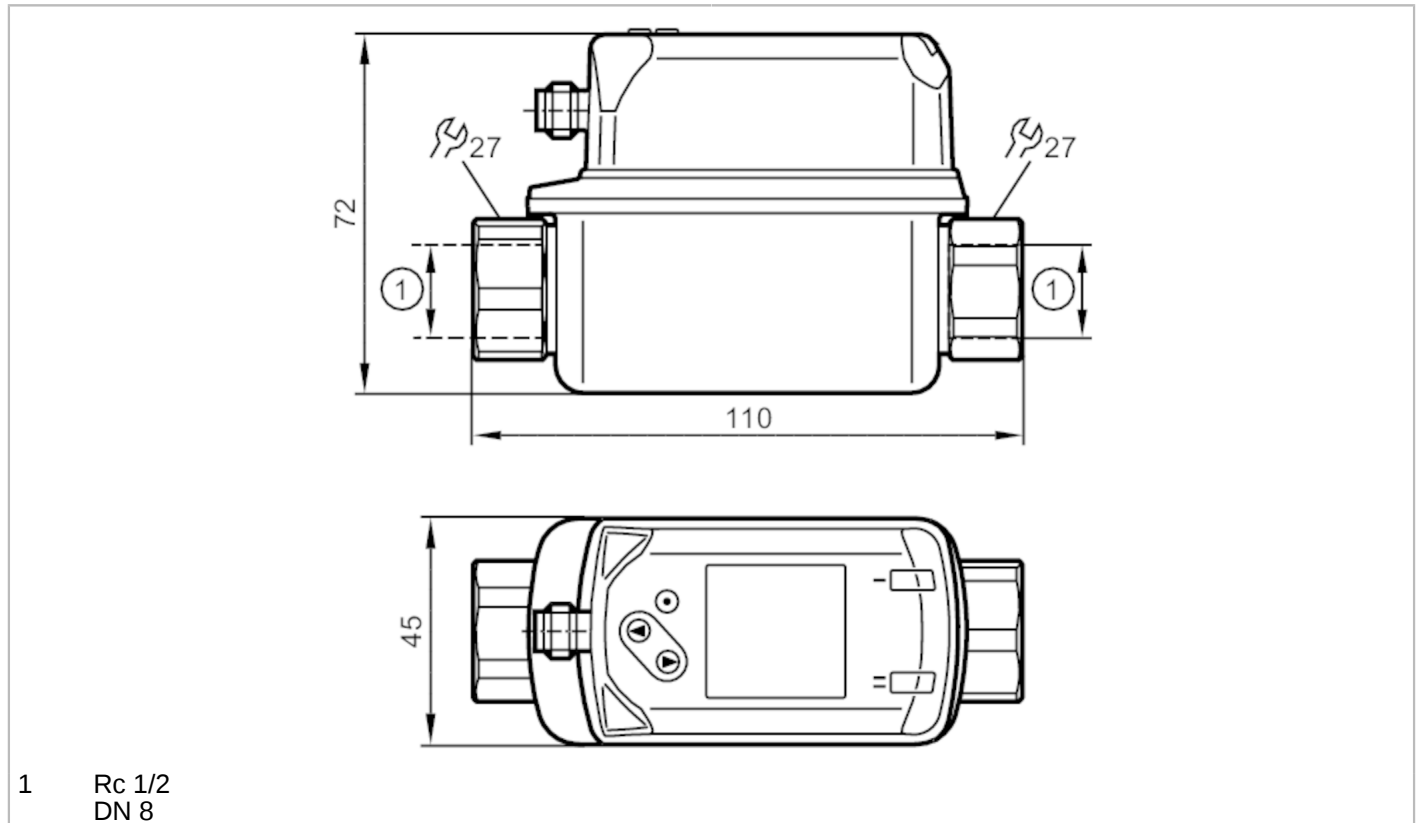


SV4500



Vortex flow meter with display

SVK12XXXIRKG/US-100



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 Rc 1/2 internal thread DN8	

Application

Application	for industrial applications	
Media	water	
Medium temperature [°C]	-10...90	
Pressure rating [bar]	12	
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	

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2	
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Vortex flow meter with display

