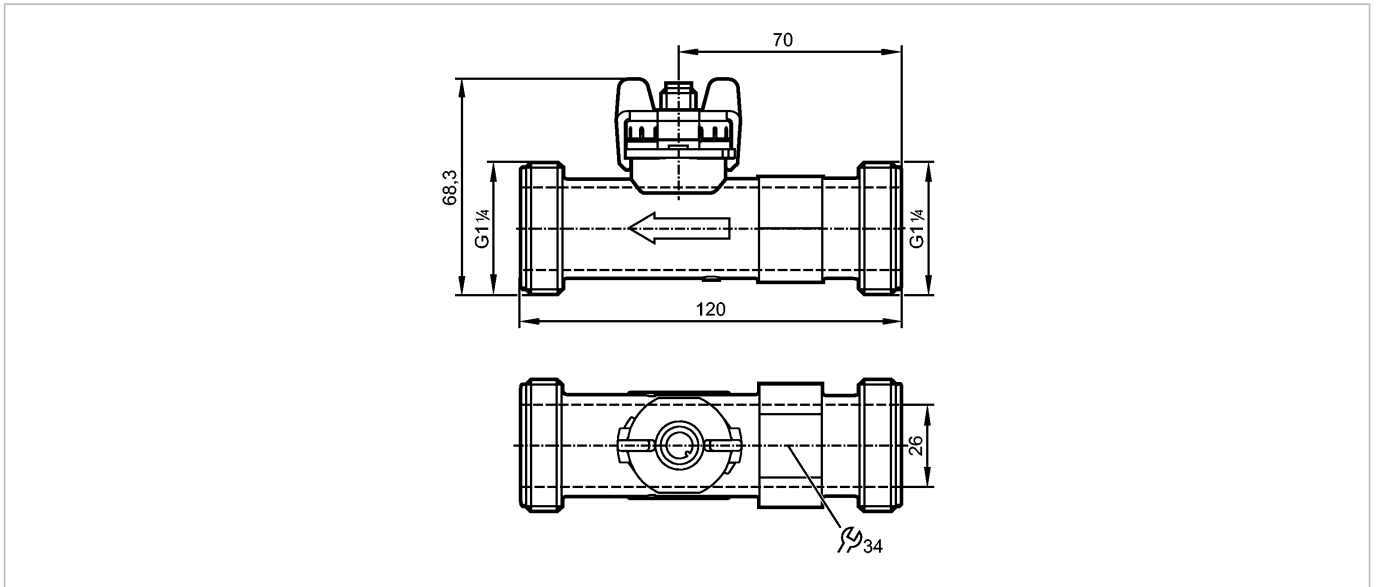


SV8050

SVM54XXD0KG/US-100

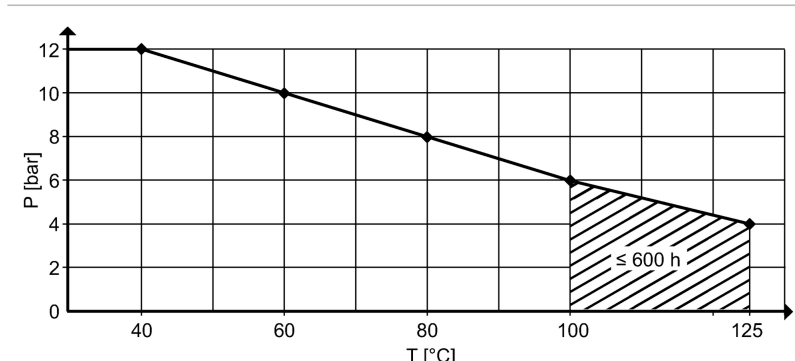
Flow sensors



Product characteristics

Vortex flow meter
DN 25
Quick disconnect
Process connection: G 1 1/4
connection to pipe by means of an adapter
flow monitoring
Measuring range
9...150 l/min
Temperature monitoring
Measuring range
-40...100 °C
Measuring element: 1 x Pt 1000, to DIN EN 60751, class B

