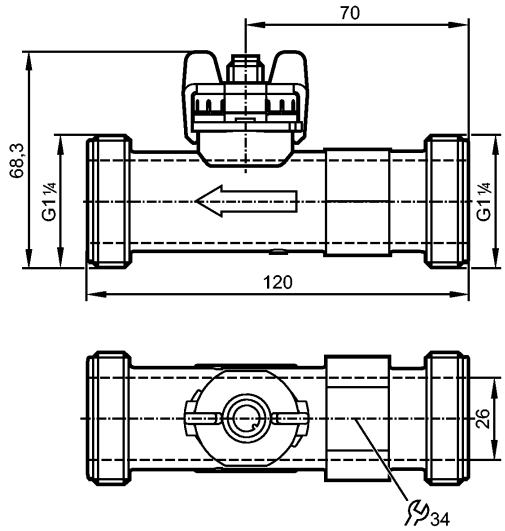
SV8050

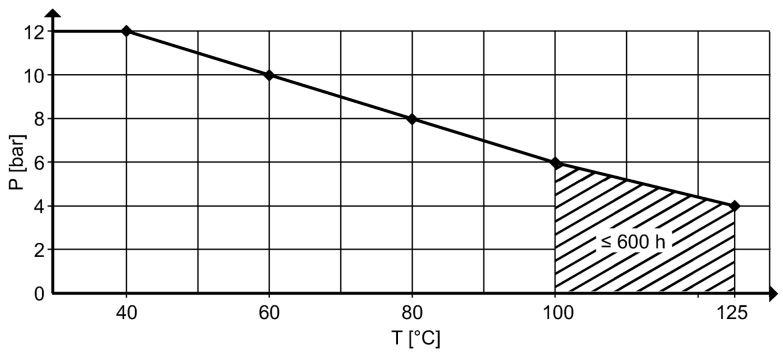
SVM54XXXD0KG/US-100

Flow sensors

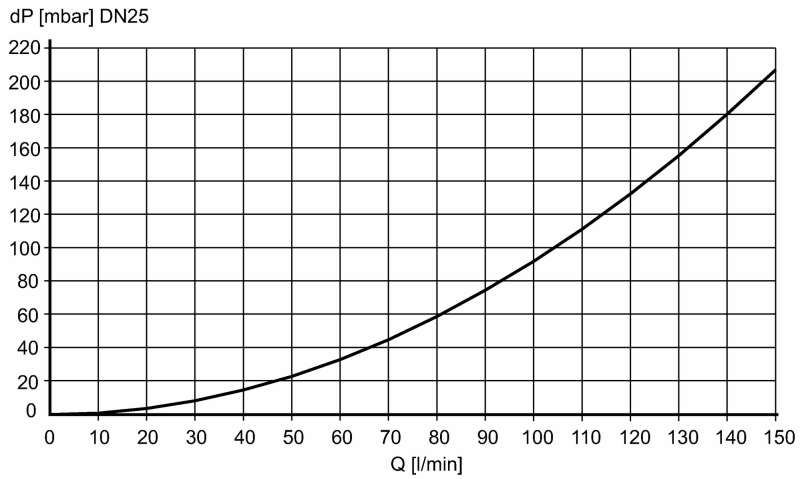
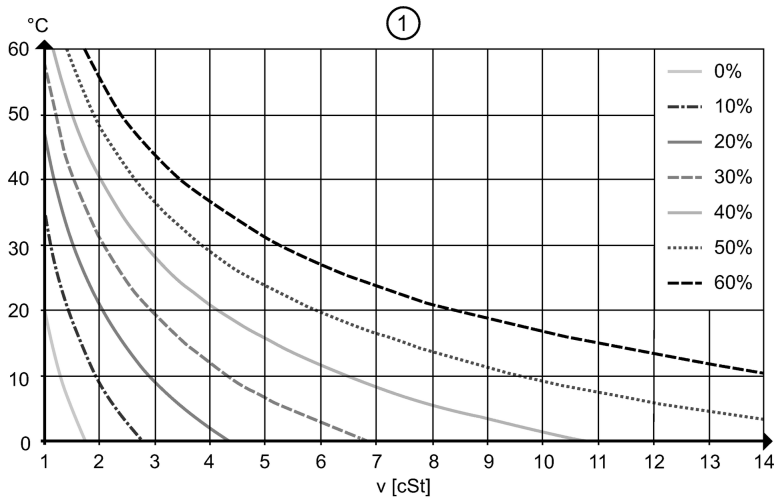


