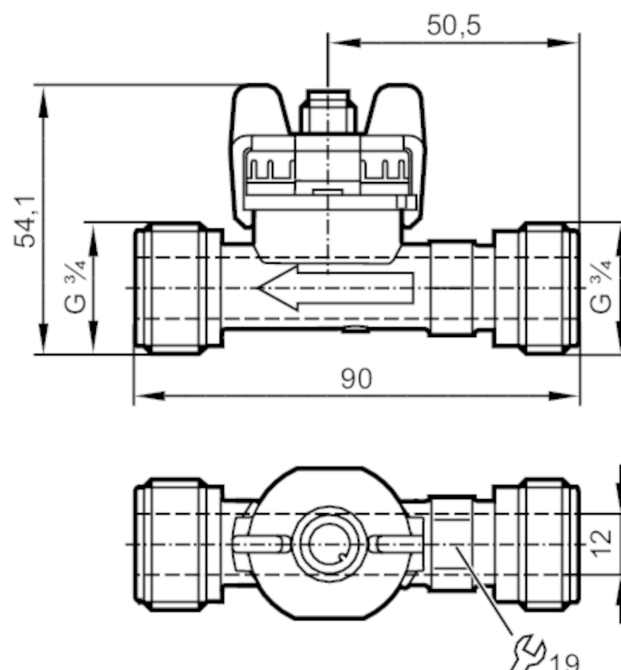


SV5050



Vortex flow meter

SVM34XXD0KG/US-100



Application

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
Pressure rating [bar]	12
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

Outputs

Total number of outputs	1
Output signal	analogue signal
Number of analogue outputs	1
Analogue current output [mA]	4...20; (water: Q [l/min] = 2,0 x (I - 4 mA); water-glycol: Q [l/min] = 2,0 x (I - 4 mA) - Q ₀ see Figure 2)
Max. load [Ω]	< (U _b - 8 V) / 20 mA; U _b = 24 V: 800

Measuring/setting range

Measuring range	1.8...32 l/min	0.265...4.716 m/s
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SV5050



Vortex flow meter

SVM34XXD0KG/US-100

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
Tests / approvals		
EMC		EN 61326-2-3
Shock resistance		DIN EN 60068-2-27
Vibration resistance		DIN EN 60068-2-6
		30 g (11 ms) 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]	134
Materials		PA 6T
Materials (wetted parts)		ETFE; PA 6T; FKM
Tightening torque	[Nm]	12
Process connection		threaded connection G 3/4 DN10
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		

SV5050

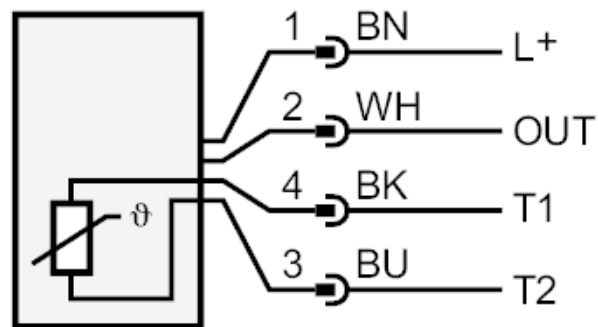


Vortex flow meter

SVM34XXD0KG/US-100



Connection



OUT: analogue output

T1 / T2: Pt1000

colours to DIN EN 60947-5-2

Core colours :

