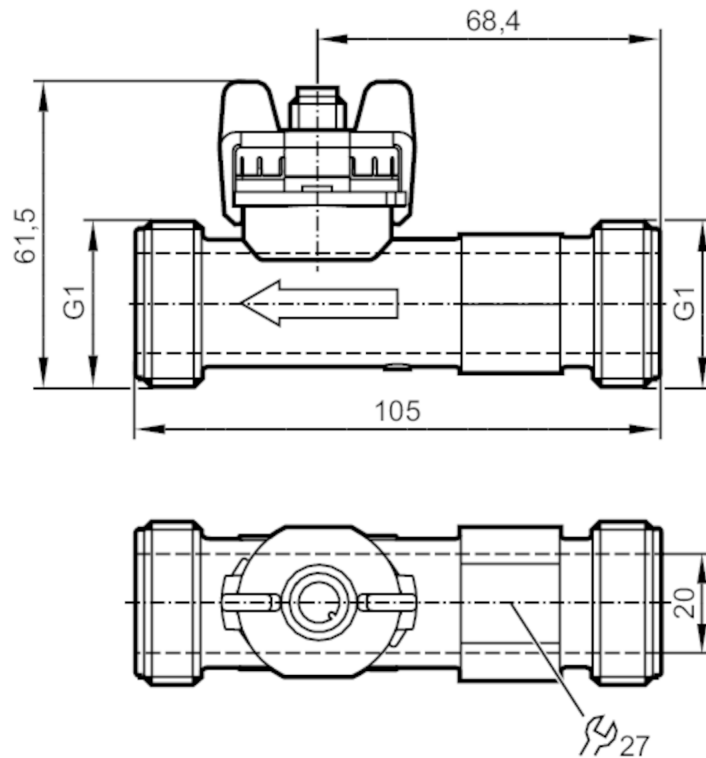


SV7150



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	
Note on ambient temperature	medium temperature > 0 °C: -30...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]	104	
Housing	rectangular	
Dimensions [mm]	105 x 30.22 x 61.5	
Material	PA 6T	
Materials (wetted parts)	ETFE; PA 6T; EPDM	

SV7150



Vortex flow meter

SVM11XXD0KG/US-100

Tightening torque	[Nm]	12
Process connection	threaded connection G 1 external thread DN20	

Displays / operating elements

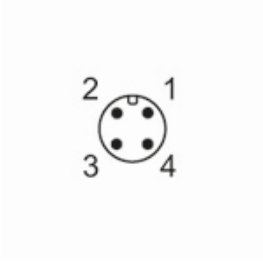
Display	Color display 1,44", 128 x 128 pixels
	2 x LED, yellow

Remarks

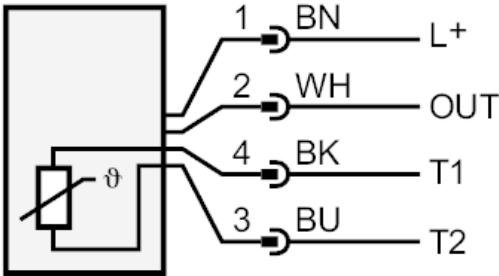
Remarks	MW = Measured value
	MEW = Final value of the measuring range
Pack quantity	1 pcs.

