

SV4150

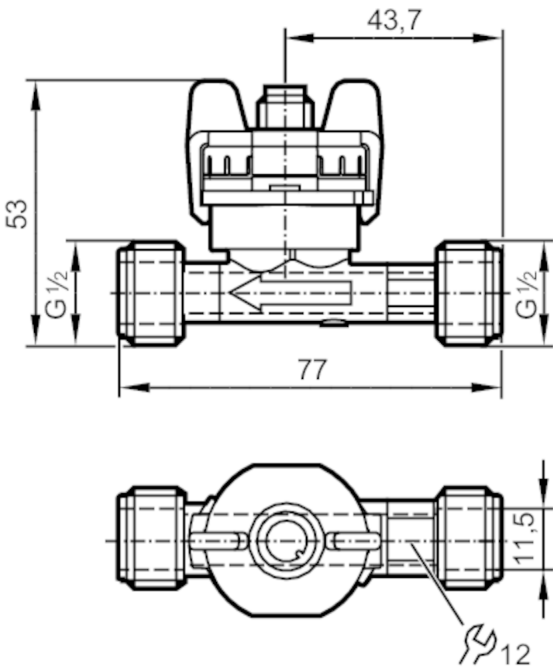


Vortex flow meter

SVM12XXD0KG/US-100

Article to be discontinued
Discontinuation date: 12/31/2025

Alternative articles: SV4151
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	0.9...15 l/min	0.133...2.21 m/s
Process connection	threaded connection G 1/2 external thread DN8	

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	

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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; ($Q [l/min] = 0,938 \times (I - 4 \text{ mA})$)
Max. load	[Ω]	$< (U_b - 8 \text{ V}) / 20 \text{ mA}$; $U_b = 24 \text{ V}$: 800
Measuring/setting range		
Measuring range		0.9...15 l/min 0.133...2.21 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)		$Q < 50 \% \text{ MEW: } < 1 \% \text{ MEW} / Q > 50 \% \text{ MEW: } < 2 \% \text{ MW; (water)}$
Repeatability		0,2; (% of the final value)
Temperature monitoring		
Accuracy	[K]	$\pm 0,3 \pm 0,005 \times T$
Reaction times		
Flow monitoring		
Response time	[s]	0.5
Operating conditions		
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
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]	65
Housing		rectangular
Dimensions	[mm]	77 x 30.22 x 53
Material		PA 6T

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Materials (wetted parts)	ETFE; PA 6T; EPDM
Tightening torque [Nm]	12
Process connection	threaded connection G 1/2 external thread DN8

Remarks

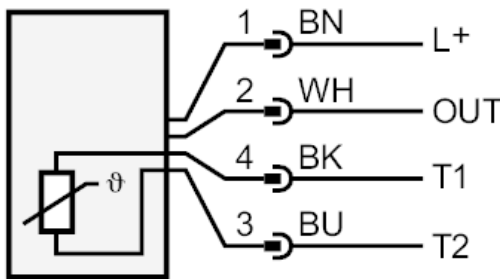
Remarks	MW = Measured value
	MEW = Final value of the measuring range
Pack quantity	1 pcs.

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

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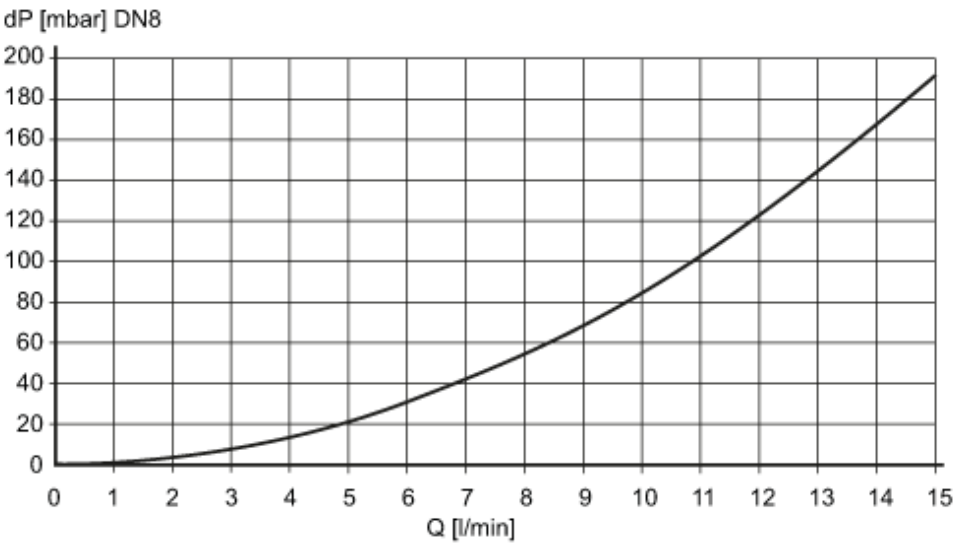


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Diagrams and graphs

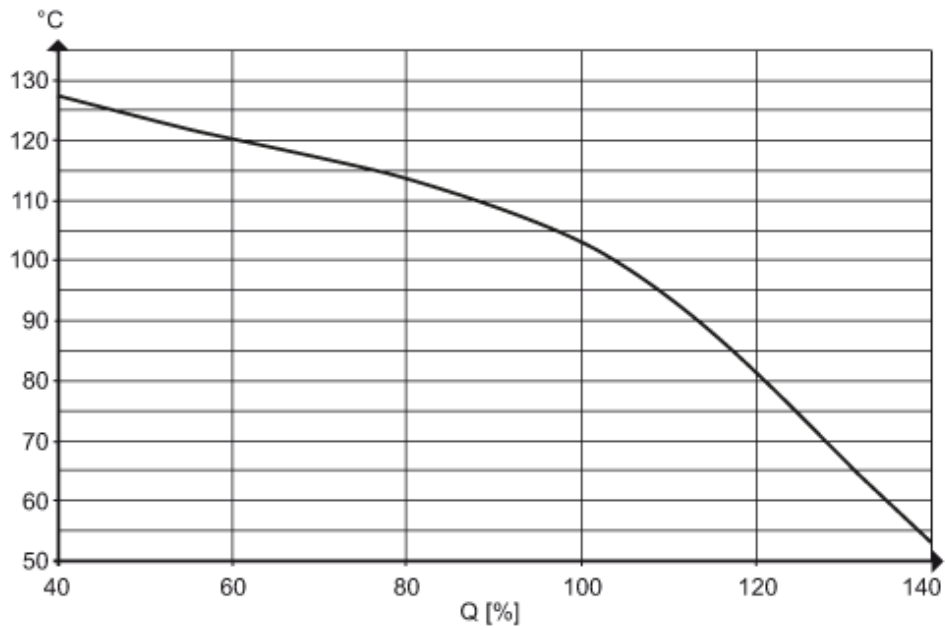
Pressure loss



dP Pressure loss

Q volumetric flow quantity

Minimum lifetime 10 years
referred to flow and high medium
temperatures



pressure rating (bar)