BK = black

BN = brown

BU = blue

WH = white

SV5050

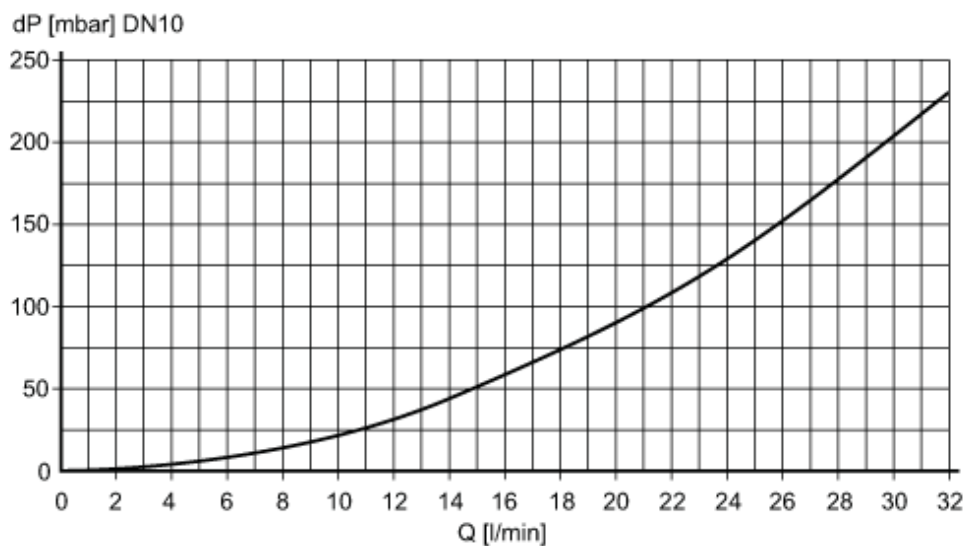


Vortex flow meter

SVM34XXD0KG/US-100

Diagrams and graphs

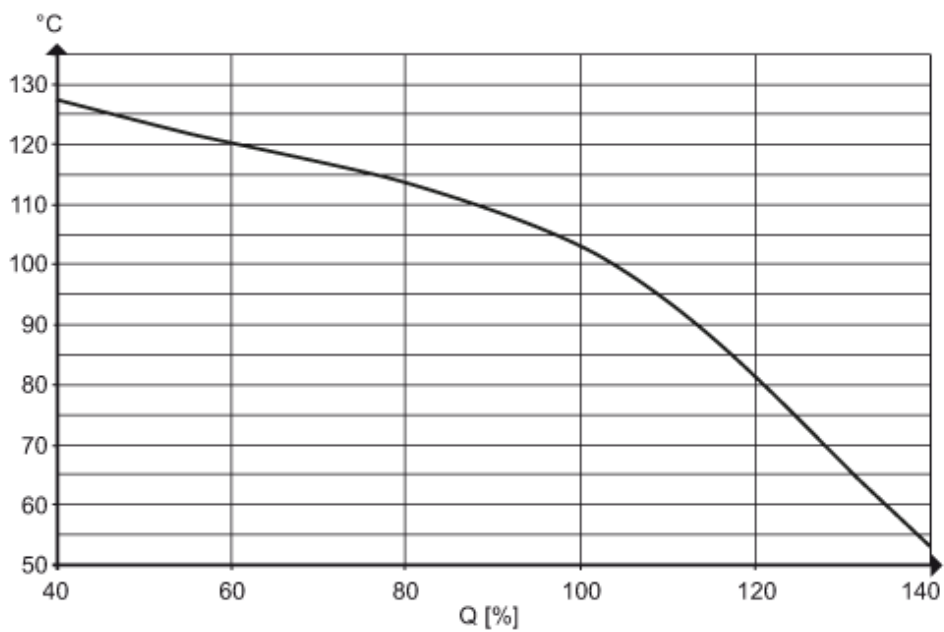
Pressure loss



dP Pressure loss

Q volumetric flow quantity

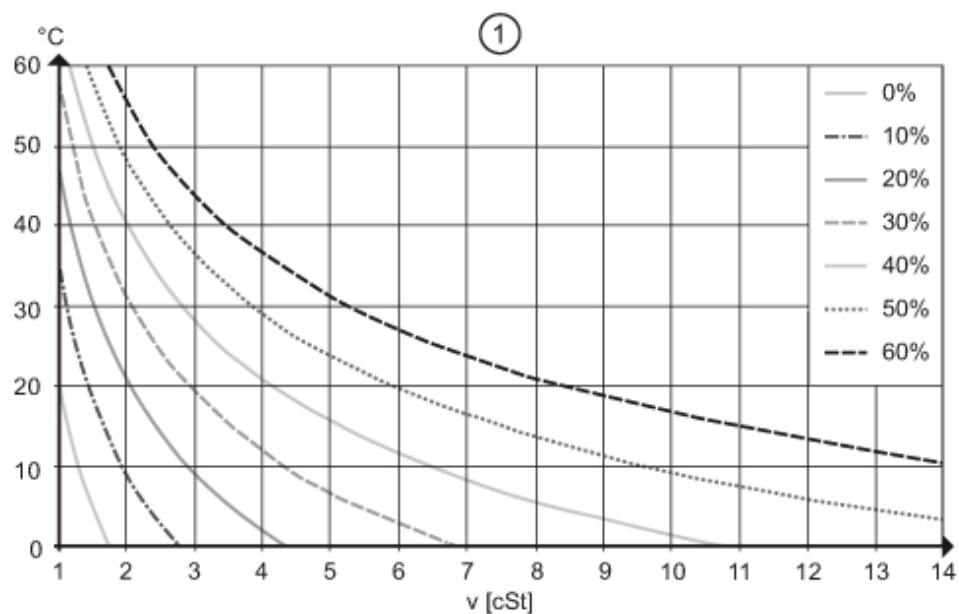
min. life 10 years referred to flow
and high medium temperatures