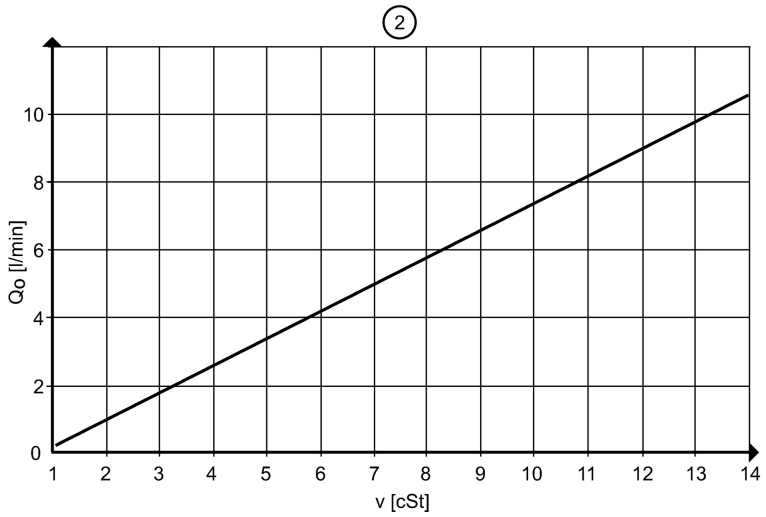
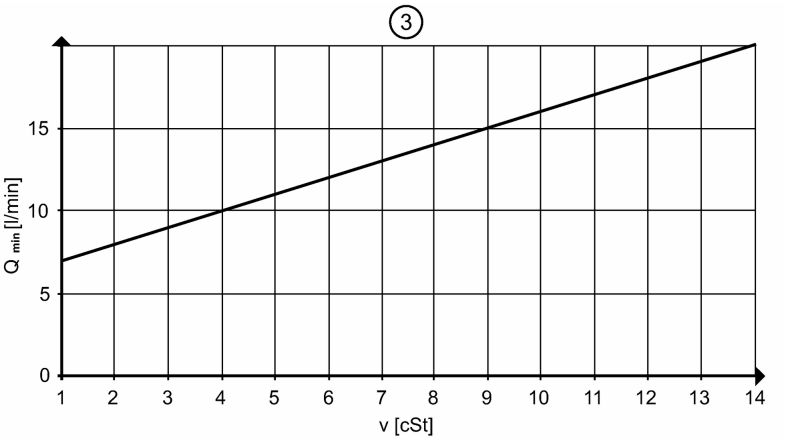
CE

Product characteristics
Vortex flow meter
DN 25
Quick disconnect
Process connection: G 1¼
connection to pipe by means of an adapter
flow monitoring
Measuring range
9...150 l/min
Temperature monitoring
Measuring range
-40...100 °C
Measuring element: 1 x Pt 1000, to DIN EN 60751, class B

Application		
Application		Water, water-based media
Pressure rating [bar]		
Pressure rating	[bar]	12; (up to 40 °C)
Medium temperature	[°C]	-40...100

Electrical data		
Electrical design		DC
Operating voltage	[V]	8...33
Insulation resistance	[MΩ]	> 100 (500 V DC)

