

SV5050

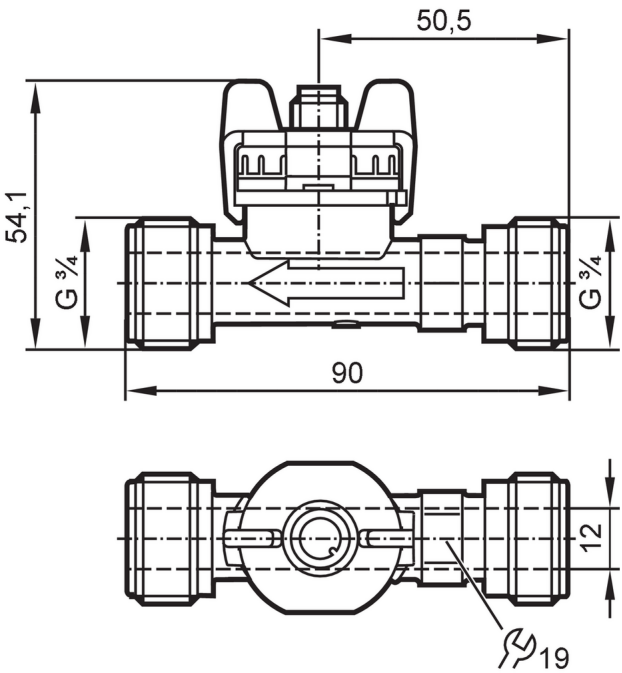


Vortex flow meter

SVM34XXD0KG/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!



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

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. 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	
Power-on delay time [s]	< 2	
Measuring principle	Vortex	



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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	
Materials (wetted parts)	ETFE; PA 6T; FKM	
Tightening torque [Nm]	12	

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Process connection	threaded connection G 3/4 external thread DN10
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Remarks

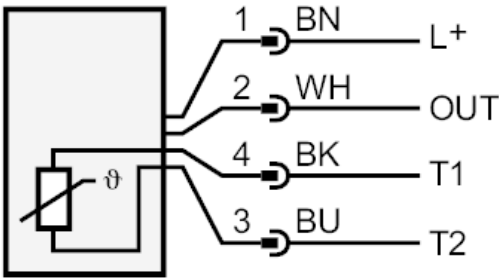
Remarks	MW = Measured value
	MEW = Final value of the measuring range
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, 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

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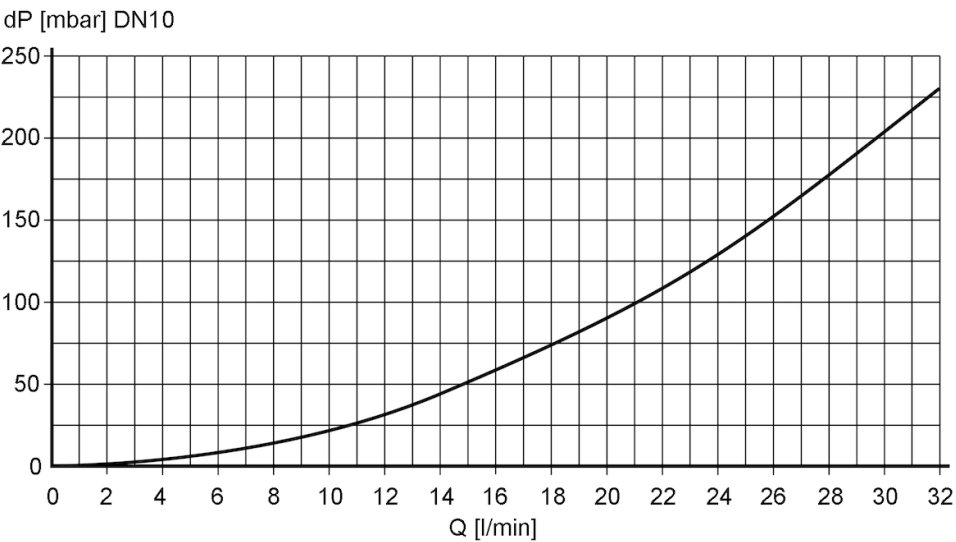


