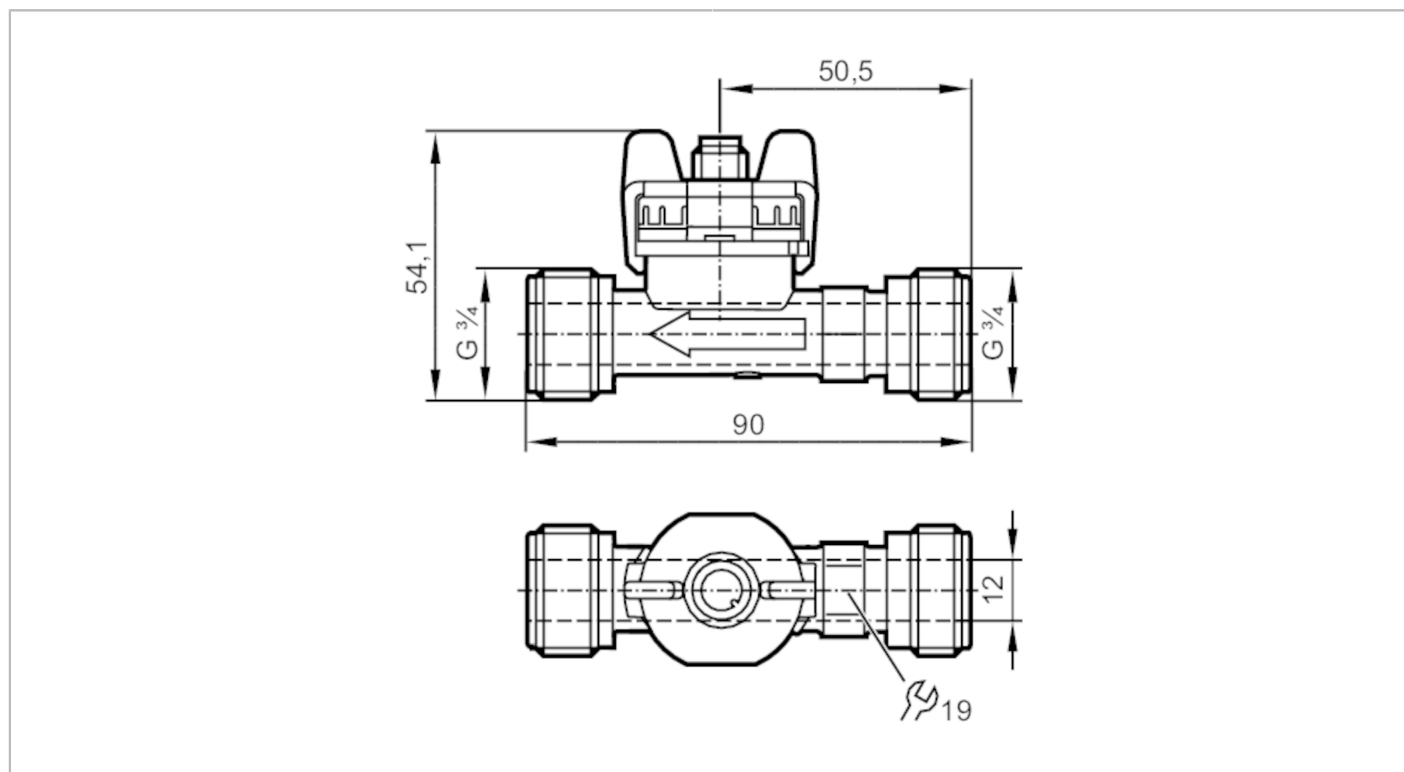


# SV5050



## Vortex flow meter

SVM34XXXD0KG/US-100



### Product characteristics

Number of inputs and outputs	Number of analogue outputs: 1	
Measuring range	1.8...32 l/min	0.265...4.716 m/s
Process connection	threaded connection G 3/4 DN10	

### 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	
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	

### Inputs / outputs

Number of inputs and outputs	Number of analogue outputs: 1	
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# SV5050



