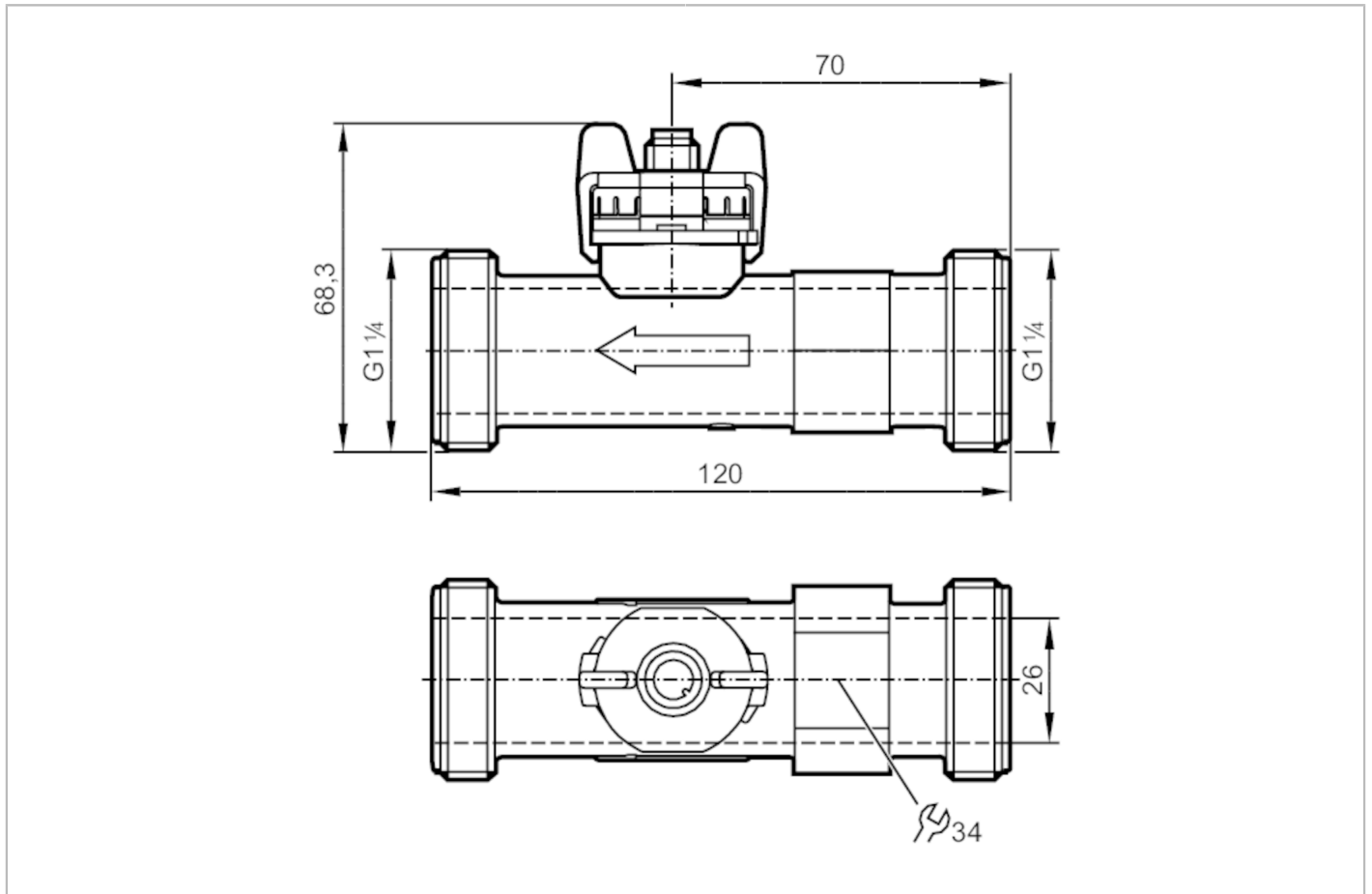


SV8050



Vortex flow meter

SVM54XXXD0KG/US-100



Product characteristics

Number of inputs and outputs	Number of analogue outputs: 1	
Measuring range	9...150 l/min	0.283...4.709 m/s
Process connection	threaded connection G 1 1/4 DN25	

