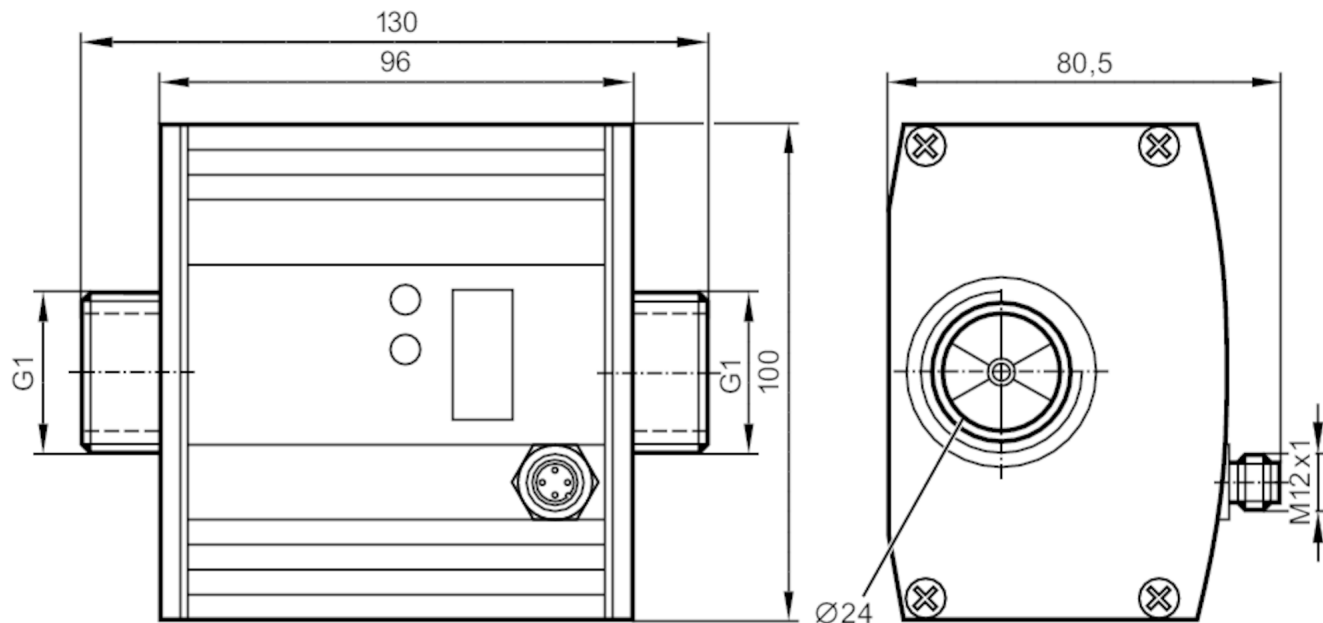


SU8200



Ultrasonic flow meter

SUR11HGBFPKG/W/US-100-IPF



installation length with pipe adapter E40152 / E40155: 205 mm
installation length with pipe adapter E40153 / E40156: 215 mm



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2	
Measuring range	0...100 l/min	0...26.42 gpm
Process connection	threaded connection G 1 external thread flat seal	

Application

System	gold-plated contacts	
Application	for industrial applications	
Installation	connection to pipe by means of an adapter	
Media	water; glycol solutions; Coolants; oils	
Note on media	low-viscosity oils with viscosity: 7...40 mm ² /s (40 °C) high-viscosity oils with viscosity: 30...68 mm ² /s (40 °C)	
Medium temperature [°C]	-10...80	
Pressure rating	16 bar	1.6 MPa

Electrical data

Operating voltage [V]	19...30 DC; (to SELV/PELV)	
Current consumption [mA]	100	
Min. insulation resistance [MΩ]	100; (500 V DC)	
Protection class	III	
Reverse polarity protection	yes	
Power-on delay time [s]	10	
Measuring principle	ultrasonic	

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2
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SU8200



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Outputs		
Total number of outputs	2	
Output signal	switching signal	
Electrical design	PNP	
Number of digital outputs	2	
Output function	normally open / closed; (configurable)	
Max. voltage drop switching output DC [V]	2	
Permanent current rating of switching output DC [mA]	250; (per output)	
Short-circuit protection	yes	
Type of short-circuit protection	yes (non-latching)	
Overload protection	yes	
Measuring/setting range		
Measuring range	0...100 l/min	0...26.42 gpm
Display range	0...120 l/min	0...31.7 gpm
Resolution	0.1 l/min	0.02 gpm
Set point SP	0.2...100 l/min	0.06...26.42 gpm
Reset point rP	0...99.8 l/min	0...26.38 gpm
Max. flow rate [l/min]	110	
In steps of	0.1 l/min	0.02 gpm
Temperature monitoring		
Measuring range [°C]	-10...80	
Resolution [°C]	0.2	
Set point SP [°C]	-9.8...80	
Reset point rP [°C]	-10...79.8	
In steps of [°C]	0.2	
Accuracy / deviations		
Flow monitoring		
Accuracy (in the measuring range)	water: < ± (3 % MW + 0,2 % MEW); glycol (35 %), oil (viscosity 68 mm²/s at 40 °C): < ± (5 % MW + 0,5 % MEW)	
Repeatability	0,2 l/min (0,05 gpm)	
Temperature monitoring		
Accuracy [K]	0,2	
Reaction times		
Flow monitoring		
Response time [s]	0.25; (dAP = 0)	
Delay time programmable dS, dr [s]	0...50	
Damping process value dAP [s]	0...1	
Temperature monitoring		
Dynamic response T05 / T09 [s]	T09 = 70 (Q > 5 l/min); (water)	
Software / programming		
Parameter setting options	Flow monitoring; Temperature monitoring	

