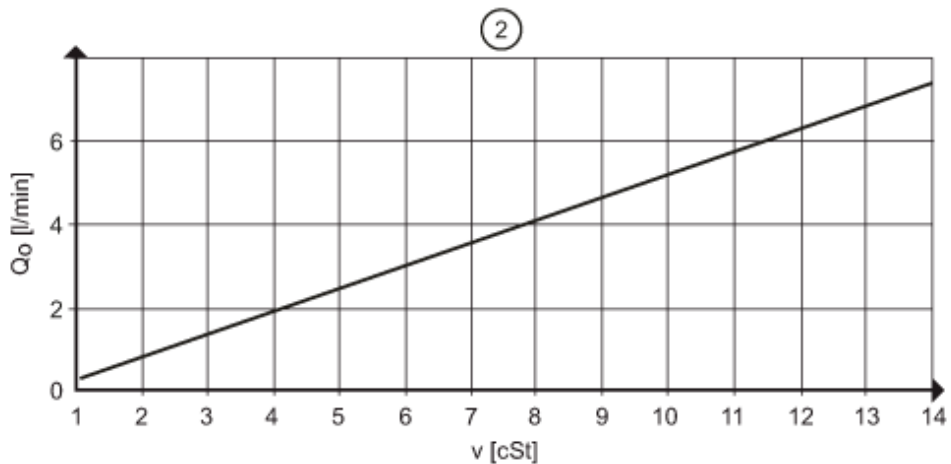
Vortex flow meter

SVM11XXD0KG/US-100

Determination of the kinematic viscosity (ν) of glycol-water mixtures depending on the temperature



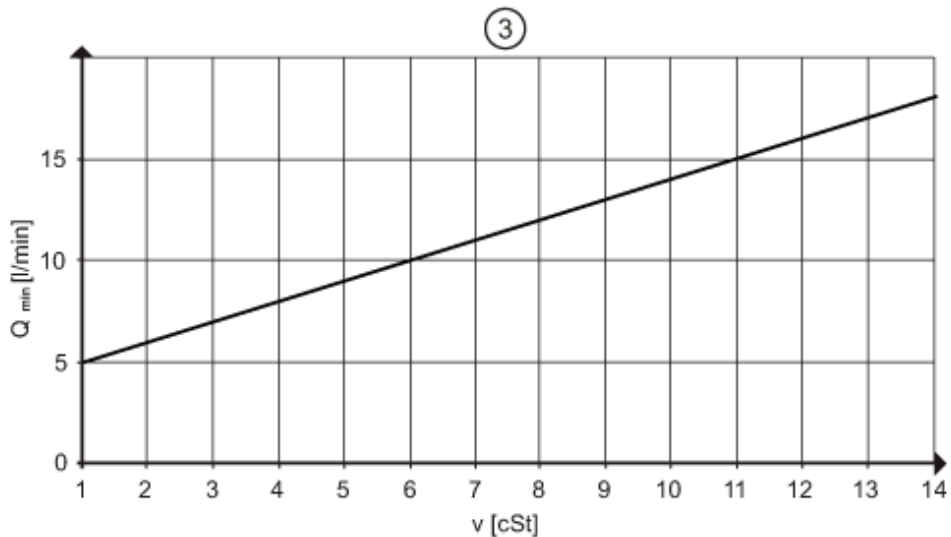
determination of the compensation value Q_0 for glycol-water mixtures



$\nu < 4$ cSt measuring accuracy 3% MEW

$4 < \nu < 14$ cSt measuring accuracy 4% MEW

Response threshold $Q_{\min}$ depending on the kinematic viscosity



SV7050



Vortex flow meter

SVM11XXD0KG/US-100

pressure rating (bar)

