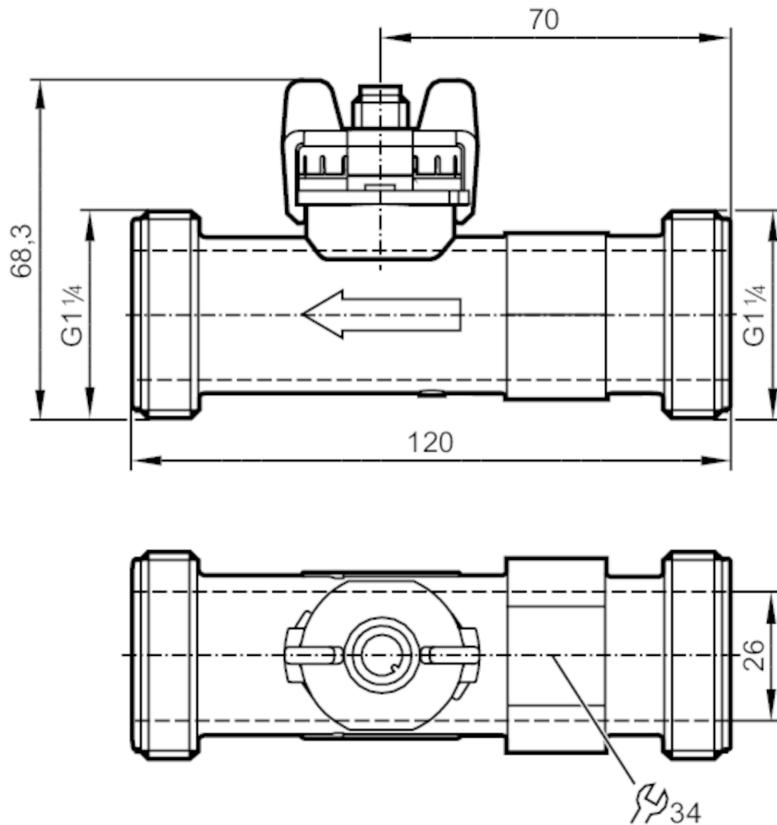


# SV8150



## Vortex flow meter

SVM54XXXD0KG/US-100



CE

### Product characteristics

Number of inputs and outputs	Number of analogue outputs: 1
Measuring range	9...150 l/min
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

### Electrical data

Operating voltage	[V]	8...33 DC
Min. insulation resistance	[MΩ]	100; (500 V DC)

# SV8150



## Vortex flow meter

SVM54XXXD0KG/US-100

Protection class		III
Power-on delay time	[s]	< 2
<b>Inputs / outputs</b>		
Number of inputs and outputs	Number of analogue outputs: 1	
<b>Outputs</b>		
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	[ $\Omega$ ]	$< (U_b - 8 \text{ V}) / 20 \text{ mA}$ ; $U_b = 24 \text{ V}$ : 800
<b>Measuring/setting range</b>		
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
<b>Accuracy / deviations</b>		
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]	$\pm 0,3 \pm 0,005 \times T$
<b>Response times</b>		
Flow monitoring		
Response time	[s]	0.5
<b>Operating conditions</b>		
Ambient temperature	[°C]	-15...85
Note on ambient temperature		medium temperature $> 0 \text{ °C}$ : -30...85
Storage temperature	[°C]	-30...85
Protection		IP 65
Cavitation		$P(\text{absolute}) \text{ discharge} / P(\text{difference}) > 5.5$ to avoid cavitation
<b>Tests / approvals</b>		
EMC		EN 61326-2-3
Shock resistance		DIN EN 60068-2-27
Vibration resistance		DIN EN 60068-2-6
MTTF	[years]	380
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request
<b>Mechanical data</b>		
Weight	[g]	136.2
Materials		PA 6T
Materials (wetted parts)		ETFE; PA 6T; EPDM

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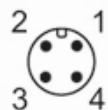
## Vortex flow meter

SVM54XXXD0KG/US-100

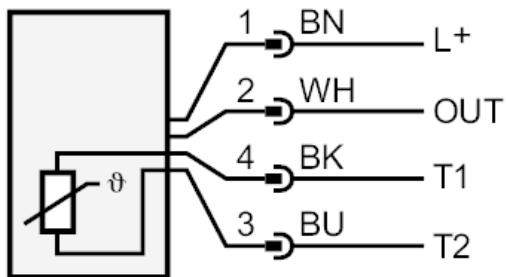
Tightening torque	[Nm]	15
Process connection		threaded connection G 1 1/4 DN25
<b>Remarks</b>		
Remarks		MW = measured value
		MEW = Final value of the measuring range
Pack quantity		1 pcs.

## Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



## Connection



OUT:	analogue output
T1 / T2:	Pt1000
	colours to DIN EN 60947-5-2
	Core colours :
BK =	black
BN =	brown
BU =	blue
WH =	white

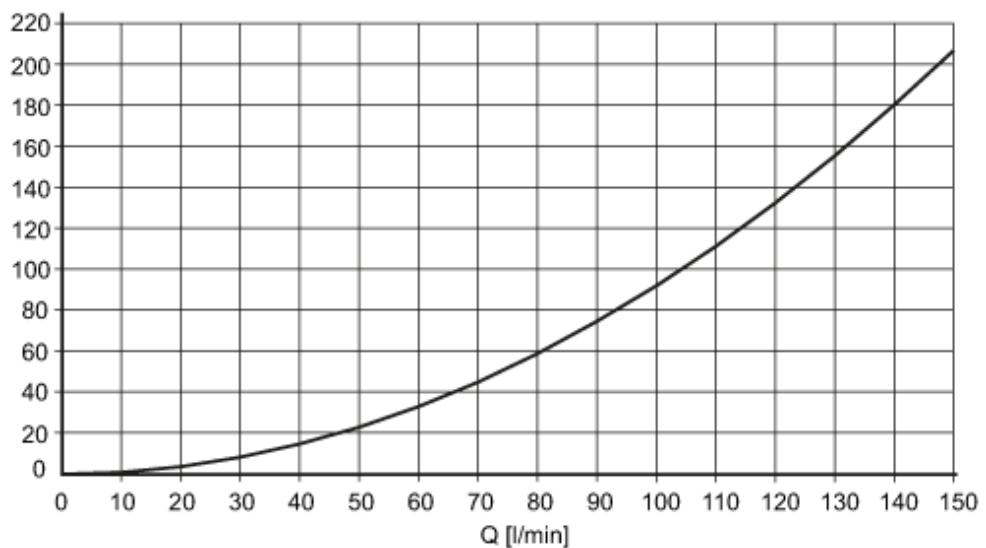
## Vortex flow meter

SVM54XXXD0KG/US-100

### Diagrams and graphs

Pressure loss

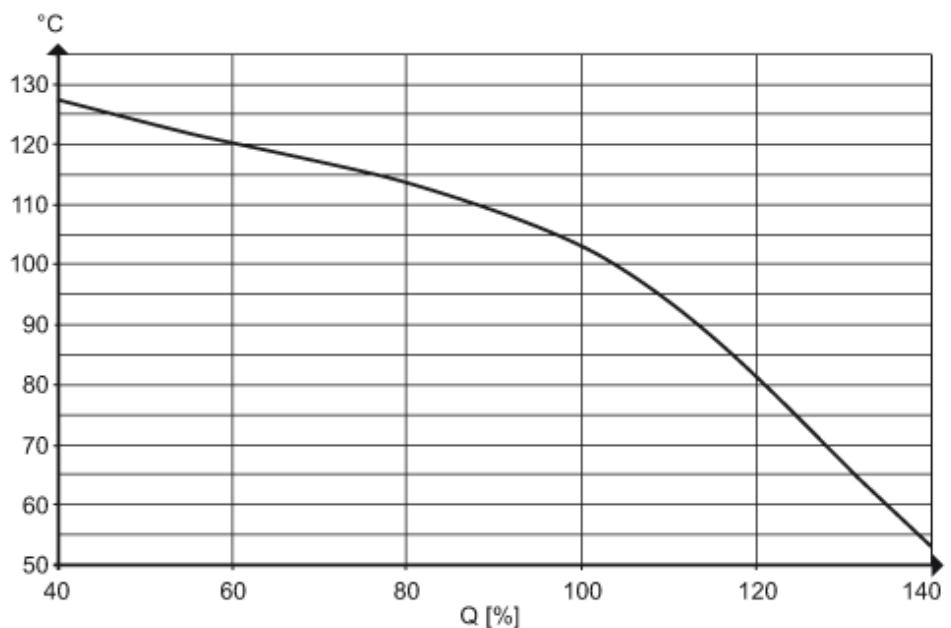
dP [mbar] DN25



dP Pressure loss

Q volumetric flow quantity

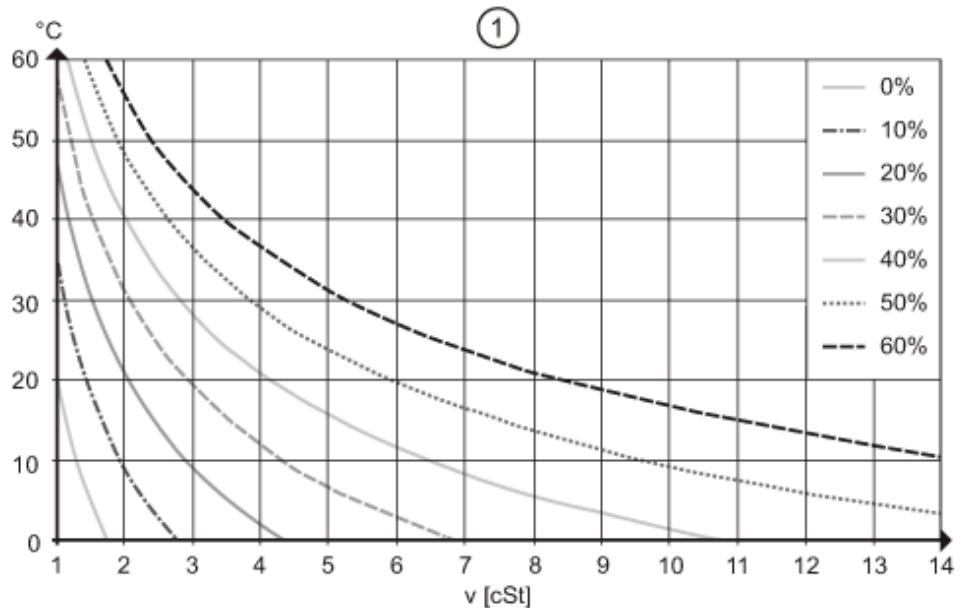
min. life 10 years referred to flow  
and high medium temperatures



