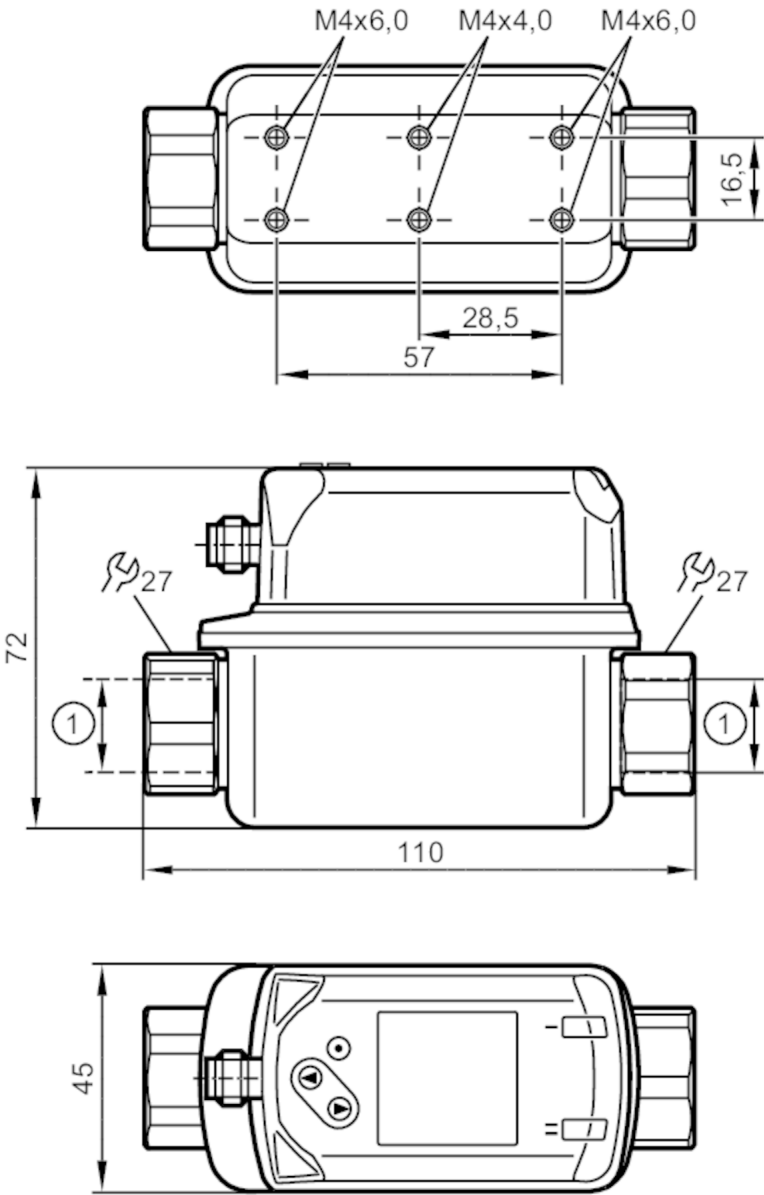


SV4200



Vortex flow meter with display

SVR12XXXIRKG/US-100



1 G 1/2 DN 8



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2	
Measuring range	1...20 l/min	0.06...1.2 m³/h
Process connection	threaded connection G 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	
Pressure rating	12 bar	1.2 MPa



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Note on pressure rating	up to 40 °C	
MAWP for applications according to CRN	[bar]	3.9
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 digital outputs: 2
Outputs		
Total number of outputs		2
Output signal		switching signal; frequency signal; IO-Link; (configurable)
Electrical design		PNP/NPN
Number of digital outputs		2
Output function		normally open / normally closed; (parameterisable)
Max. voltage drop switching output DC	[V]	2.5
Permanent current rating of switching output DC	[mA]	100
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
Set point SP	1.2...20 l/min	0.07...1.2 m³/h
Reset point rP	1...19.8 l/min	0.06...1.19 m³/h
Frequency end point, FEP	4...20 l/min	0.24...1.2 m³/h
In steps of	0.1 l/min	0.005 m³/h
Frequency at the end point FRP	[Hz]	100...1000
Measuring dynamics		1:20
Temperature monitoring		
Measuring range	[°C]	-10...90
Display range	[°C]	-30...110
Resolution	[°C]	0.5
Set point SP	[°C]	-9...90
Reset point rP	[°C]	-10...89
In steps of	[°C]	0.5
Frequency start point, FSP	[°C]	-10...70
Frequency end point, FEP	[°C]	10...90