## Vortex flow meter

SVM34XXXD0KG/US-100

Outputs		
Total number of outputs		1
Output signal		analogue signal
Number of analogue outputs		1
Analogue current output	[mA]	4...20; (water: $Q [l/min] = 2,0 \times (I - 4 \text{ mA})$ ; water-glycol: $Q [l/min] = 2,0 \times (I - 4 \text{ mA}) - Q_0$ see Figure 2)
Max. load	[ $\Omega$ ]	$< (U_b - 8 \text{ V}) / 20 \text{ mA}$ ; $U_b = 24 \text{ V}$ : 800
Measuring/setting range		
Measuring range		1.8...32 l/min      0.265...4.716 m/s
Temperature monitoring		
Internal heating temperature probe		1 K/mW
Measuring range	[ $^{\circ}\text{C}$ ]	-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	[ $^{\circ}\text{C}$ ]	-15...85
Storage temperature	[ $^{\circ}\text{C}$ ]	-30...85
Protection		IP 65
Cavitation		$P(\text{absolute discharge}) / P(\text{difference}) > 5.5$ to avoid cavitation
Tests / approvals		
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
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request
Mechanical data		
Weight	[g]	87.8
Materials		PA 6T
Materials (wetted parts)		ETFE; PA 6T; FKM
Tightening torque	[Nm]	12
Process connection		threaded connection G 3/4 DN10

# SV5050



## Vortex flow meter

SVM34XXXD0KG/US-100

### Remarks

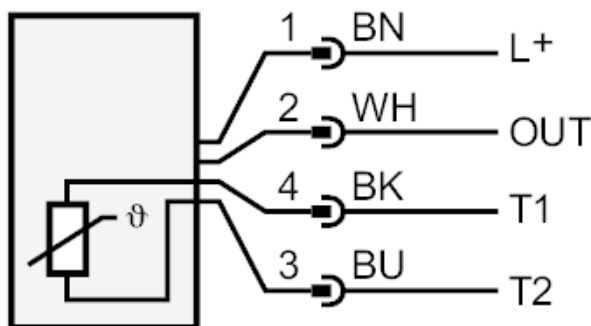
Remarks	MW = measured value
	MEW = Final value of the measuring range
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12; Contacts: gold-plated



