SV5050

Vortex flow meter

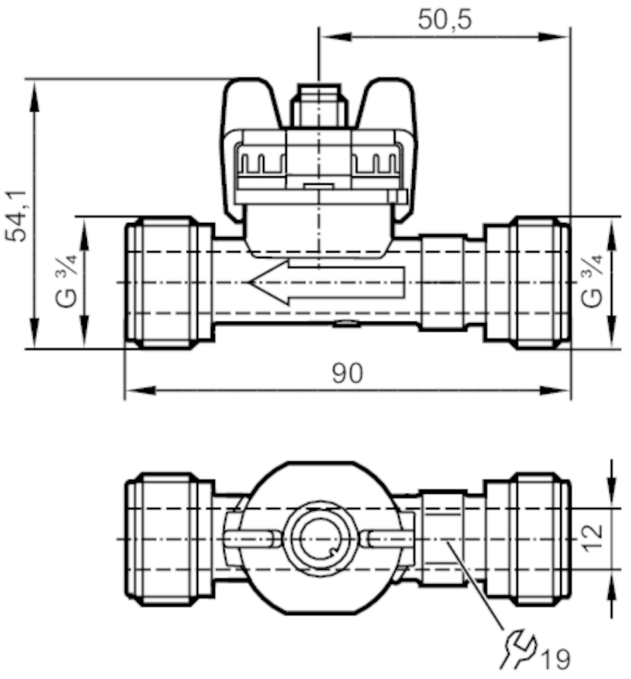
SVM34XXXD0KG/US-100

Article to be discontinued

Discontinuation date: 12/31/2025

Alternative articles: SV5051

When selecting an alternative article and accessories please note that technical data may differ!



CE

Product characteristics			
Number of inputs and outputs		Number of analog outputs: 1	
Measuring range		1.8...32 l/min	0.265...4.716 m/s
Process connection		threaded connection G 3/4 external thread DN10	
Application			
System		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. burst pressure		25 bar	2.5 MPa
Pressure rating		12 bar	1.2 MPa
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	

SV5050

Vortex flow meter

SVM34XXXD0KG/US-100

Power-on delay time	[s]	< 2	
Measuring principle		Vortex	
Inputs / outputs			
Number of inputs and outputs		Number of analog outputs: 1	
Outputs			
Total number of outputs		1	
Output signal		analog signal	
Number of analog outputs		1	
Analog 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) - Qo see Figure 2)	
Max. load	[Ω]	< (Ub - 8 V) / 20 mA; Ub = 24 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	[°C]	-40...100	
Accuracy / deviations			
Flow monitoring			
Accuracy (in the measuring range)		Q < 50 % MEW: < 1 % MEW / Q > 50 % MEW: < 2 % MW; (water)	
Repeatability		0,2; (% of the final value)	
Temperature monitoring			
Accuracy	[K]	± 0,3 ± 0,005 x T	
Reaction 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(absolute) discharge / P(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	
Housing		rectangular	
Dimensions	[mm]	90 x 30.22 x 54.1	
Material		PA 6T	

SV5050

Vortex flow meter

SVM34XXXD0KG/US-100

Materials (wetted parts)		ETFE; PA 6T; FKM
Tightening torque	[Nm]	12
Process connection		threaded connection G 3/4 external thread DN10

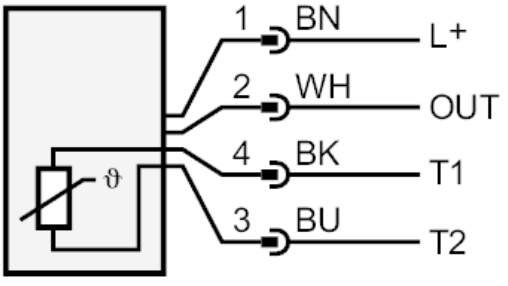
Remarks

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:	analog output
T1 / T2:	Pt1000
	Colors to DIN EN 60947-5-2
	Core colors :
BK =	black
BN =	brown
BU =	blue
WH =	white