Application

Application	Water, water-based media
Pressure rating [bar]	
Pressure rating [bar]	12; (up to 40 °C)
Medium temperature [°C]	-40...100

Electrical data

Electrical design	DC
Operating voltage [V]	8...33
Insulation resistance [MΩ]	> 100 (500 V DC)

SV8050

SVM54XXXD0KG/US-100

Flow sensors

Protection class	III
------------------	-----

Outputs

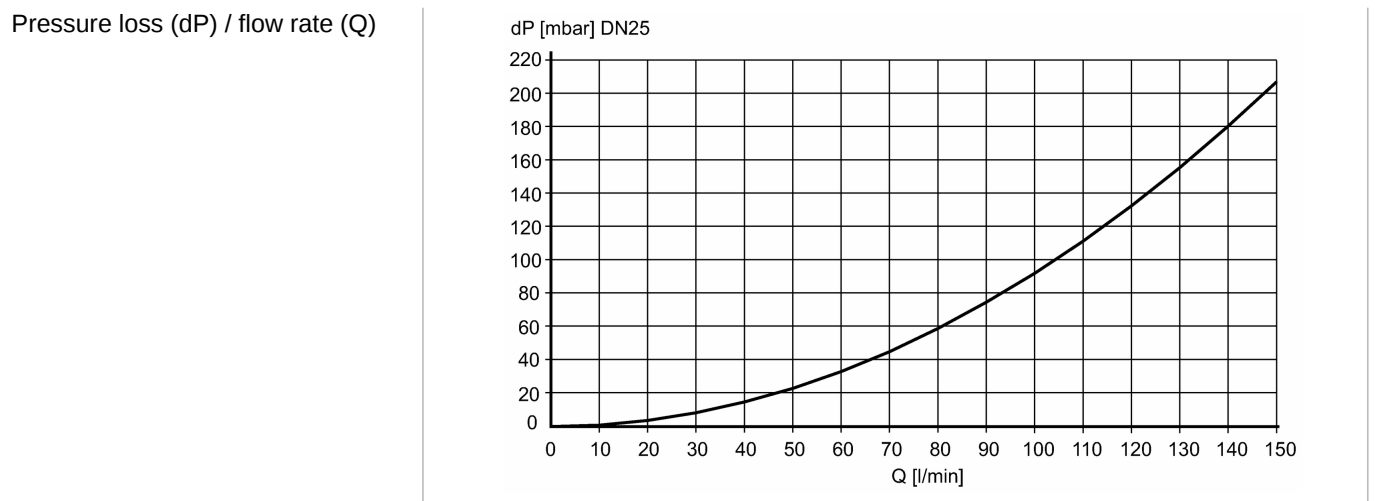
Output function	analog
Analog output	4...20 mA
Max. load [Ω]	$< (U_b - 8 \text{ V}) / 20 \text{ mA}$ 800 at $U_b = 24 \text{ V}$