Application

Special feature	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	

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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 analogue outputs: 1
Outputs	
Total number of outputs	1
Output signal	analogue signal
Number of analogue outputs	1
Analogue current output [mA]	4...20; (water: $Q \text{ [l/min]} = 9,375 \times (I - 4 \text{ mA})$; water-glycol: $Q \text{ [l/min]} = 9,375 \times (I - 4 \text{ mA}) - Q_0$ 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]	$\pm 0,3 \pm 0,005 \times T$
Response 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

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Tests / approvals		
EMC	EN 61326-2-3	
	model number	002VO
CPA approval	accuracy class	-
	maximum allowable error	± 4 % 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
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data		
Weight	[g]	138.5
Materials		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



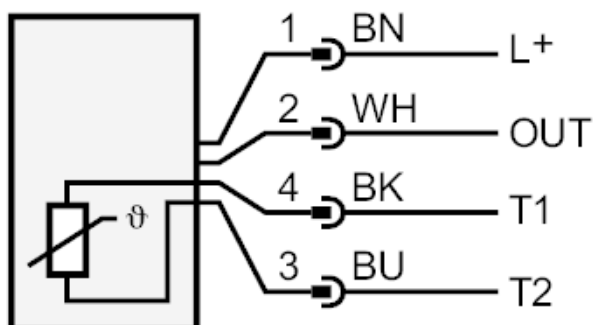
SV8050



Vortex flow meter

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Connection



OUT: analogue output

T1 / T2: Pt1000

colours to DIN EN 60947-5-2

Core colours :