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

SV7150

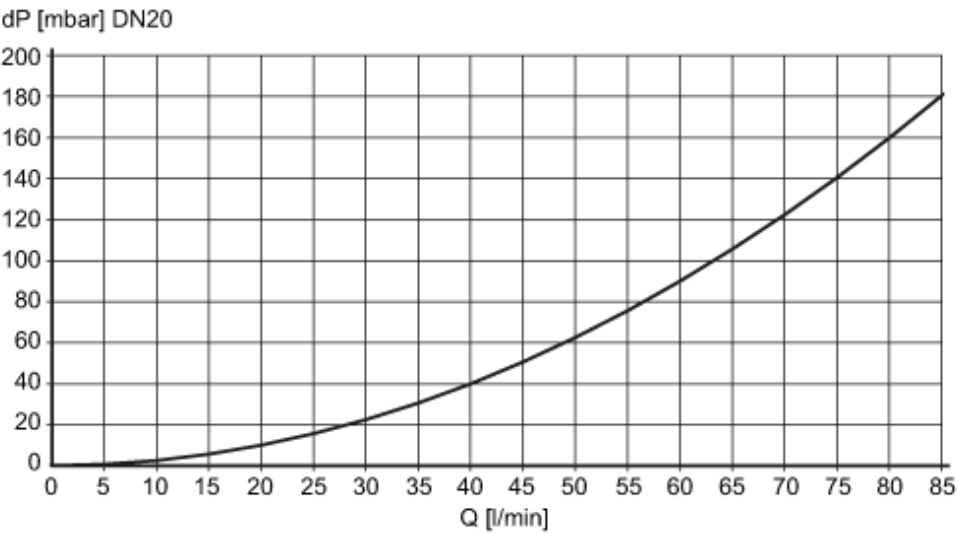
Vortex flow meter

SVM11XXD0KG/US-100



Diagrams and graphs

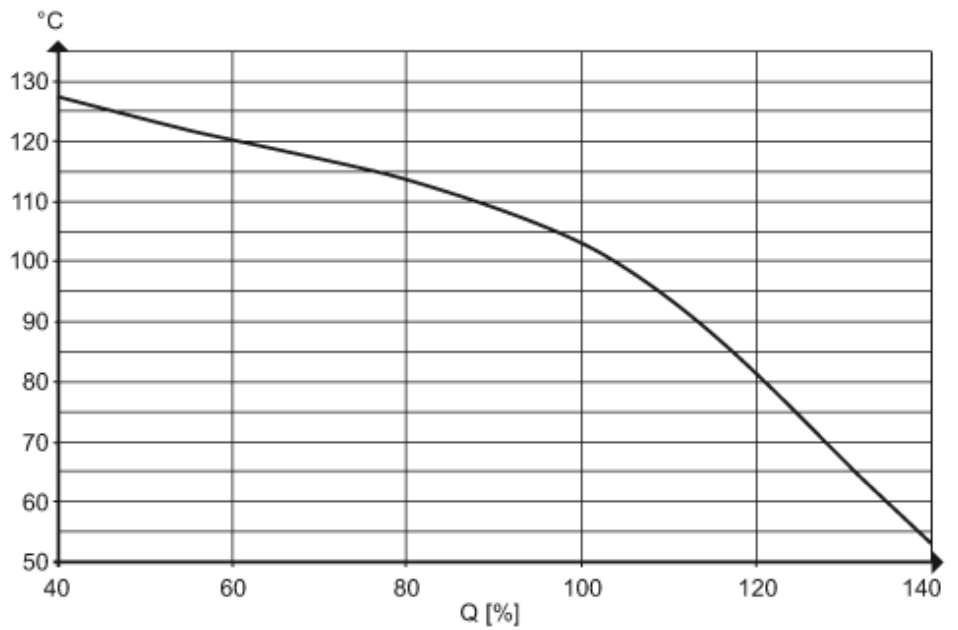
Pressure loss



dP Pressure loss

Q volumetric flow quantity

Minimum lifetime 10 years
referred to flow and high medium
temperatures

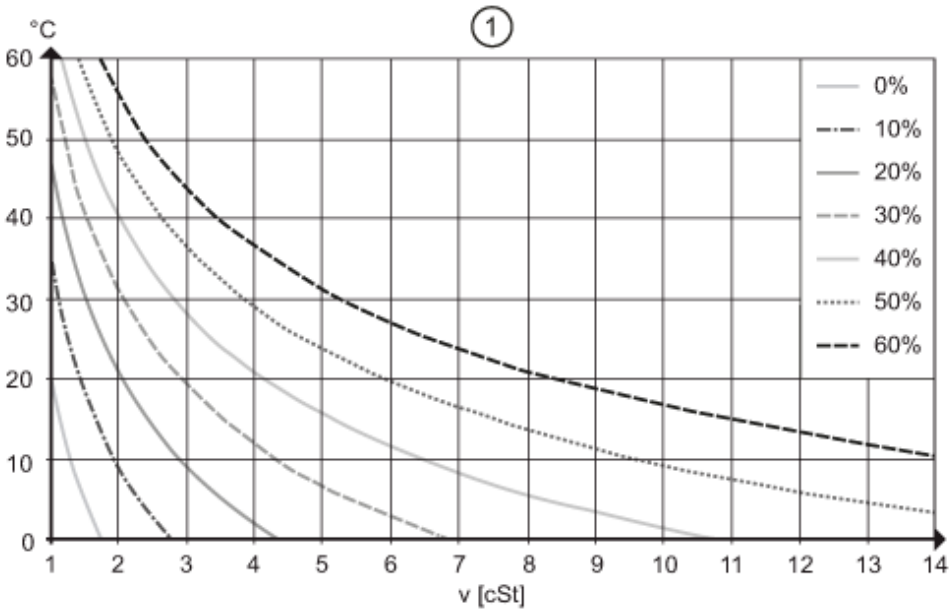




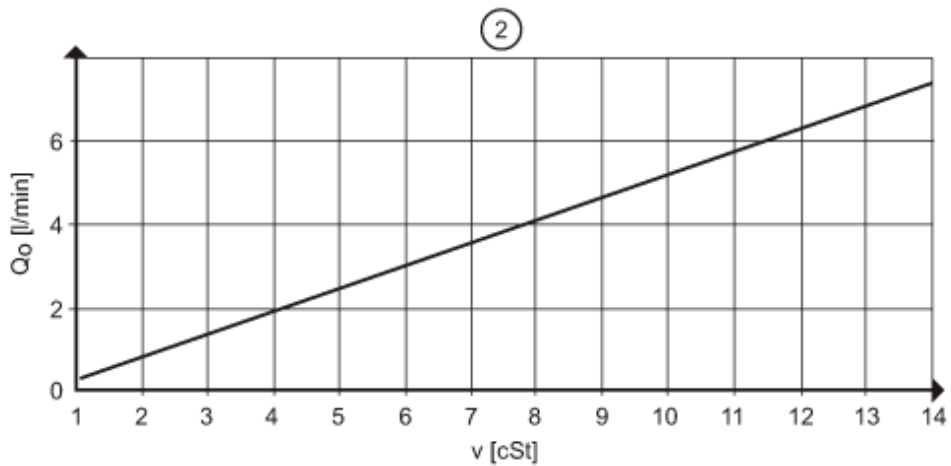
Vortex flow meter

