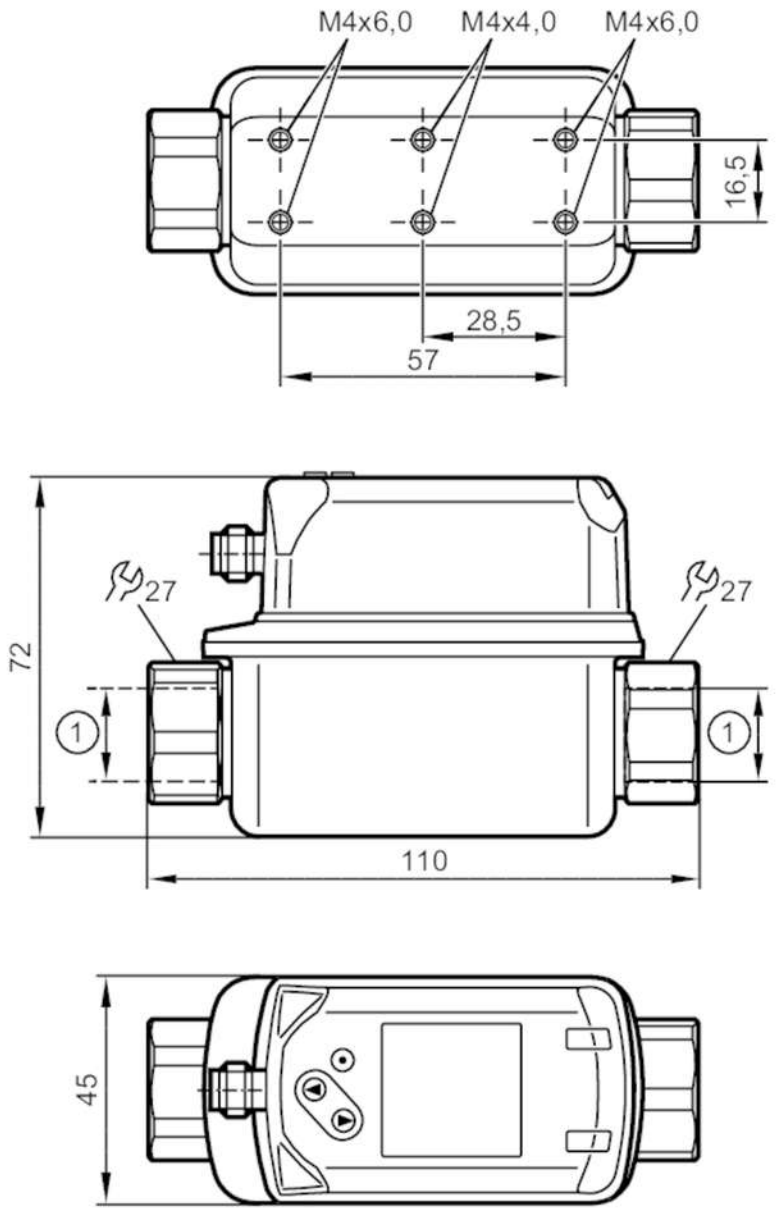
SV4504

Vortex flow meter with display

SVK12XXX50KG/US-100



1 Rc 1/2
DN 8

Product characteristics			
Number of inputs and outputs		Number of analogue outputs: 2	
Measuring range		1...20 l/min	0.06...1.2 m³/h
Process connection		threaded connection Rc 1/2 internal thread DN8	

Application		
Special feature		Gold-plated contacts
Application		for industrial applications
Media		water; glycol solutions; coolants
Medium temperature	[°C]	-10...90

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Pressure rating		12 bar	1.2 MPa
Note on pressure rating		up to 40 °C	
Electrical data			
Operating voltage	[V]	18...30 DC	
Current consumption	[mA]	< 30	
Min. insulation resistance	[MΩ]	100; (500 V DC)	
Protection class		III	
Reverse polarity protection		yes	
Power-on delay time	[s]	< 3	
Measuring principle		Vortex	
Inputs / outputs			
Number of inputs and outputs		Number of analogue outputs: 2	
Outputs			
Total number of outputs		2	
Output signal		analogue signal	
Number of analogue outputs		2	
Analogue current output	[mA]	4...20	
Max. load	[Ω]	500	
Short-circuit protection		yes	
Overload protection		yes	
Measuring/setting range			
Measuring range		1...20 l/min	0.06...1.2 m³/h
Display range		0...24 l/min	0...1.44 m³/h
Resolution		0.1 l/min	0.005 m³/h
Analogue start point ASP		0...16 l/min	0...0.96 m³/h
Analogue end point AEP		4...20 l/min	0.24...1.2 m³/h
In steps of		0.1 l/min	0.005 m³/h
Measuring dynamics		1:20	
Temperature monitoring			
Measuring range	[°C]	-10...90	
Display range	[°C]	-30...110	
Resolution	[°C]	0.5	
Analogue start point	[°C]	-10...70	
Analogue end point	[°C]	10...90	
In steps of	[°C]	0.5	
Accuracy / deviations			
Flow monitoring			
Accuracy (in the measuring range)		± 2 % MEW; (water)	
Repeatability		± 0,5 % MEW	
Temperature monitoring			
Accuracy	[K]	± 1	