BK = black

BN = brown

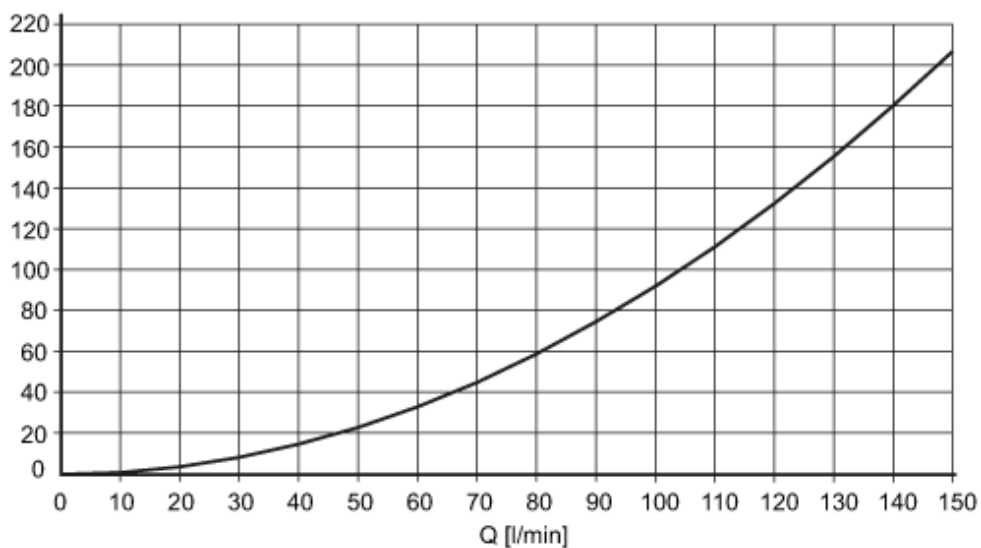
BU = blue

WH = white

Diagrams and graphs

Pressure loss

dP [mbar] DN25



dP Pressure loss

Q volumetric flow quantity

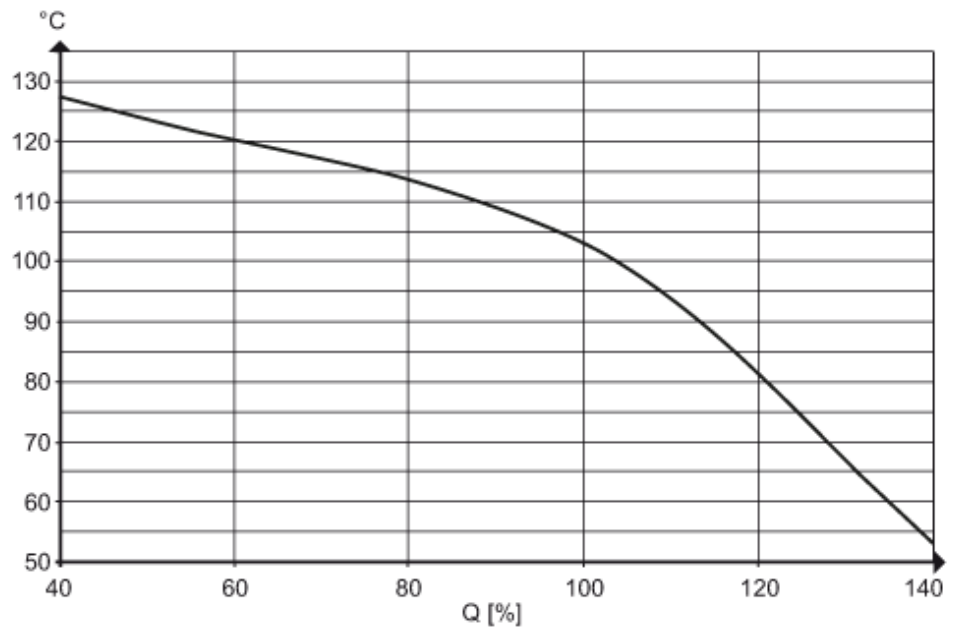
SV8050



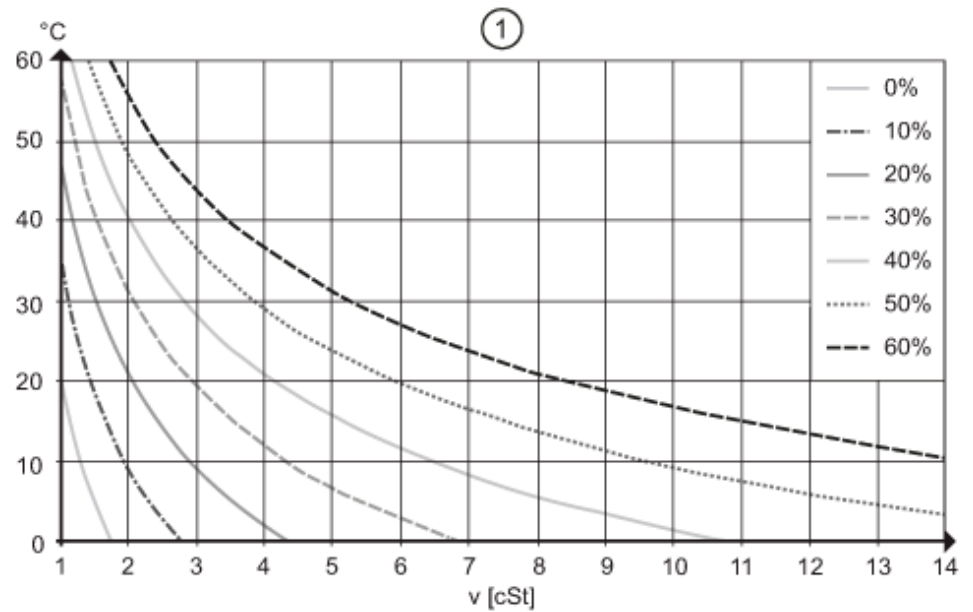
Vortex flow meter

SVM54XXXD0KG/US-100

min. life 10 years referred to flow and high medium temperatures



