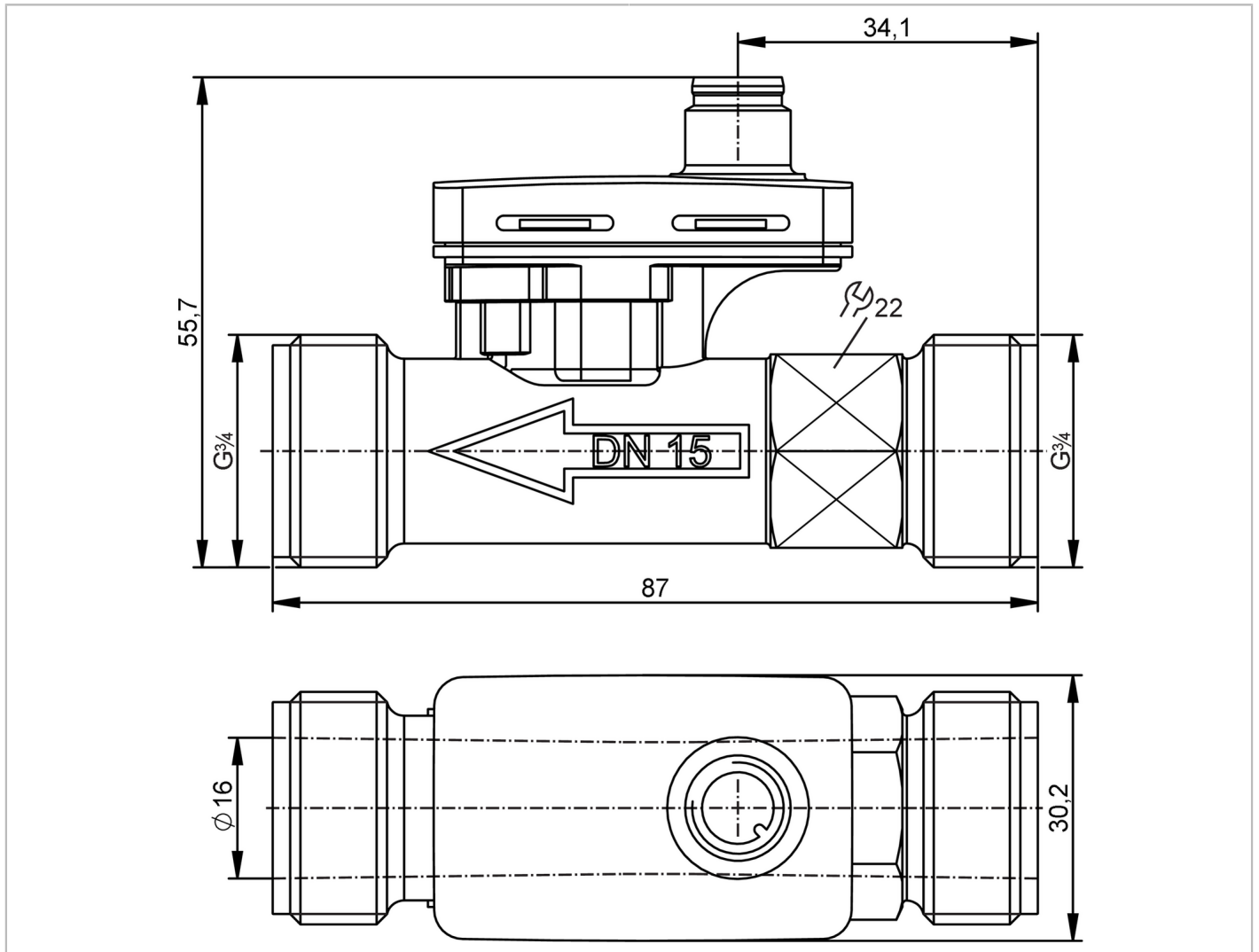


SV6051



Vortex flow meter

SVR34XGXD0KG/US



Product characteristics

Number of inputs and outputs	Number of analogue outputs: 1	
Measuring range	3.5...50 l/min	0.29...4.145 m/s
Process connection	threaded connection G 3/4 external thread DN15	

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; glycol solutions; coolants	
Medium temperature [°C]	-15...125	
Min. burst 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
Max. load [Ω]		< (U _b - 8 V) / 20 mA; U _b = 24 V: 800
Measuring/setting range		
Measuring range	3.5...50 l/min	0.29...4.145 m/s
Temperature monitoring		
Internal heating temperature probe		1 K/mW
Measuring range [°C]		-15...125
Accuracy / deviations		
Flow monitoring		
Accuracy (in the measuring range)	water	Q < 50 % MEW: < 1 % MEW / Q > 50 % MEW: < 2 % MEW
	glycol solutions (35%)	2 > v < 6 cSt: ± 5% MEW / 6 > v < 15 cSt: ± 10% MEW
Repeatability		0,2; (% of the final value)
Temperature monitoring		
Accuracy [K]		± 0,3 ± 0,005 x T
Response times		
Flow monitoring		
Response time [s]		0.28; (T ₀₉)
Temperature monitoring		
Dynamic response T ₀₅ / T ₀₉ [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(absolute) discharge / P(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
UL approval	File number UL	E364788
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data