### 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

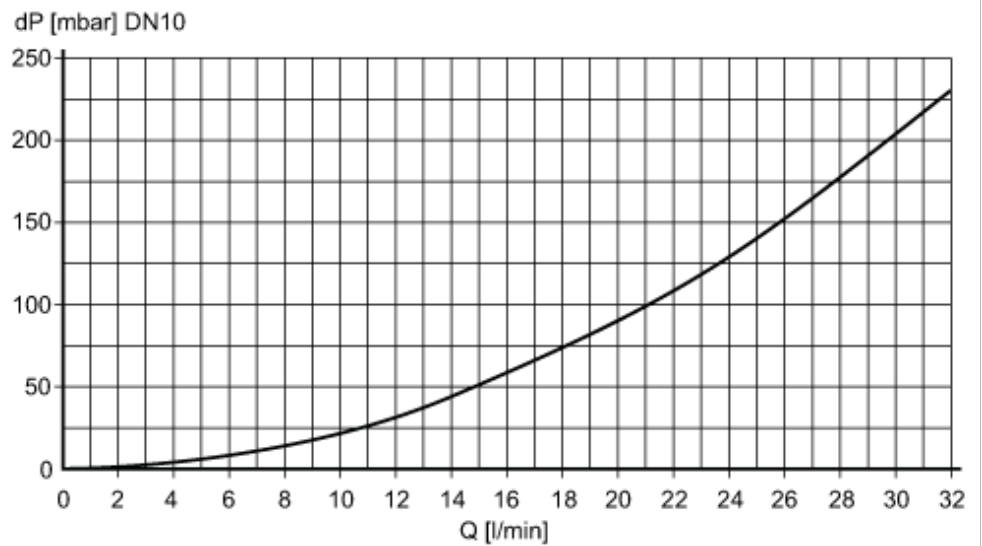


## Vortex flow meter

SVM34XXXD0KG/US-100

### Diagrams and graphs

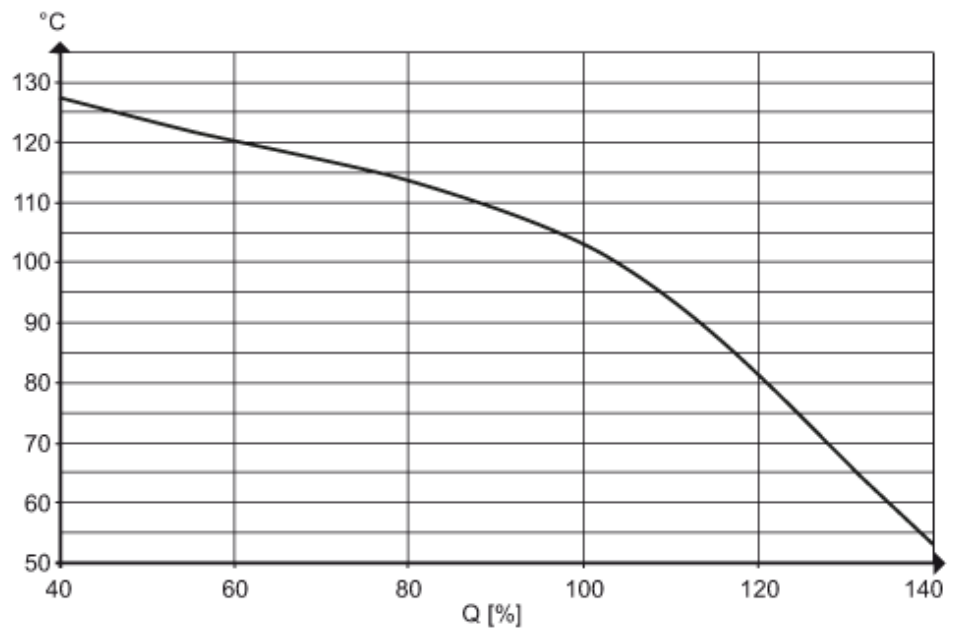
Pressure loss



dP Pressure loss

Q volumetric flow quantity

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



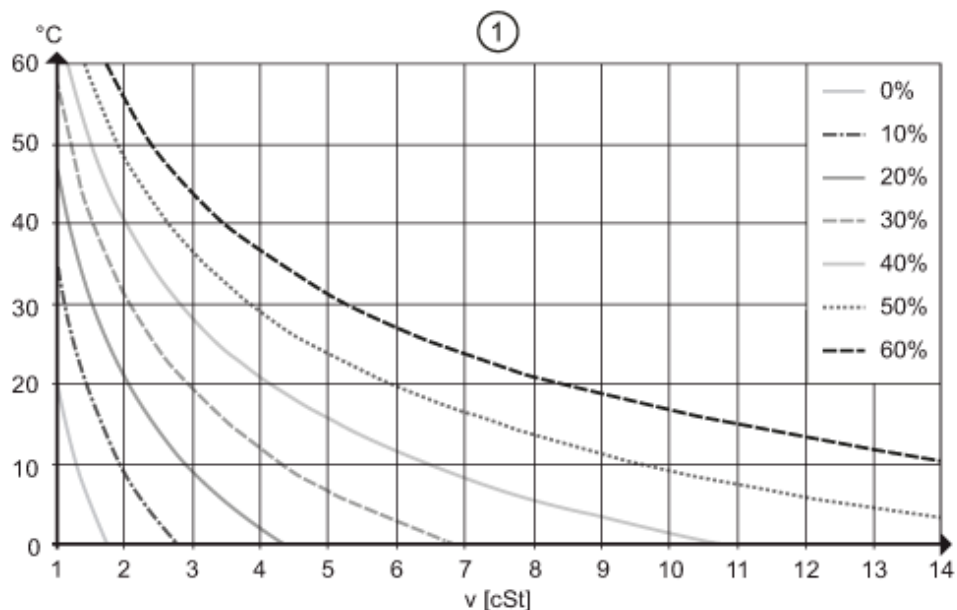
# SV5050



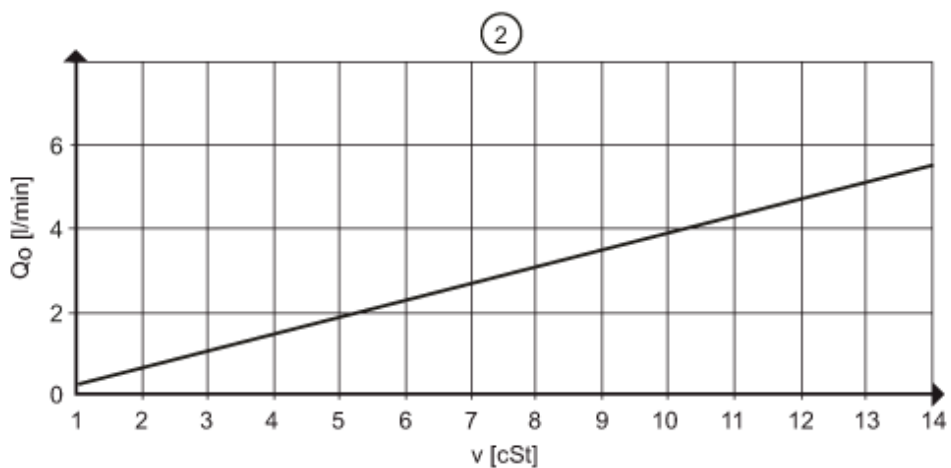
## Vortex flow meter

SVM34XXXD0KG/US-100