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Operating conditions		
Ambient temperature	[°C]	-10...60
Storage temperature	[°C]	-25...80
Protection		IP 67
Tests / approvals		
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
	EN 61000-4-6 HF conducted	10 V
CPA approval	model number	001US
	accuracy class	3
	maximum allowable error	-
	Q (min)	0,3 m³/h
	Q (t)	0,54 m³/h
	Q (max)	6 m³/h
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
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data		
Weight	[g]	1694
Housing		rectangular
Dimensions	[mm]	130 x 100 x 80.5
Material	housing: AlMgSi0.5 anodized; sealing: FKM; PA 6.6; cover film: PA	
Materials (wetted parts)	stainless steel (1.4404 / 316L); FKM; PES; Centellen 200	
Process connection	threaded connection G 1 external thread flat seal	
Displays / operating elements		
Display	Display unit	4 x LED, green (l/min, m³/h, gal/min, gal/h)
	Display unit	2 x LED, yellow (°C / °F)
	Switching status	2 x LED, yellow
	Measured values	alphanumeric display, 4-digit
	Programming	alphanumeric display, 4-digit
Display unit	l/min; m³/h; gpm; gph; °C; °F	
Accessories		
Items supplied	sealings: 2, Centellen	
Accessories (optional)	adapter for pipe: 1 x R 1/2, stainless steel, E40179	
	adapter for pipe: 1 x R 3/4, stainless steel, E40180	
	adapter for pipe: 1 x 1/2" NPT, stainless steel, E40192	
	adapter for pipe: 1 x 3/4" NPT, stainless steel, E40193	
	adapter for pipe: 1 x R 1/2, brass, E40152	
	adapter for pipe: 1 x R 3/4, brass, E40153	
	adapter for pipe: 1 x 1/2" NPT, brass, E40155	
	adapter for pipe: 1 x 3/4" NPT, brass, E40156	

SU8200



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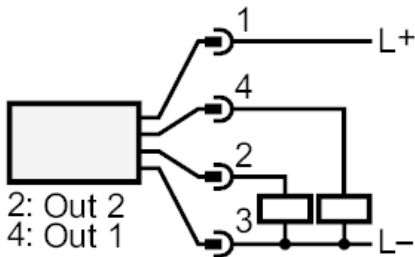
Remarks	
Remarks	MW = Measured value
	MEW = Final value of the measuring range
	sealing: only with supplied Centellen seals
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Moulded body: brass, Optalloy-plated; Contacts: gold-plated



Connection



SU8200

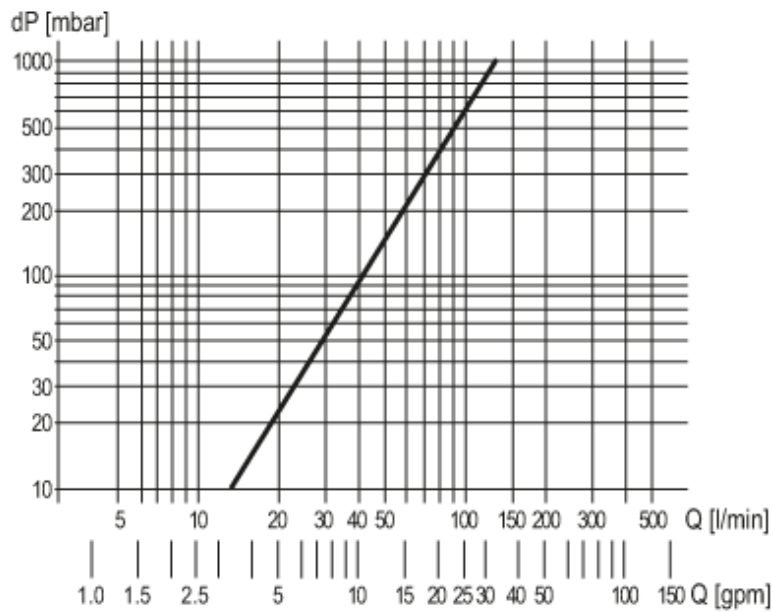
Ultrasonic flow meter

SUR11HGBFPKG/W/US-100-IPF



Diagrams and graphs

Pressure loss



dP Pressure loss
Q volumetric flow quantity