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Frequency at the end point FRP	[Hz]	100...1000	
Accuracy / deviations			
Flow monitoring			
Accuracy (in the measuring range)		± 2 % MEW; (water)	
Repeatability		± 0,5 % MEW	
Temperature monitoring			
Accuracy	[K]	± 1	
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	hysteresis / window; normally open / normally closed; switching logic; frequency output; switch-on/switch-off delay; Damping; Display unit		
Interfaces			
Communication interface	IO-Link		
Transmission type	COM2 (38,4 kBaud)		
IO-Link revision	1.1		
SDCI standard	IEC 61131-9		
Profiles	Smart Sensor - SSP 0	Generic Profiled Sensor	
	Function	Device identification	
	Function	Process data variable	
	Function	Device diagnosis	
SIO mode	yes		
Required master port type	A		
Process data analogue	2		
Process data binary	2		
Min. process cycle time	[ms]	3	
Supported DeviceIDs	Type of operation	DeviceID	
	default	484	
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		

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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.	I001
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data

Weight	[g]	474
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 G 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.

Electrical connection

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



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Connection

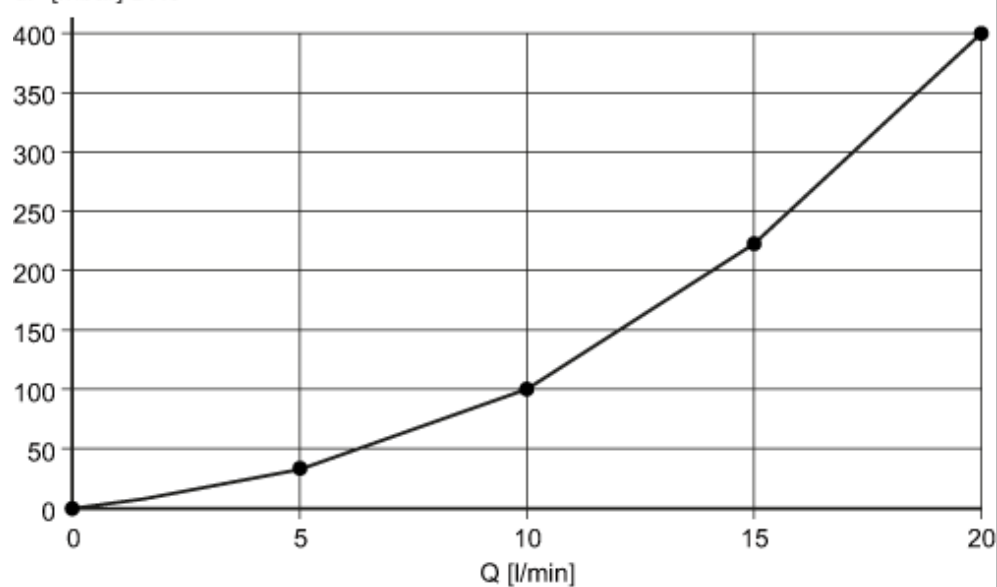


OUT1:	Flow monitoring
-	switching output
-	frequency output
-	IO-Link
OUT2:	flow monitoring and temperature monitoring
-	switching output
-	frequency output
	colours to DIN EN 60947-5-2
	Core colours :
BK =	black
BN =	brown
BU =	blue
WH =	white

Diagrams and graphs

Pressure loss

dP [mbar] DN8



dP Pressure loss

Q volumetric flow quantity

SV4200



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pressure rating (bar)

