

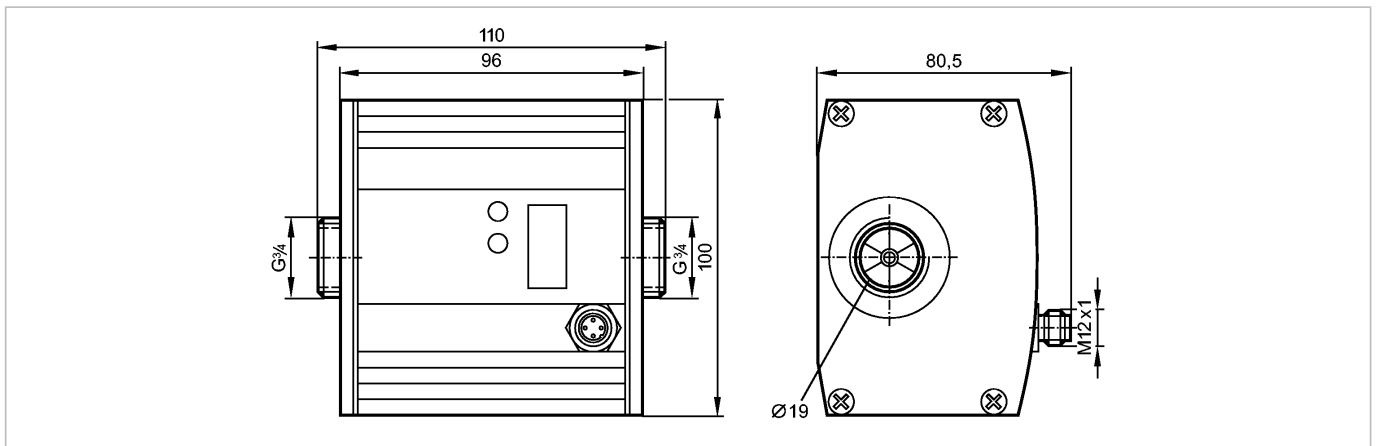


SU7200

SUR34HGBFPKG/W/US-100-IPF



Flow sensors



Product characteristics

Ultrasonic flow meter

Quick disconnect

Process connection: G $\frac{3}{4}$ flat seal

Function programmable

2 switching outputs

OUT1 = flow monitoring

OUT2 = flow monitoring or temperature monitoring

Measuring range

0...50 l/min

-10...80 °C

Maximum permissible flow rate

60 l/min (3.6 m 3 /h)

connection to pipe by means of an adapter

Application

Application	Liquids of the fluid group 2 according to the Pressure Equipment Directive (PED): water, glycol solutions, oils (low-viscosity oils with viscosity 7...40 mm 2 /s at 40°C; high-viscosity oils with viscosity 30...68 mm 2 /s at 40°C)
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Pressure rating	[bar]	16
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Medium temperature	[°C]	-10...80
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Electrical data

Electrical design	DC PNP
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Operating voltage	[V]	19...30 DC ¹⁾
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Current consumption	[mA]	100
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Insulation resistance	[M Ω]	> 100 (500 V DC)
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Protection class	III
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Reverse polarity protection	yes
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Outputs

Output function	2 x normally open / closed programmable
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Current rating	[mA]	2 x 250
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Voltage drop	[V]	< 2
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Short-circuit protection	yes (non-latching)
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Overload protection	yes
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Measuring / setting range



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Flow monitoring

Measuring range	0.0...50.0 l/min	0.00 ... 13.20 gpm
Display range	0.0...60.0 l/min	0.00 ... 15.90 gpm
Resolution	0.1 l/min	0.02 gpm
Set point, SP	0.1...50.0 l/min	0.04 ... 13.22 gpm
Reset point, rP	0.0...49.9 l/min	0.00 ... 13.18 gpm
in steps of	0.1 l/min	0.02 gpm

