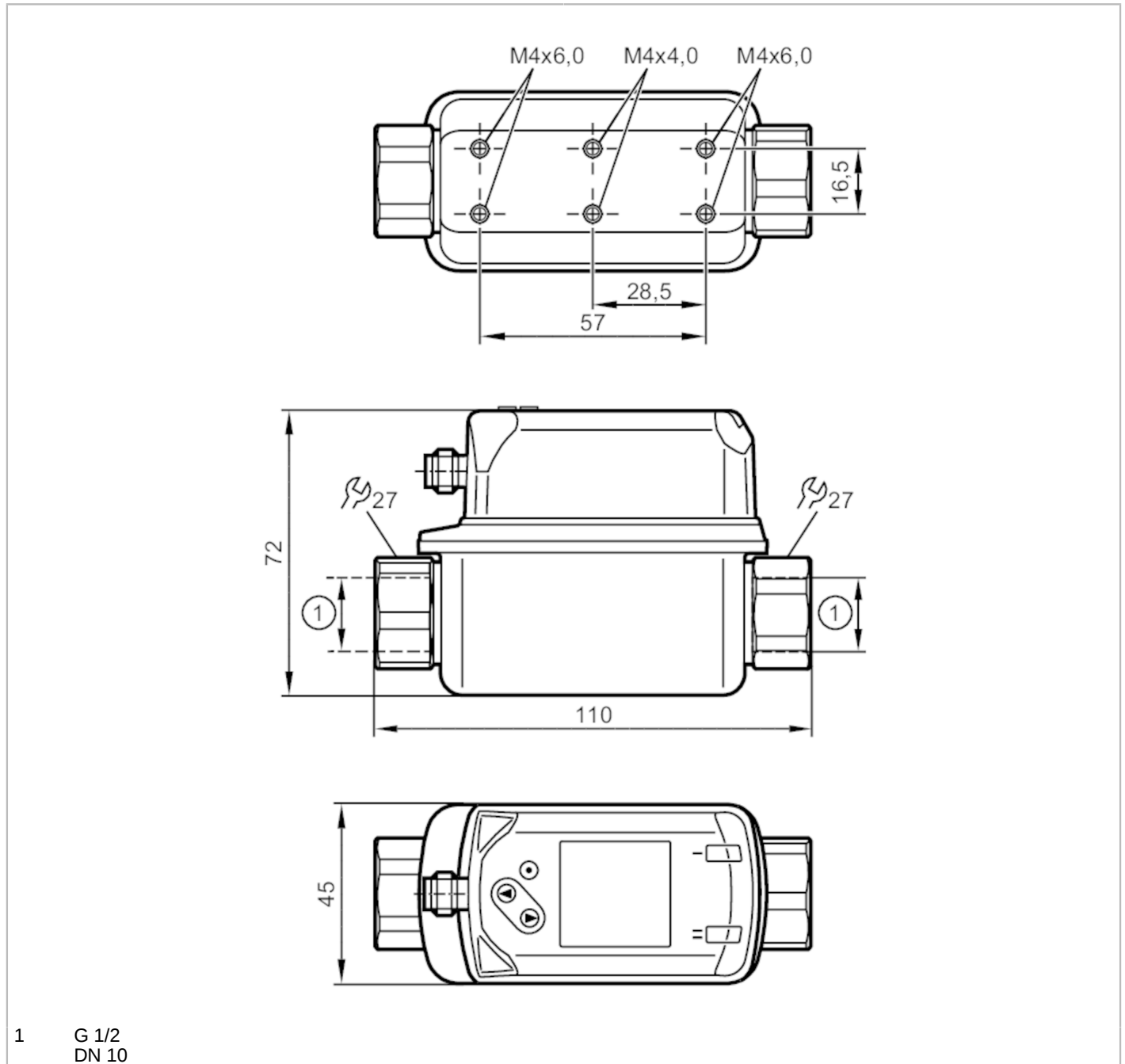


SV5200



SV vortex flowmeters with display for water based media

SVR12XXXIRKG/US-100



1 G 1/2
DN 10



Product characteristics	
Number of inputs and outputs	Number of digital outputs: 2
Measuring range	2...40 l/min 0.12...2.4 m³/h
Process connection	threaded connection G 1/2 Internal thread DN10
Application	
System	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	
MAWP (for applications according to CRN) [bar]	4.8	
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 / closed; (configurable)	
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	2...40 l/min	0.12...2.4 m³/h
Display range	0...48 l/min	0...2.88 m³/h
Resolution	0.2 l/min	0.01 m³/h
Set point SP	2.4...40 l/min	0.14...2.4 m³/h
Reset point rP	2...39.6 l/min	0.12...2.38 m³/h
Frequency end point, FEP	8...40 l/min	0.48...2.4 m³/h
In steps of	0.2 l/min	0.01 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
Reaction 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 / 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 class		A
Process data analog		2
Process data binary		2
Min. process cycle time	[ms]	3
Supported DeviceIDs	Type of operation	DeviceID
	default	488