Protection class		III
Outputs		
Output function		analog
Analog output		4...20 mA
Max. load	[Ω]	< (Ub - 8 V) / 20 mA 800 at Ub = 24 V
Measuring / setting range		
Flow monitoring		
Measuring range		9...150 [l/min] | 0.283...4.709 [m/s]
Output curve		Water: Q [l/min] = 9.375 x (I - 4 mA) Water-glycol: Q [l/min] = 9.375 x (I - 4 mA) - Qo, see figure (2)
Temperature monitoring		
Measuring range	[°C]	-40...100
Internal heating temperature probe		1 K/mW
Accuracy / deviations		
Flow monitoring		
Accuracy		Q < 50 % MEW (water): < 1 % MEW Q > 50 % MEW (water): < 2 % MW
Repeatability		0.2; [% of the final value]
Pressure loss (dP) / flow rate (Q)		
Temperature monitoring		
Accuracy	[K]	± 0.3 ± 0.005 x T
Determination of the kinematic viscosity (v) of glycol-water mixtures depending on the temperature		

Determination of the compensation value Qo for glycol-water mixtures v < 4 cSt: measuring accuracy of 3 % MEW 4 < v < 14 cSt: measuring accuracy of 4 % MEW	
Response threshold Q(min) depending on the kinematic viscosity	

Reaction times			
Power-on delay time	[s]	< 2	
Flow monitoring			
Response time	[s]	< 0.5	
Environment			
Cavitation		P(absolute) discharge / P(difference) > 5.5 to avoid cavitation	
Ambient temperature	[°C]	-15...85	
Storage temperature	[°C]	-30...85	
Protection		IP 65	
Tests / approvals			
Pressure equipment directive		article 3, section 3 - sound engineering practice	
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	

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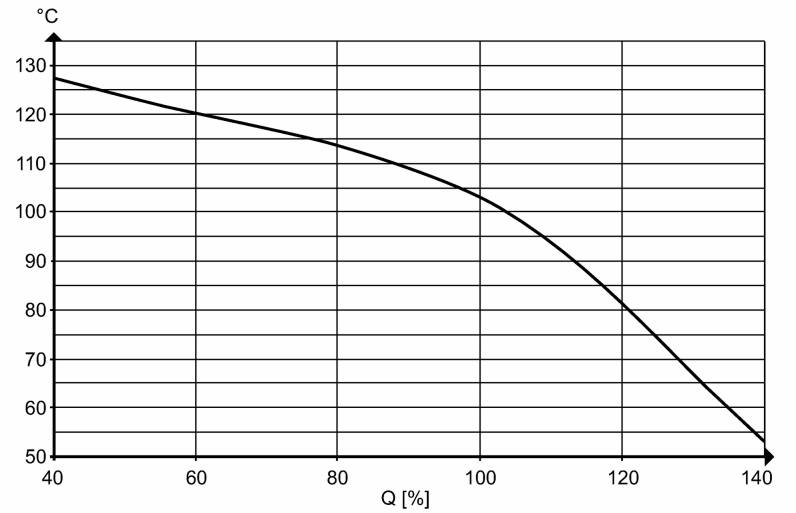
Flow sensors

Minimum lifetime 10 years referred to flow and high medium temperatures	

Mechanical data

Process connection		G 1¼
Materials (wetted parts)		ETFE; PA 6T; FKM
Housing materials		PA 6T
Tightening torque	[Nm]	15
Weight	[kg]	0.21

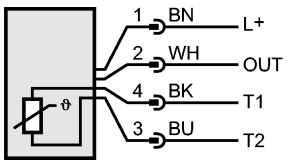
Electrical connection

Connection	M12 connector; gold-plated contacts

Wiring

Core colors

BK black
BN brown
BU blue
WH white



OUT: analog
T1 / T2: Pt1000
Colours to DIN EN 60947-5-2

Remarks

Remarks	MW = measured value MEW = final value of the measuring range
Pack quantity [piece]	1