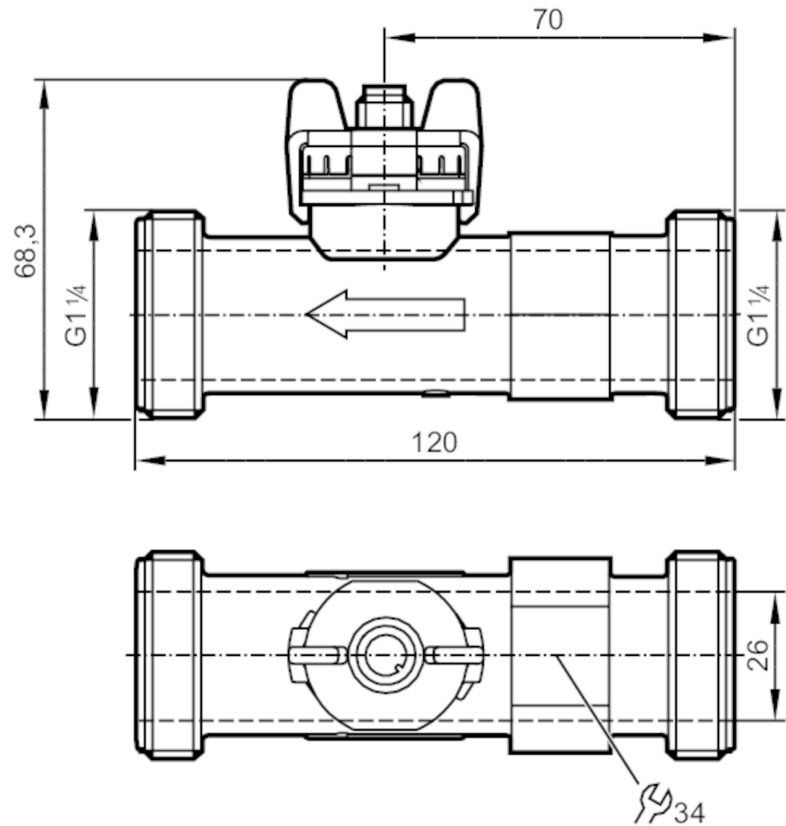


SV8050



Vortex flow meter

SVM54XXD0KG/US-100



Product characteristics		
Number of inputs and outputs	Number of analog outputs: 1	
Measuring range	9...150 l/min	0.283...4.709 m/s
Process connection	threaded connection G 1 1/4 DN25	
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	[bar]	25
Min. bursting pressure	[MPa]	2.5
Pressure rating	[bar]	12
Pressure rating	[Mpa]	1.2
Note on pressure rating	up to 40 °C	

SV8050



Vortex flow meter

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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
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: $Q [l/min] = 9,375 \times (I - 4 \text{ mA})$; water-glycol: $Q [l/min] = 9,375 \times (I - 4 \text{ mA}) - Q_0$ see Figure 2)
Max. load	[Ω]	$< (U_b - 8 \text{ V}) / 20 \text{ mA}$; $U_b = 24 \text{ V}$: 800
Measuring/setting range		
Measuring range		9...150 l/min 0.283...4.709 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)		$Q < 50 \% \text{ MEW: } < 1 \% \text{ MEW} / Q > 50 \% \text{ MEW: } < 2 \% \text{ MW; (water)}$
Repeatability		0,2; (% of the final value)
Temperature monitoring		
Accuracy	[K]	$\pm 0,3 \pm 0,005 \times T$
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		$P(\text{absolute}) \text{ discharge} / P(\text{difference}) > 5.5$ to avoid cavitation

SV8050



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Tests / approvals		
EMC	EN 61326-2-3	
	model number	002VO
CPA approval	accuracy class	-
	maximum allowable error	± 3 % FS
	Q (min)	0,54 m³/h
	Q (t)	1,8 m³/h
	Q (max)	9 m³/h
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]	138.5
Material		PA 6T
Materials (wetted parts)		ETFE; PA 6T; FKM
Tightening torque	[Nm]	15
Process connection		threaded connection G 1 1/4 DN25

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



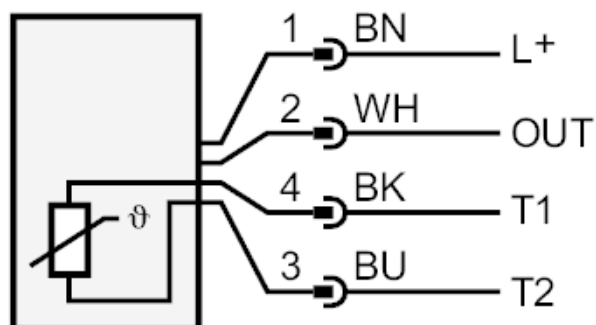
SV8050



Vortex flow meter

SVM54XXD0KG/US-100

Connection



OUT: analog output

T1 / T2: Pt1000

Colours to DIN EN 60947-5-2

Core colors :