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	

SV5200



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CPA approval	model number	001VO
	accuracy class	-
	maximum allowable error	± 2 % FS
	Q (min)	0,15 m³/h
	Q (t)	0,48 m³/h
	Q (max)	2,4 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 number	I001
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data

Weight	[g]	440
Housing		rectangular
Dimensions	[mm]	110 x 45 x 72
Material		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 G 1/2 Internal thread DN10

Displays / operating elements

Display		Color 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

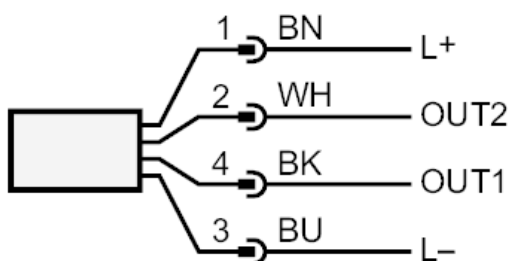




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Connection



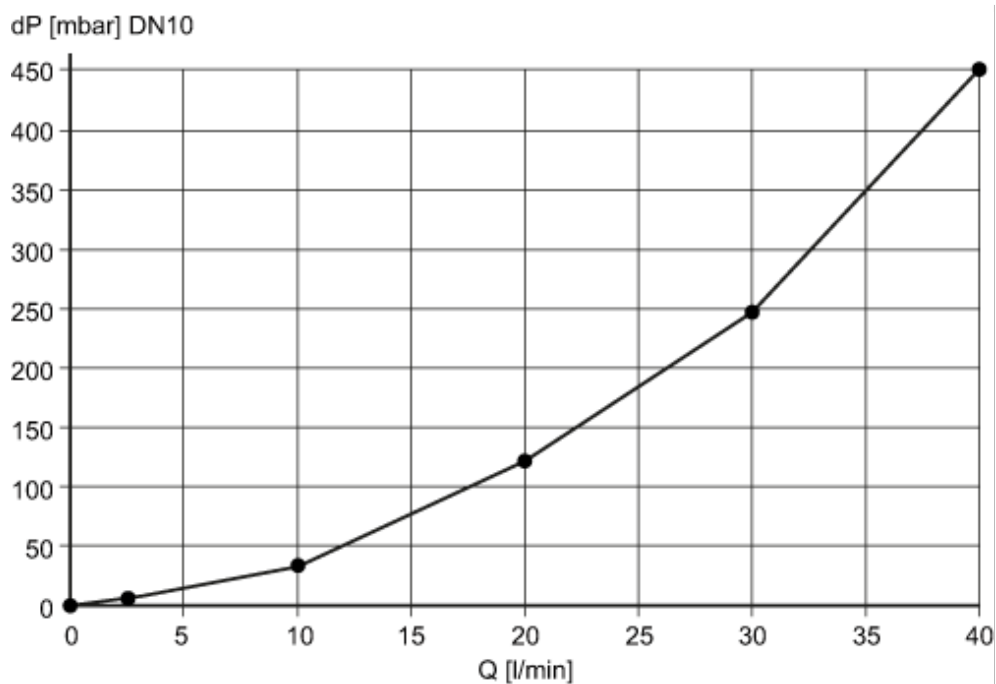
- OUT1: Flow monitoring
 - Switching output
 - Frequency output
 - IO-Link
- OUT2: flow monitoring and temperature monitoring
 - Switching output
 - Frequency output
 Colors to DIN EN 60947-5-2

Core colors :

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

Diagrams and graphs

Pressure loss



dP Pressure loss

Q volumetric flow quantity

SV5200



SV vortex flowmeters with display for water based media

SVR12XXXIRKKG/US-100

pressure rating (bar)