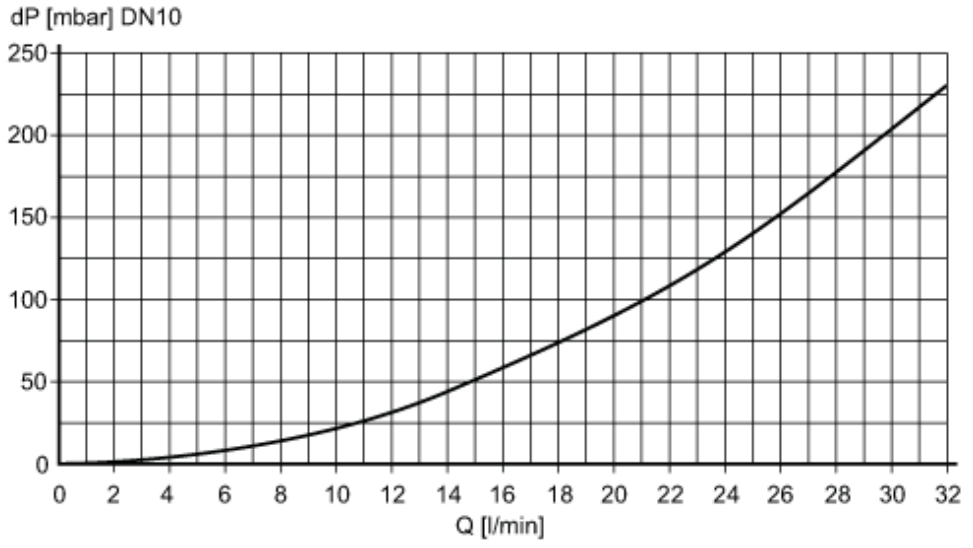
SV5050

Vortex flow meter

SVM34XXXD0KG/US-100

Diagrams and graphs

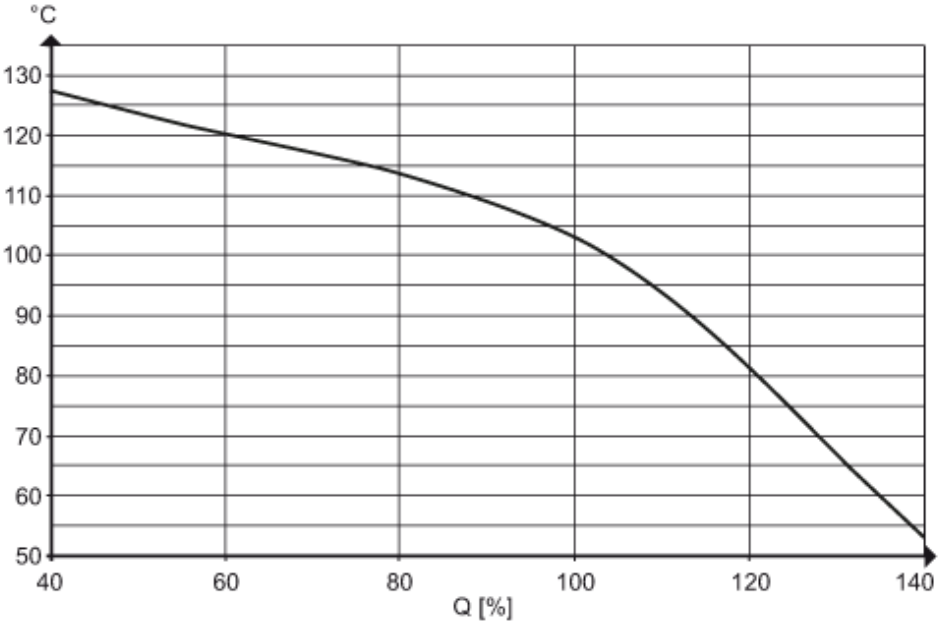
Pressure loss



dP Pressure loss

Q volumetric flow quantity

Minimum lifetime 10 years referred to flow and high medium temperatures

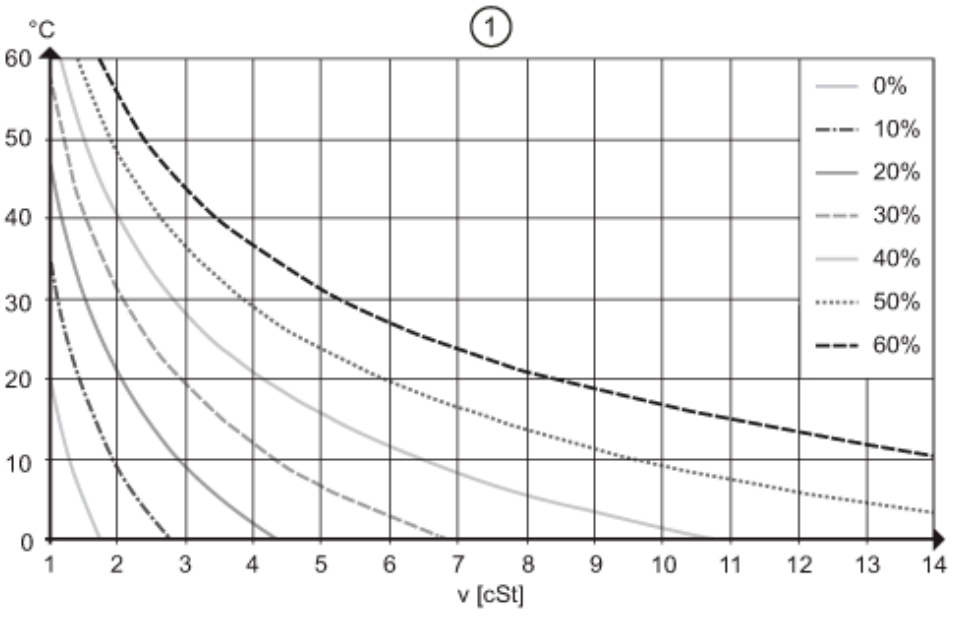


SV5050

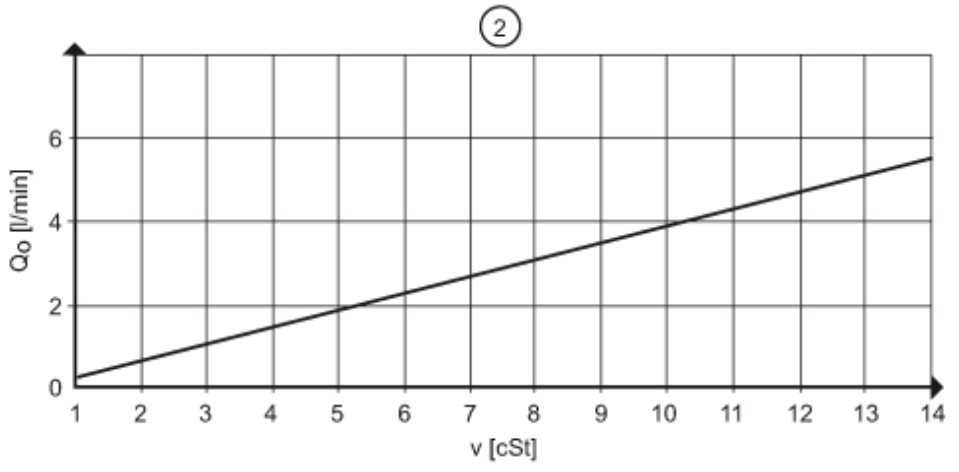
Vortex flow meter

SVM34XXXD0KG/US-100