SVK12XXXIRKG/US-100

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		100...1000 [Hz]
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
Frequency at the end point FRP	[Hz]	100...1000
Accuracy / deviations		
Flow monitoring		
Accuracy (in the measuring range)		± 2 % MEW
Repeatability		± 0,5 % MEW
Temperature monitoring		
Accuracy	[K]	± 1
Response times		
Flow monitoring		
Response time	[s]	1; (dAP = 0)
Damping for the switching output dAP	[s]	0...5

SV4500



Vortex flow meter with display

SVK12XXXIRKG/US-100

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
IO-Link device ID	484 d / 00 01 E4 h
Profiles	Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis
SIO mode	yes
Required master port type	A
Process data analogue	2
Process data binary	2
Min. process cycle time [ms]	3
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
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]	442
Materials	stainless steel (1.4404 / 316L); PC; PBT+PC-GF30; PPS; TPE-U
Materials (wetted parts)	stainless steel (1.4404 / 316L); ETFE; PA 6T; PPS; FKM
Tightening torque [Nm]	30
Process connection	threaded connection Rc 1/2 internal thread DN8
Remarks	
Remarks	MW = measured value MEW = Final value of the measuring range
Pack quantity	1 pcs.
Electrical connection	
Connector: 1 x M12; Contacts: gold-plated	

SV4500

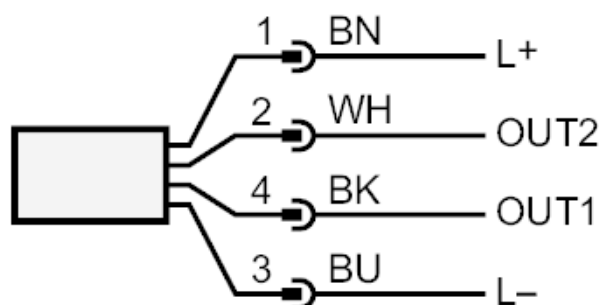


Vortex flow meter with display

SVK12XXXIRKG/US-100



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

SV4500

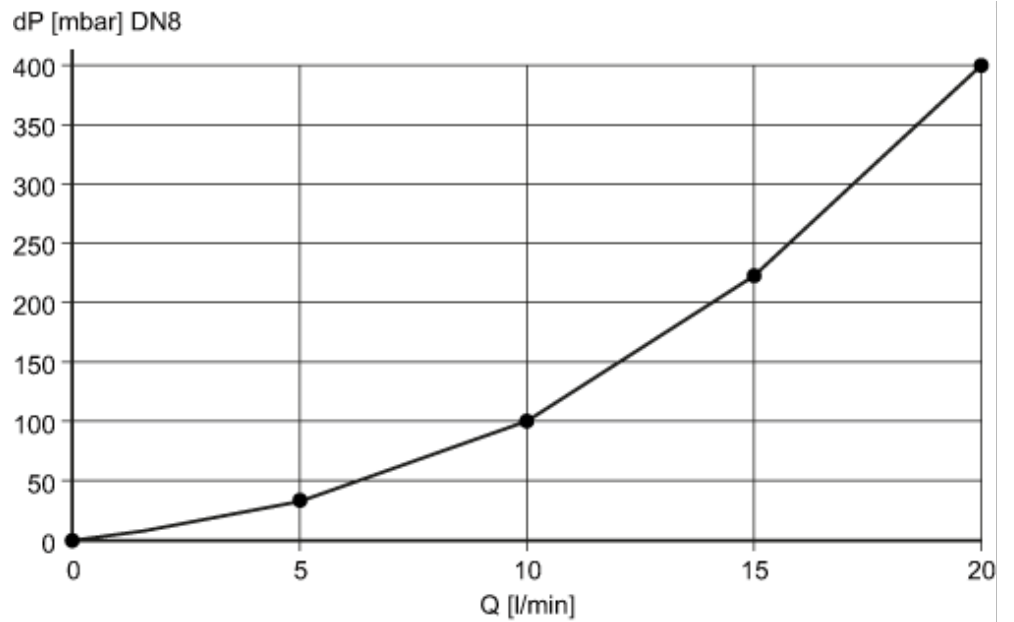


Vortex flow meter with display

SVK12XXXIRKG/US-100

Diagrams and graphs

Pressure loss



dP Pressure loss

Q volumetric flow quantity

pressure rating (bar)