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Response times			
Flow monitoring			
Response time	[s]	1; (dAP = 0)	
Damping process value dAP	[s]	0...5	
Temperature monitoring			
Dynamic response T05 / T09	[s]	T09 = 6	
Software / programming			
Parameter setting options		Damping for the analogue output dAA; Display unit	
Operating conditions			
Ambient temperature	[°C]	0...60	
Note on ambient temperature		medium temperature < 80 °C	
		medium temperature < 90 °C: 0...50 °C	
Storage temperature	[°C]	-20...80	
Protection		IP 65; IP 67	
Tests / approvals			
EMC		DIN EN 61000-6-2	
		DIN EN 61000-6-3	
CPA approval		model number	001VO
		accuracy class	-
		maximum allowable error	± 2 % FS
		Q (min)	0,09 m³/h
		Q (t)	0,24 m³/h
		Q (max)	1,2 m³/h
Shock resistance		DIN EN 60068-2-27	5 g (11 ms)
Vibration resistance		DIN EN 60068-2-6	with water / 10...50 Hz 1 mm
			with water / 50...2000 Hz 2 g
MTTF	[years]	342	
UL approval		UL Approval no.	I002
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data			
Weight	[g]	441.5	
Housing		rectangular	
Dimensions	[mm]	110 x 45 x 72	
Materials		stainless steel (316L/1.4404); PC; PBT+PC-GF30; PPS; TPE-U	
Materials (wetted parts)		stainless steel (316L/1.4404); ETFE; PA 6T; PPS; FKM	
Tightening torque	[Nm]	30	
Process connection		threaded connection Rc 1/2 internal 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.	

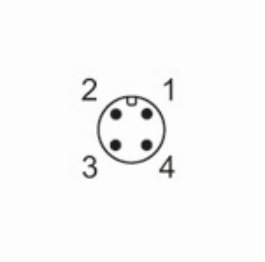
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Vortex flow meter with display

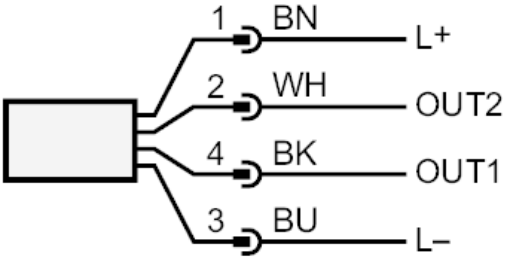
SVK12XXX50KG/US-100

Electrical connection

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



Connection



OUT1:	analogue output Temperature monitoring
OUT2:	analogue output volumetric flow quantity monitoring
	colours to DIN EN 60947-5-2
	Core colours :
BK =	black
BN =	brown
BU =	blue
WH =	white

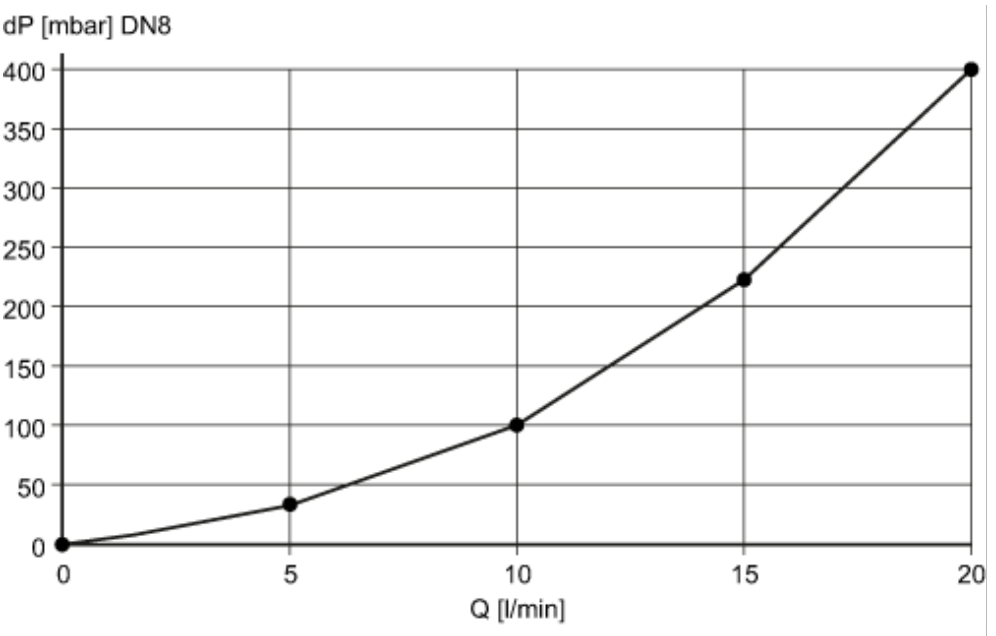
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Diagrams and graphs

Pressure loss



dP Pressure loss

Q volumetric flow quantity

pressure rating (bar)