BK = black

BN = brown

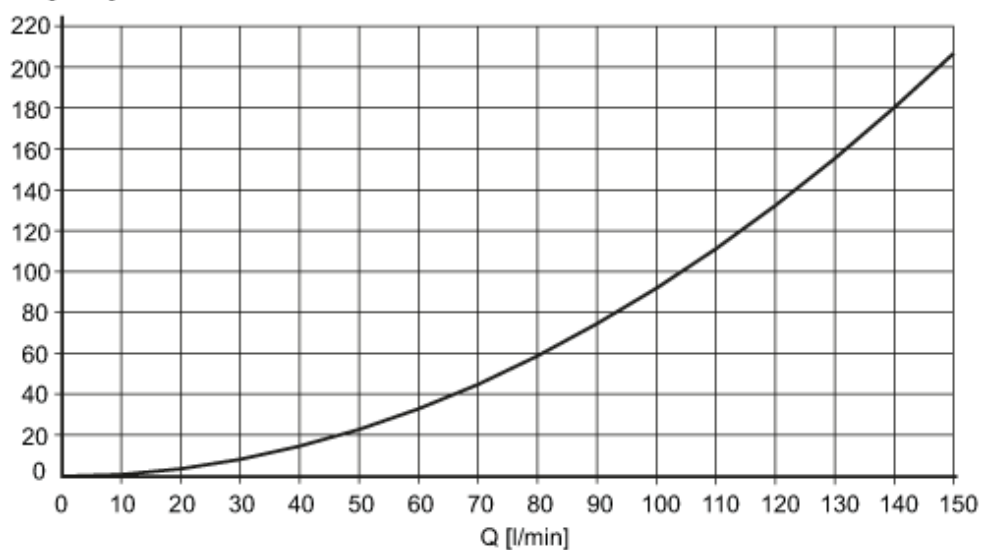
BU = blue

WH = white

Diagrams and graphs

Pressure loss

dP [mbar] DN25



dP Pressure loss

Q volumetric flow quantity

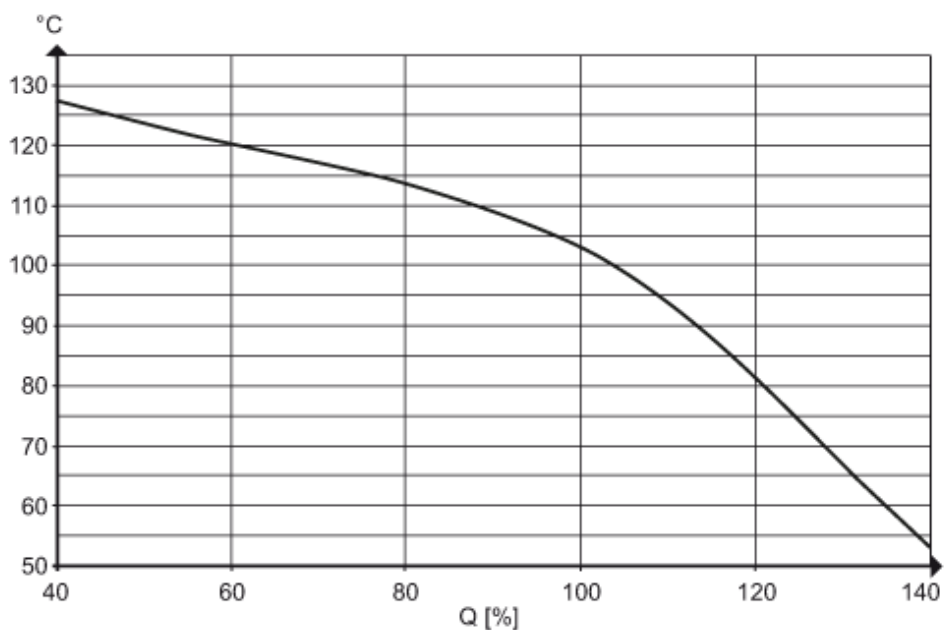
SV8050



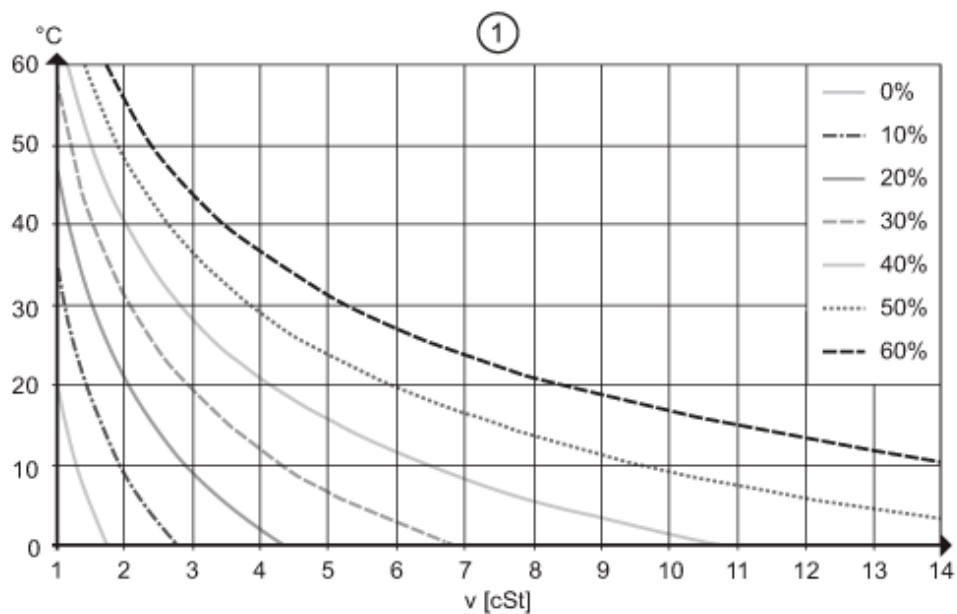
Vortex flow meter

SVM54XXD0KG/US-100

Minimum lifetime 10 years
referred to flow and high medium
temperatures