Measuring / setting range

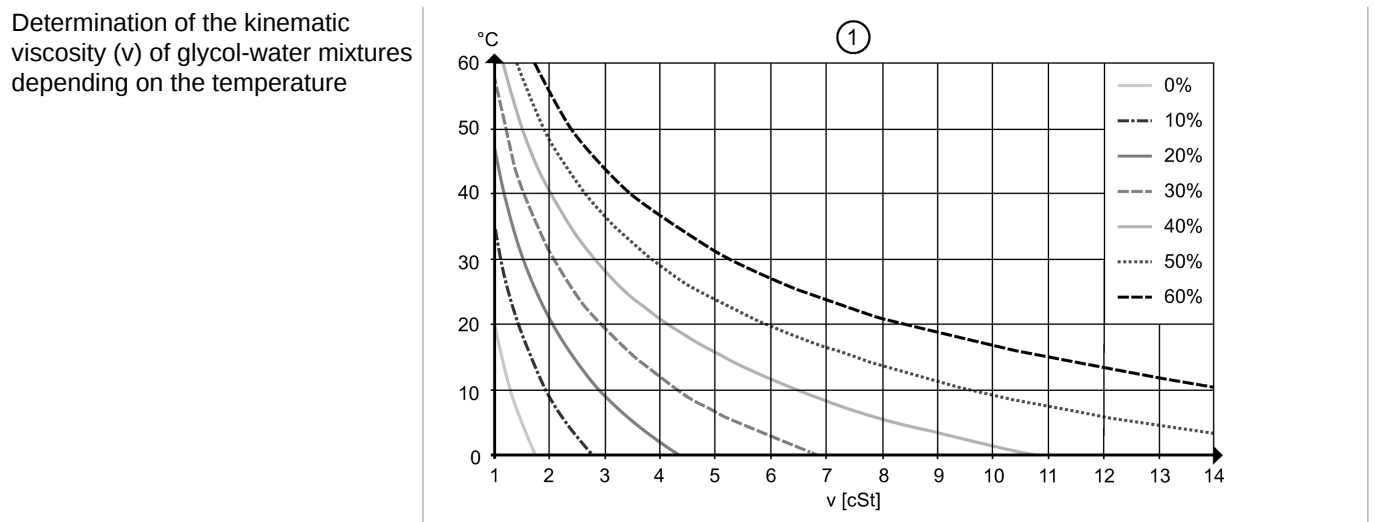
Flow monitoring		
Measuring range	9...150 [l/min]	0.283...4.709 [m/s]
Output curve	Water: $Q \text{ [l/min]} = 9.375 \times (I - 4 \text{ mA})$ Water-glycol: $Q \text{ [l/min]} = 9.375 \times (I - 4 \text{ mA}) - Q_0$, see figure (2)	
Temperature monitoring		
Measuring range [$^{\circ}\text{C}$]	-40...100	
Internal heating temperature probe	1 K/mW	

Accuracy / deviations

Flow monitoring	
Accuracy	$Q < 50 \% \text{ MEW (water): } < 1 \% \text{ MEW}$ $Q > 50 \% \text{ MEW (water): } < 2 \% \text{ MW}$
Repeatability	0.2; [% of the final value]



