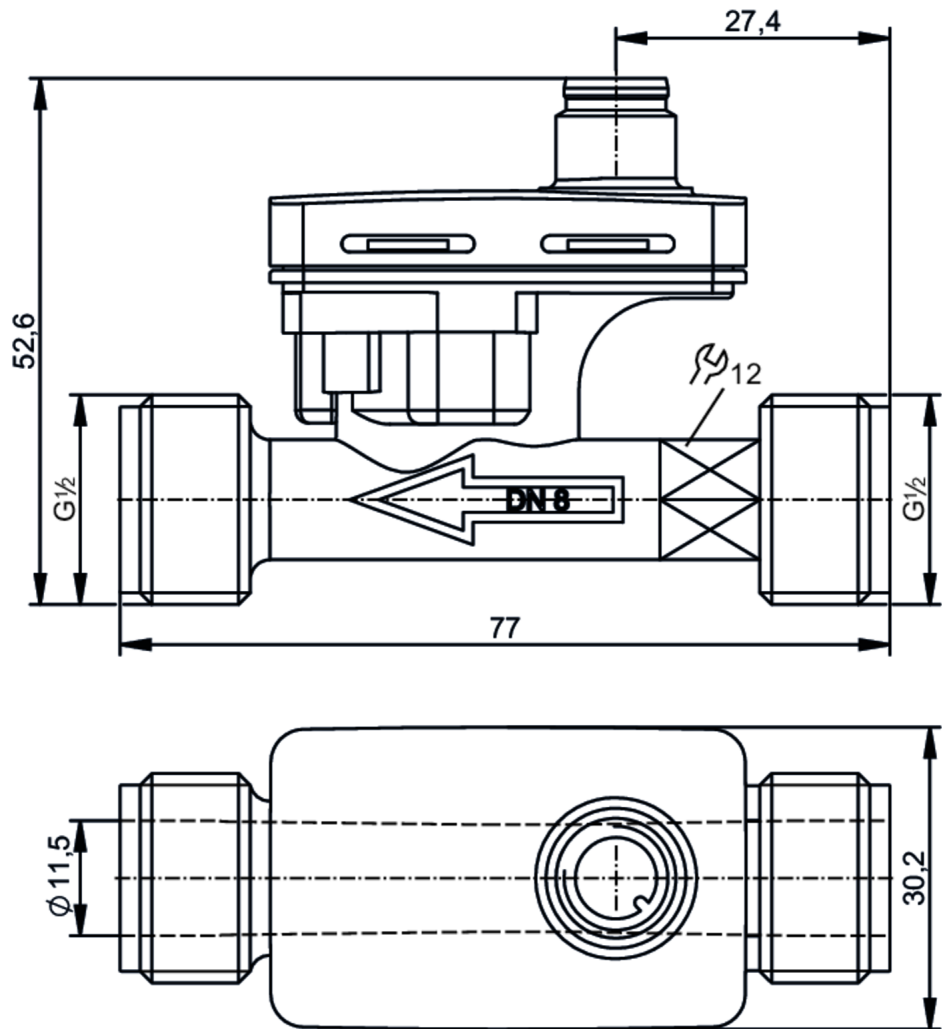


SV4151

Vortex flow meter

SVR12XGXD0KG/US



Product characteristics

Number of inputs and outputs	Number of analogue 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

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	ultra-pure water; water	
Medium temperature [°C]	0...125	
Min. bursting pressure	25 bar	2.5 MPa
Note on min. burst pressure	125 °C	
Pressure rating	16 bar	1.6 MPa
Note on pressure rating	≤ 90 °C	

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Electrical data		
Operating voltage	[V]	8...33 DC
Current consumption	[mA]	< 5
Min. insulation resistance	[MΩ]	100; (500 V DC)
Protection class		III
Power-on delay time	[s]	< 2
Measuring principle		Vortex
Inputs / outputs		
Number of inputs and outputs		Number of analogue outputs: 1
Outputs		
Total number of outputs		1
Output signal		analogue signal
Number of analogue outputs		1
Analogue 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]	0...125
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]	0.34; (T09)
Temperature monitoring		
Dynamic response T05 / T09	[s]	< 10 / < 30
Operating conditions		
Ambient temperature	[°C]	-15...85
Note on ambient temperature		Medium temperature > 0 °C: -40...85
Storage temperature	[°C]	-40...85
Protection		IP 65
Cavitation		$P(\text{absolute}) \text{ discharge} / P(\text{difference}) > 5.5$ to avoid cavitation
Tests / approvals		
EMC	EN IEC 61326-1:2021	
Shock resistance	DIN EN 60068-2-27	30 g (11 ms)