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

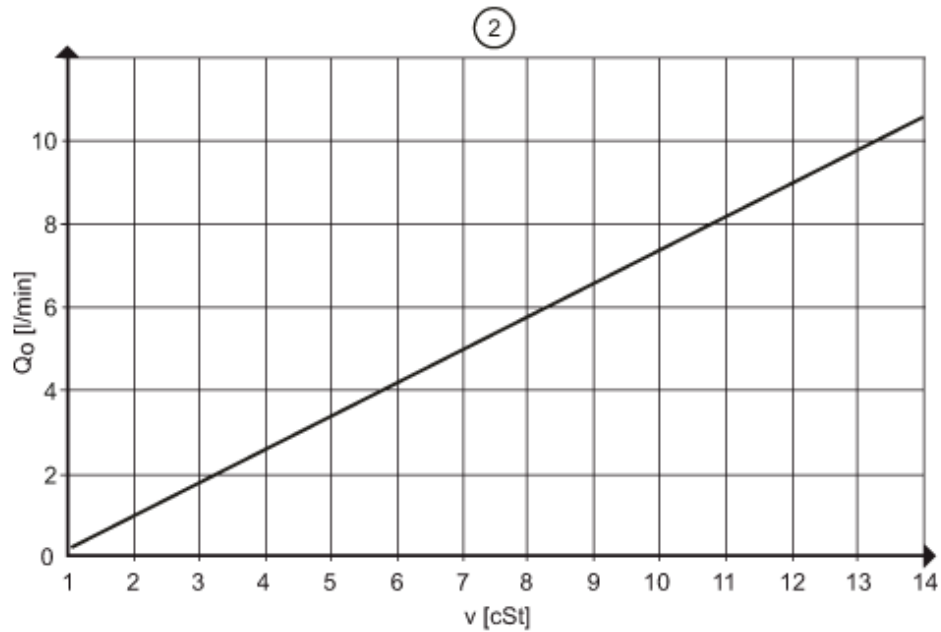




Vortex flow meter

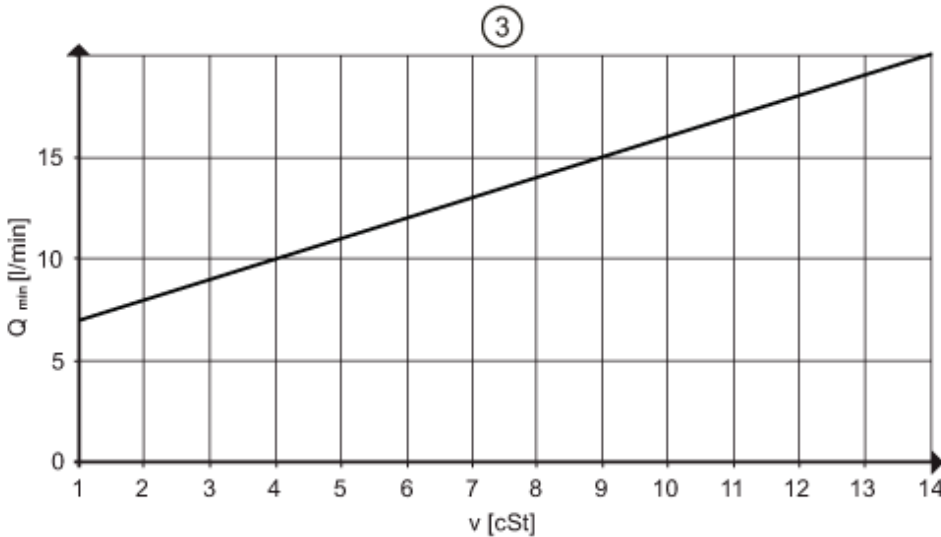
SVM54XXD0KG/US-100

determination of the compensation value Q_0 for glycol-water mixtures



$v < 4$ cSt measuring accuracy 3% MEW
 $4 < v < 14$ cSt measuring accuracy 4% MEW

Response threshold Q_{min} depending on the kinematic viscosity



pressure rating (bar)