Temperature monitoring	
Accuracy [K]	$\pm 0.3 \pm 0.005 \times T$



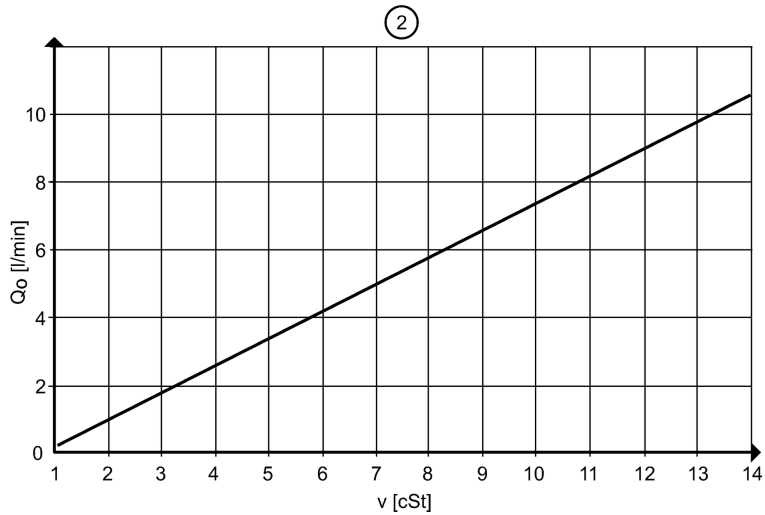
SV8050

SVM54XXD0KG/US-100

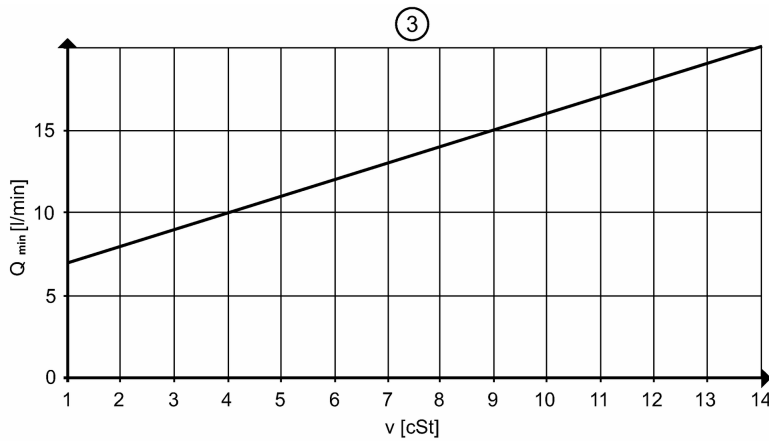
Flow sensors

Determination of the compensation value Q_0 for glycol-water mixtures

$v < 4 \text{ cSt}$:
measuring accuracy of 3 % MEW
 $4 < v < 14 \text{ cSt}$:
measuring accuracy of 4 % MEW



Response threshold Q_{min} depending on the kinematic viscosity



Reaction times

Power-on delay time [s]	< 2
Flow monitoring	
Response time [s]	< 0.5

Environment

Cavitation	$P(\text{absolute discharge}) / P(\text{difference}) > 5.5$ to avoid cavitation
Ambient temperature [°C]	-15...85
Storage temperature [°C]	-30...85
Protection	IP 65

Tests / approvals

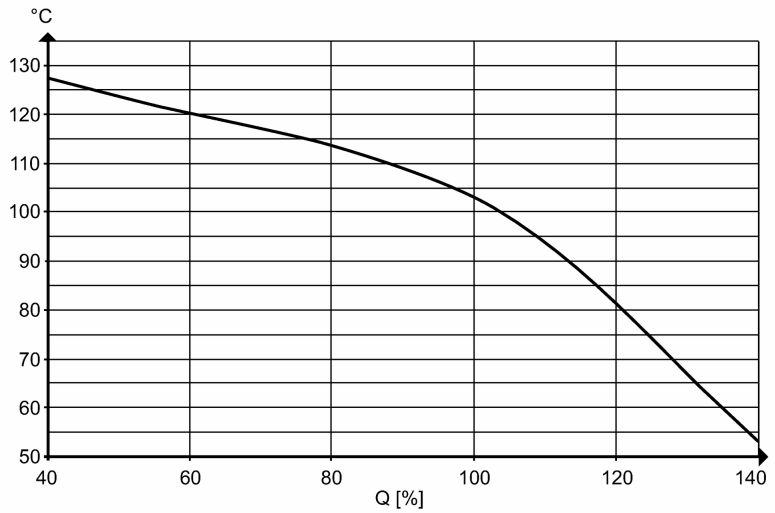
Pressure equipment directive	article 3, section 3 - sound engineering practice
EMC	EN 61326-2-3
Shock resistance	DIN EN 60068-2-27 30 g (11 ms)
Vibration resistance	DIN EN 60068-2-6 with water 10...61 Hz: 1 mm with water 61...2000 Hz: 2 g
MTTF [Years]	380

SV8050

SVM54XXD0KG/US-100

Flow sensors

Minimum lifetime 10 years referred to flow and high medium temperatures



Mechanical data

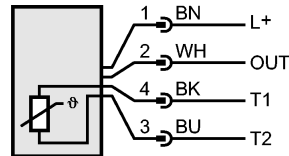
Process connection	G 1¼
Materials (wetted parts)	ETFE; PA 6T; FKM
Housing materials	PA 6T
Tightening torque [Nm]	15
Weight [kg]	0.21

Electrical connection

Connection	M12 connector; gold-plated contacts
------------	-------------------------------------

Wiring

- Core colors
- BK black
 - BN brown
 - BU blue
 - WH white



OUT: analog
 T1 / T2: Pt1000
 Colours to DIN EN 60947-5-2

Remarks

Remarks	MW = measured value MEW = final value of the measuring range
---------	---

Pack quantity [piece]	1
-----------------------	---