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Diagrams and graphs

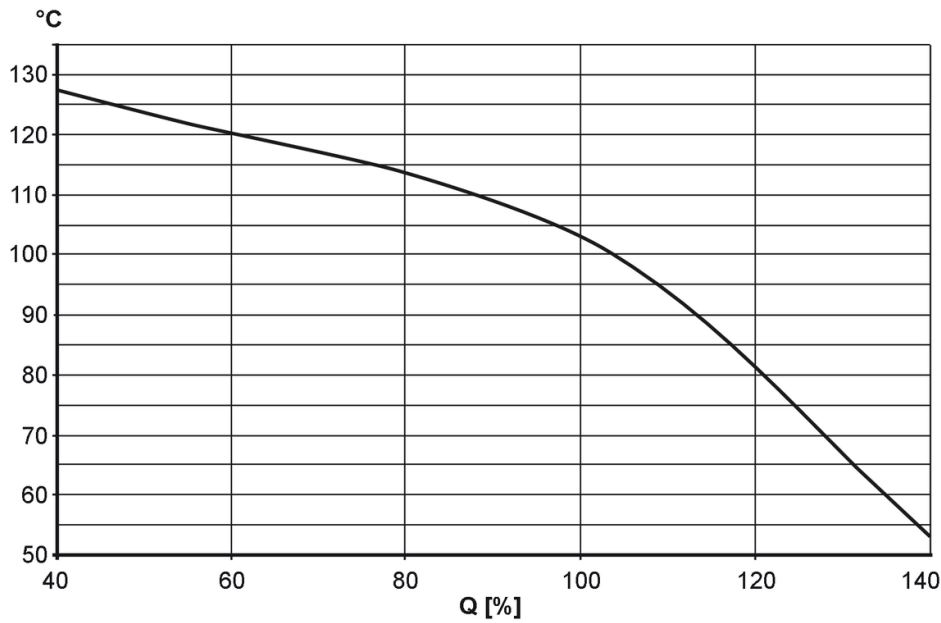
Pressure loss



dP Pressure loss

Q volumetric flow quantity

Minimum lifetime 10 years
referred to flow and high medium
temperatures

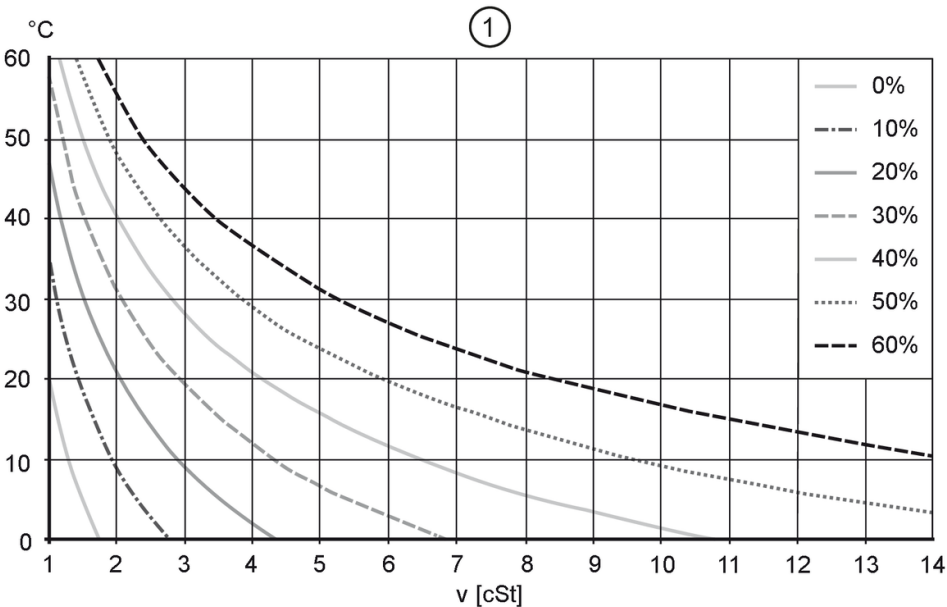




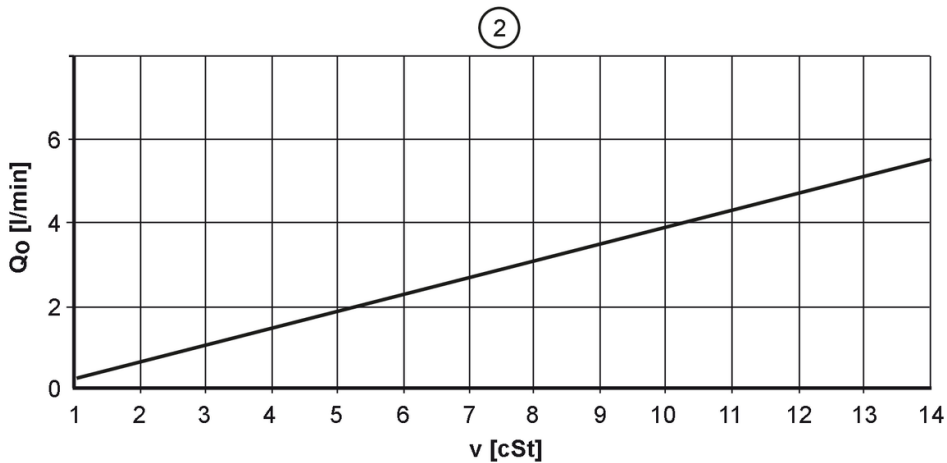
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Determination of the kinematic viscosity (ν) of glycol-water mixtures depending on the temperature



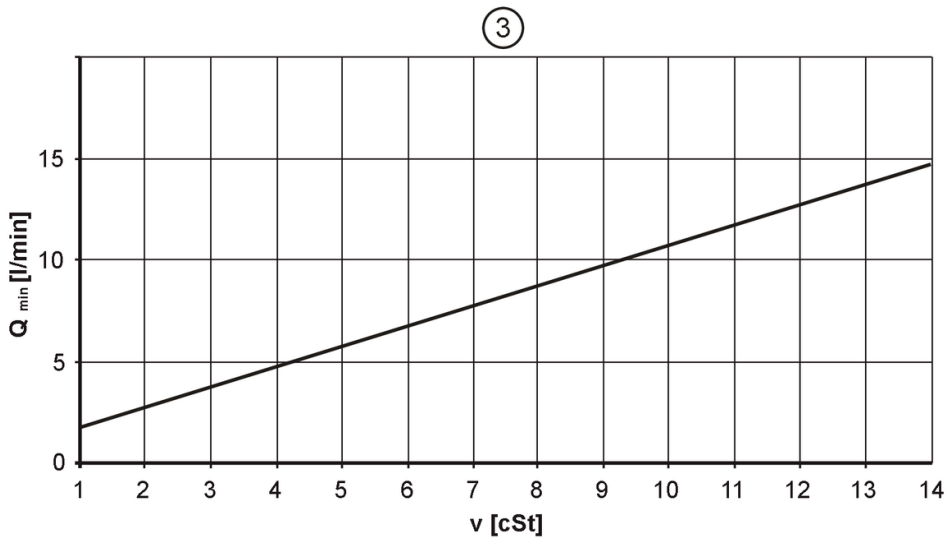
determination of the compensation value Q_0 for glycol-water mixtures



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

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

Response threshold Q_{min} depending on the kinematic viscosity



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pressure rating (bar)