Determination of the kinematic viscosity (v) of glycol-water mixtures depending on the temperature



determination of the compensation value Qo for glycol-water mixtures



v < 4 cSt measuring accuracy 3% MEW

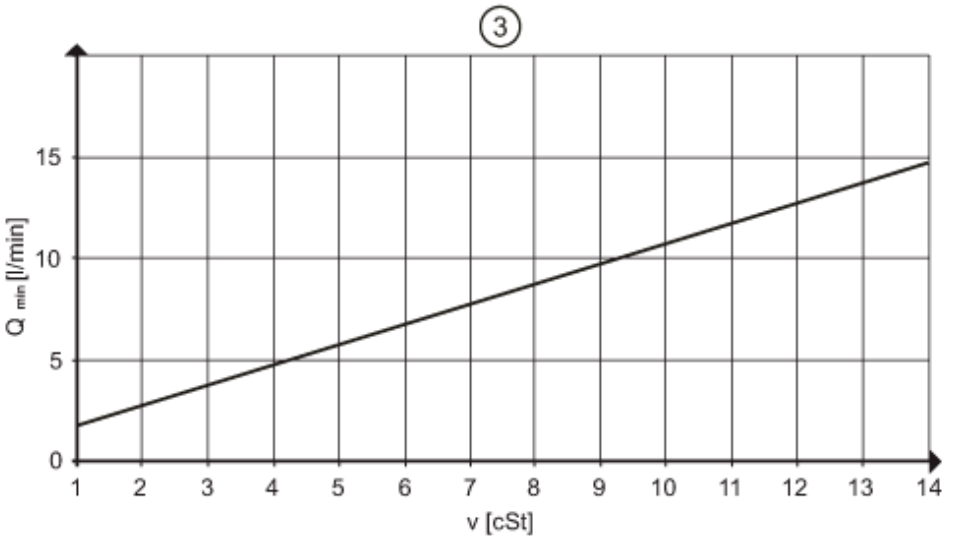
4 < v < 14 cSt measuring accuracy 4% MEW

SV5050

Vortex flow meter

SVM34XXXD0KG/US-100

viscosity



Response threshold Q(min) depending on the kinematic viscosity

pressure rating (bar)