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Vibration resistance	DIN EN 60068-2-6	with water / 10...61 Hz 1 mm
		with water / 61...2000 Hz 2 g
MTTF [years]	395.9	
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data		
Weight [g]	68.95	
Housing	rectangular	
Dimensions [mm]	77 x 30.2 x 52.6	
Materials	Housing: PPS 40% glass fibre; electronics: PC 10% glass fibre	
Materials (wetted parts)	sensor: PPSU; Pipe section: PPS 40% glass fibre; Sealing: EPDM	
Tightening torque [Nm]	12	
Process connection	threaded connection G 1/2 external thread DN8	

Displays / operating elements		
Display		colour display 1,44", 128 x 128 pixels
		2 x LED, yellow

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

Electrical connection

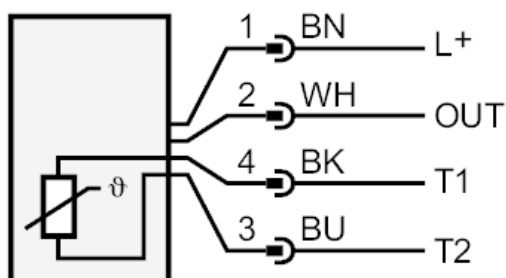
Connector: 1 x M12; coding: A; Contacts: gold-plated



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Connection



OUT: analogue output

T1 / T2: Pt1000

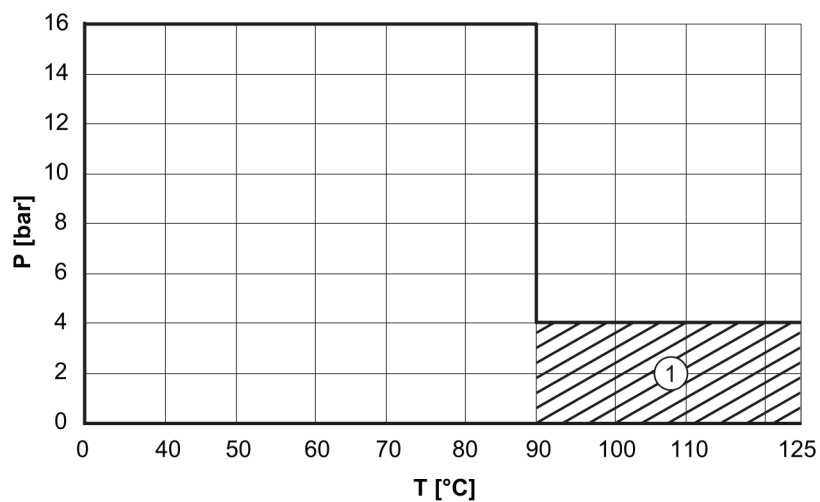
colours to DIN EN 60947-5-2

Core colours :

BK = black
 BN = brown
 BU = blue
 WH = white

Diagrams and graphs

pressure rating curve



P [bar] = pressure

T [°C] = temperature

1 = permanent

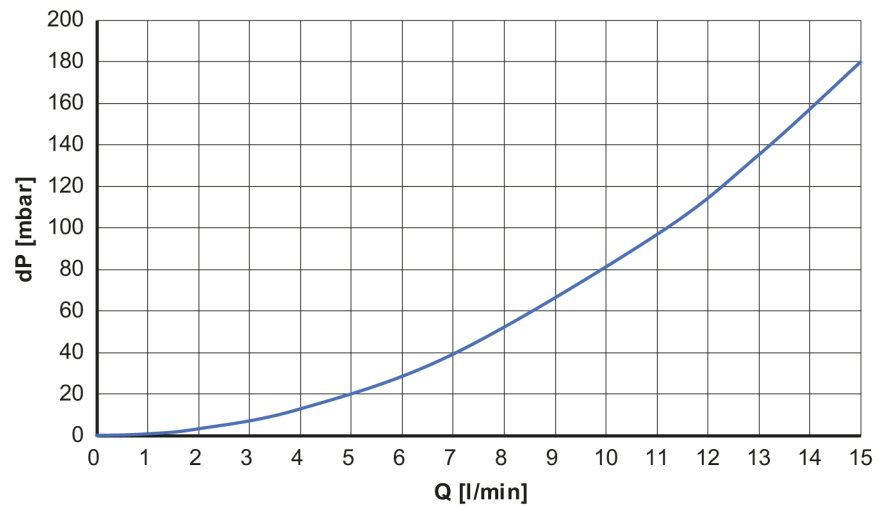
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Pressure loss



dP [mbar] = Pressure loss

Q [l/min] = volumetric flow quantity