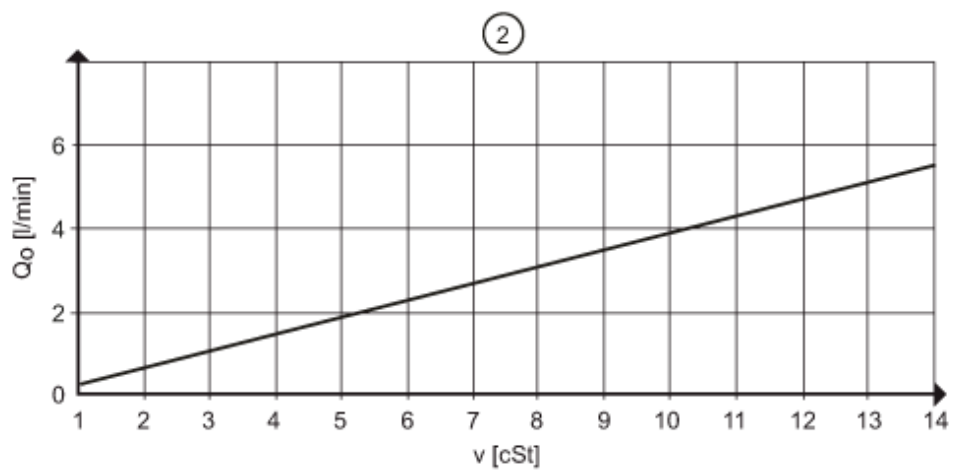
Vortex flow meter

SVM34XXD0KG/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
 $\nu < 14$ cSt measuring accuracy 4 % MEW

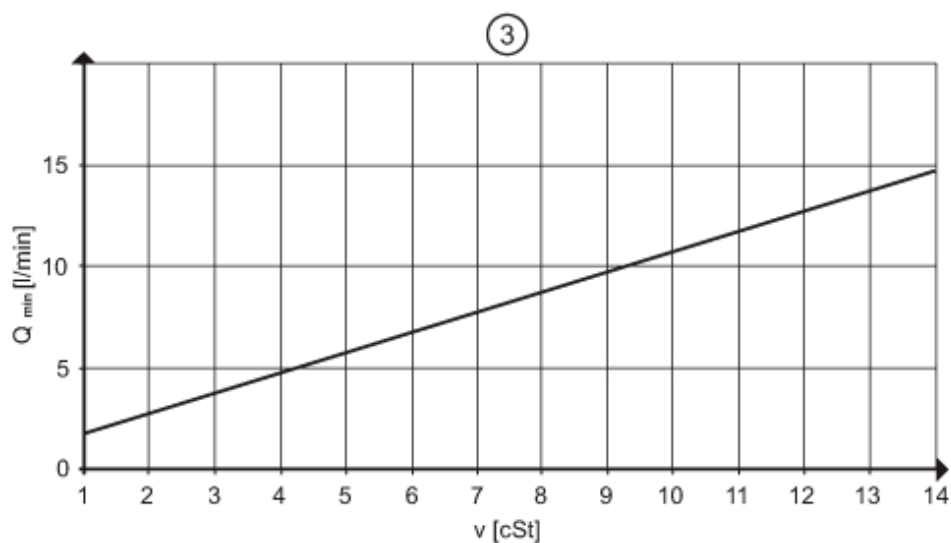
SV5050



Vortex flow meter

SVM34XXD0KG/US-100

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



pressure rating (bar)