determination of the kinematic viscosity ( $\nu$ ) of glycol-water mixtures depending on the temperature



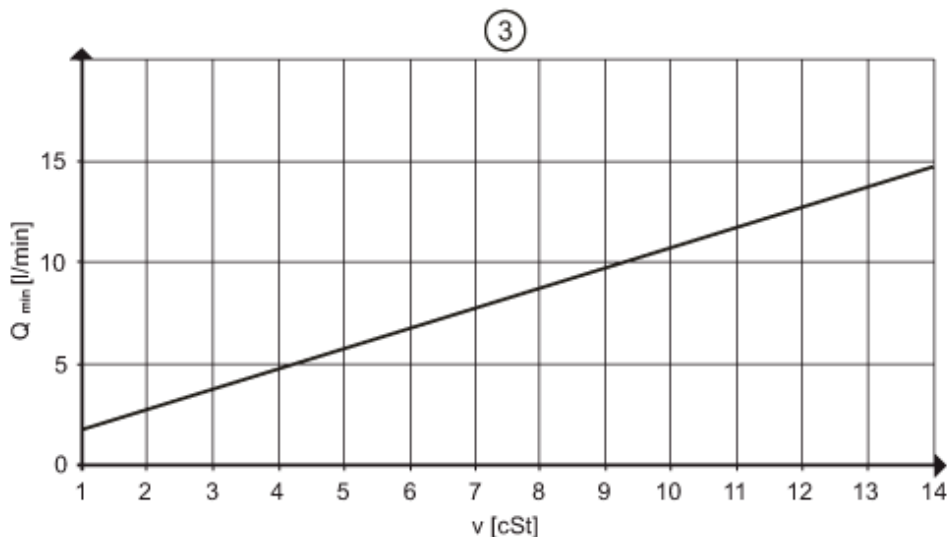
determination of the compensation value  $Q_0$  for glycol-water mixtures



$\nu < 4$  cSt measuring accuracy 3% MEW

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

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



# SV5050

## Vortex flow meter

SVM34XXXD0KG/US-100



pressure rating (bar)