SVM11XXD0KG/US-100

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



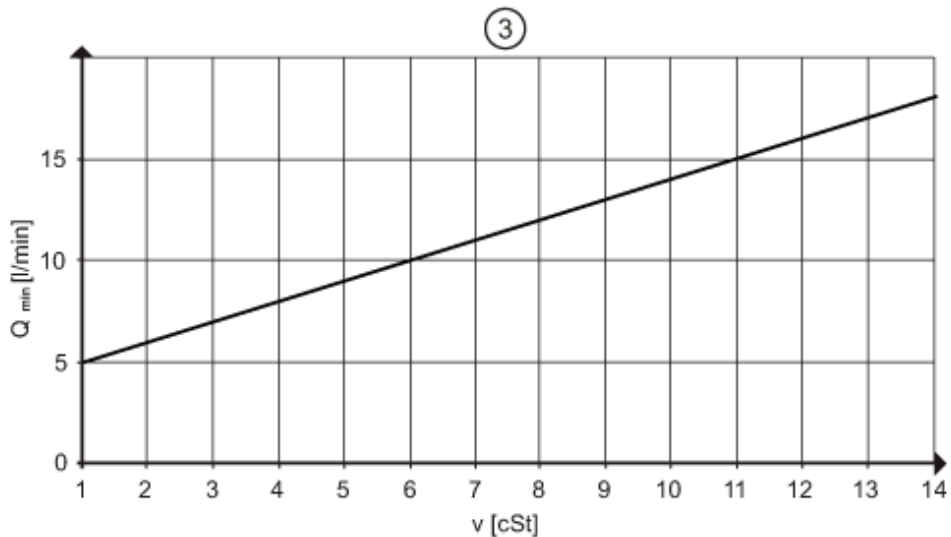
determination of the compensation value Q_0 for glycol-water mixtures



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

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

Response threshold Q_{min} depending on the kinematic viscosity



SV7150



Vortex flow meter

SVM11XXD0KG/US-100

pressure rating (bar)