Temperature monitoring

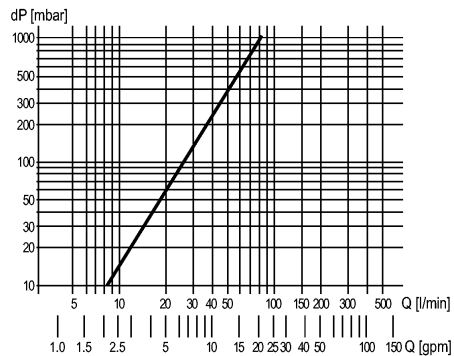
Measuring range	[°C]	-10.0...80.0
Resolution	[°C]	0.2
Set point, SP	[°C]	-9.8...80.0
Reset point, rP	[°C]	-10.0...79.8
in steps of	[°C]	0.2

Accuracy / deviations

Flow monitoring

Accuracy	$< \pm (3\% \text{ MW} + 0.2\% \text{ MEW})^* / < \pm (5\% \text{ MW} + 0.5\% \text{ MEW})^{**}$	
Repeatability	0.1 l/min (0.025 gpm)	

Pressure loss (dP) / flow rate (Q)



Temperature monitoring

Accuracy	[K]	0.2
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Reaction times

Power-on delay time	[s]	10
Flow monitoring		
Start-up delay	[s]	0...50
Response time	[s]	< 0.250 (dAP = 0)
Damping, dAP	[s]	0.0...1.0
Temperature monitoring		
Response time	[s]	$T_{09} = 70$ (Q > 5 l/min) *

Environment

Ambient temperature	[°C]	-10...60
Storage temperature	[°C]	-25...80
Protection		IP 67

Tests / approvals

Pressure equipment directive	article 3, section 3 - sound engineering practice	
EMC	EN 61000-4-2 ESD:	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated:	10 V/m
	EN 61000-4-4 Burst:	2 kV
	EN 61000-4-5 Surge:	0.5 kV



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Flow sensors

	EN 61000-4-6 HF conducted:	10 V
Shock resistance	DIN IEC 68-2-27:	20 g (11 ms)
Vibration resistance	DIN IEC 68-2-6:	5 g (10...2000 Hz)
MTTF [Years]		246

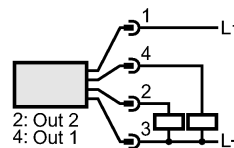
Mechanical data		
Process connection	G $\frac{3}{4}$ flat seal	
Materials (wetted parts)	stainless steel 316L / 1.4404; Viton; PES; Centellen 200	
Housing materials	housing: AlMgSi0.5 anodized; sealing: Viton; connector housing: brass Optalloy-plated; PA 6.6; cover film: polyamide	
Weight [kg]	1.543	

Displays / operating elements		
Display	Display unit	4 x LED green (l/min, m ³ /h, gal/min, gal/h)
	Display unit	2 x LED yellow (°C / °F)
	Switching status	2 x LED yellow
	Measured values	4-digit alphanumeric display
	Programming	4-digit alphanumeric display

Electrical connection	
Connection	M12 connector; gold-plated contacts

Wiring

Programming of the output function:
Hno = hysteresis / normally open
Hnc = hysteresis / normally closed
Fno = window function / normally open
Fnc = window function / normally closed



Accessories

Accessories (included)	2 x packing washer (Centellen)
Accessories (optional)	adapter; order no. E40178 (for R $\frac{1}{2}$ pipe, high-grade stainless steel); order no. E40191 (for $\frac{1}{2}$ " NPT pipe, high-grade stainless steel); order no. E40151 (for R $\frac{1}{2}$ pipe, brass); order no. E40154 (for $\frac{1}{2}$ " NPT pipe, brass)

Remarks

Remarks	1) to EN50178, SELV, PELV *) for water **) for glycol solutions (35%) and oils (viscosity: 68 mm ² /s at 40°C) MW = measured value MEW = final value of the measuring range sealing: only with supplied Centellen seals
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Pack quantity [piece]	1
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