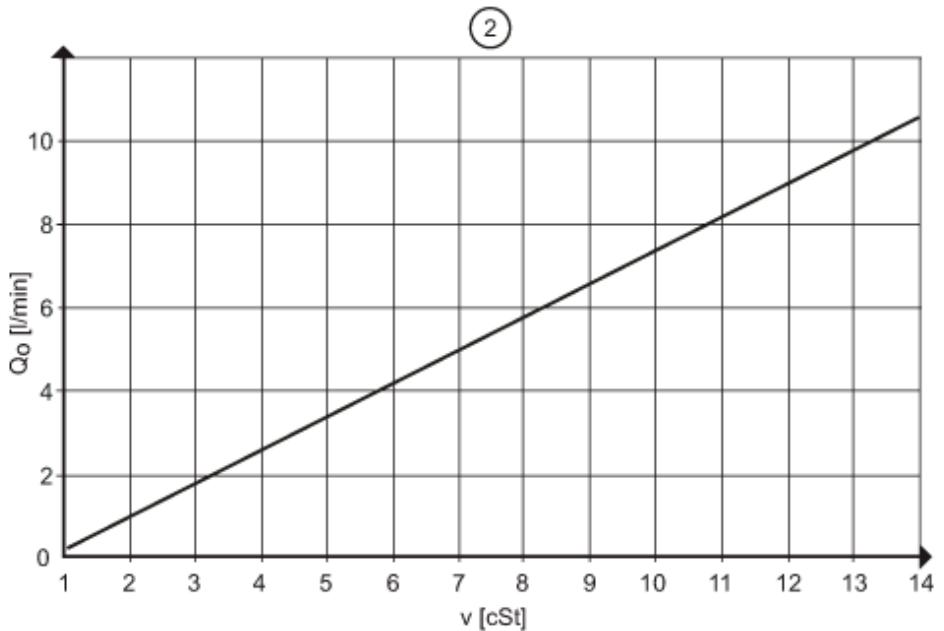
## Vortex flow meter

SVM54XXXD0KG/US-100

determination of the kinematic viscosity ( $\nu$ ) 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

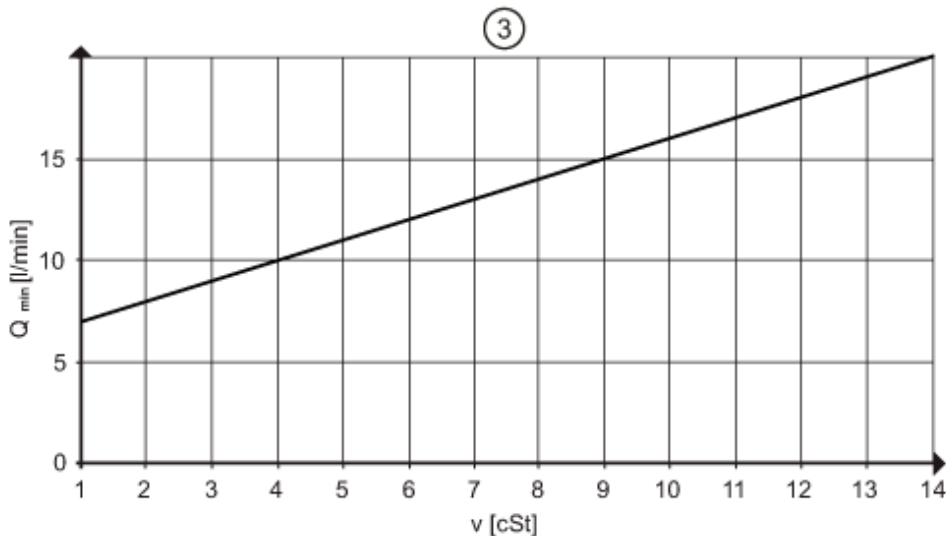
# SV8150



## Vortex flow meter

SVM54XXXD0KG/US-100

response threshold  $Q(\text{min})$   
depending on the kinematic viscosity



pressure rating (bar)