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



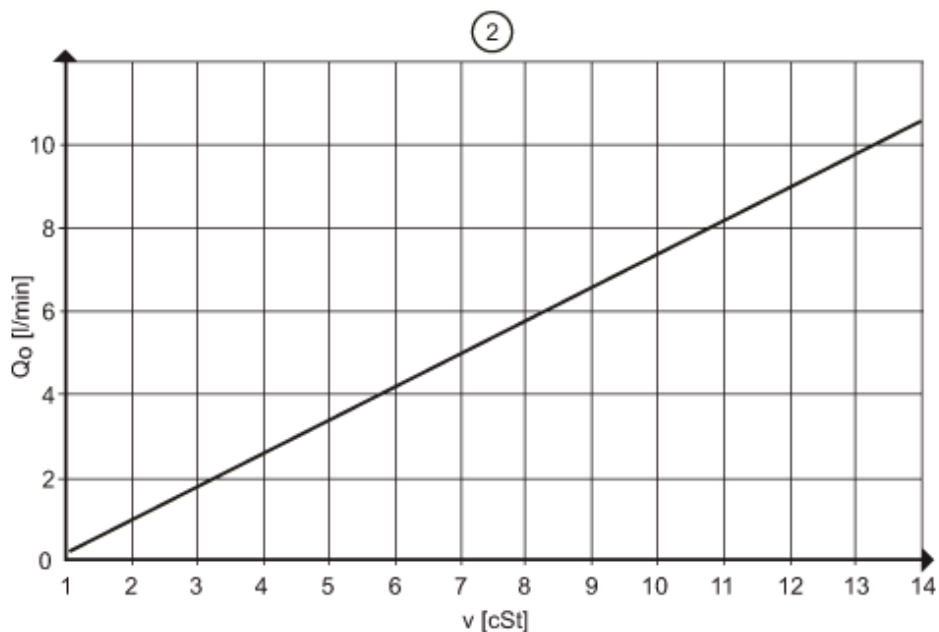
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Vortex flow meter

SVM54XXXD0KG/US-100

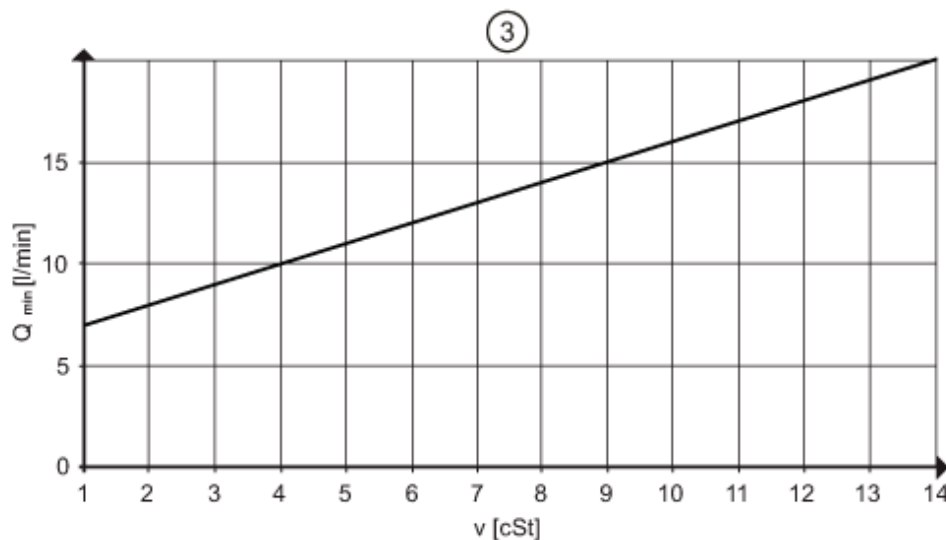
determination of the compensation value Q_0 for glycol-water mixtures



$v < 4$ 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)