Weight [g]		81.45
Housing		rectangular
Dimensions [mm]		87 x 30.2 x 55.7
Materials	Housing: PPS 40% glass fibre; electronics: PC 10% glass fibre	
Materials (wetted parts)	sensor: PPSU; Pipe section: PPS 40% glass fibre; Sealing: FKM	
Tightening torque [Nm]		12
Process connection	threaded connection G 3/4 external thread DN15	

Remarks

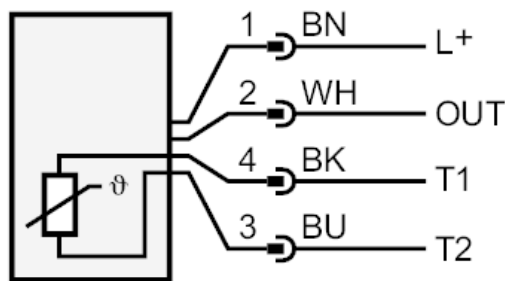
Remarks	MW = measured value	
	MEW = Final value of the measuring range	
Pack quantity	1 pcs.	

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



Connection



OUT: analogue output
 T1 / T2: Pt1000
 colours to DIN EN 60947-5-2

Core colours :

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

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Other data

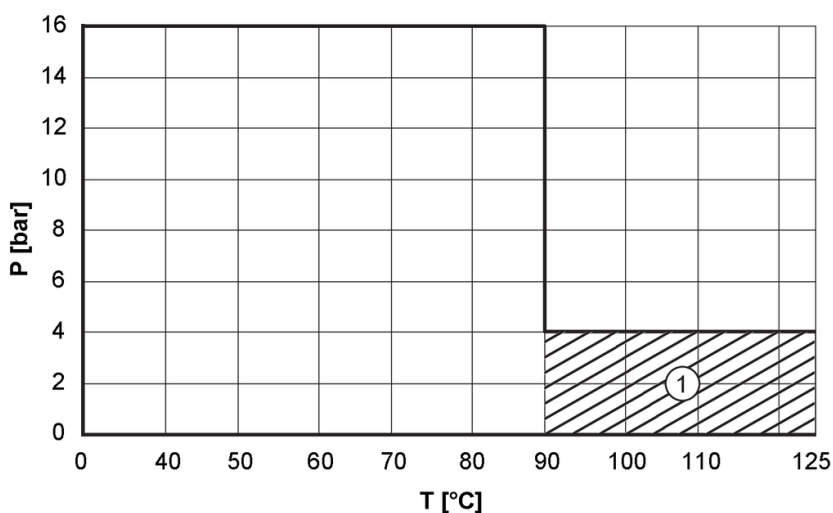
determination using the compensation value and the response threshold for glycol-water mixtures

determination of the compensation value Q0	[l/min]	$3.125 \times (I - 4mA) - 0.6v + 0,6$
determination of the response threshold Qmin	[l/min]	$2.5 + v$
v =	kinematische Viskosität	

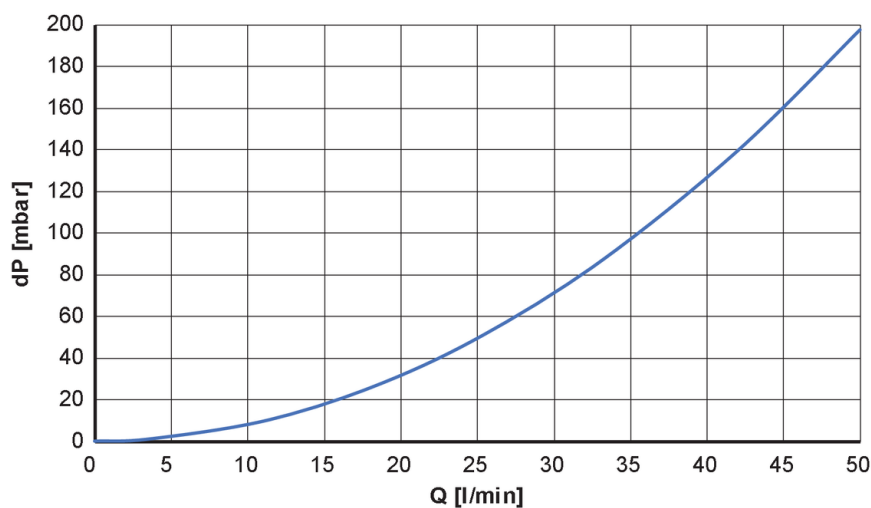
Diagrams and graphs

Pressure rating

Pressure loss



P [bar] = pressure
 T [°C] = temperature
 1 = permanent



dP [mbar] = Pressure loss
 Q [l/min] = volumetric flow quantity