SU8200

Ultrasonic flow meter

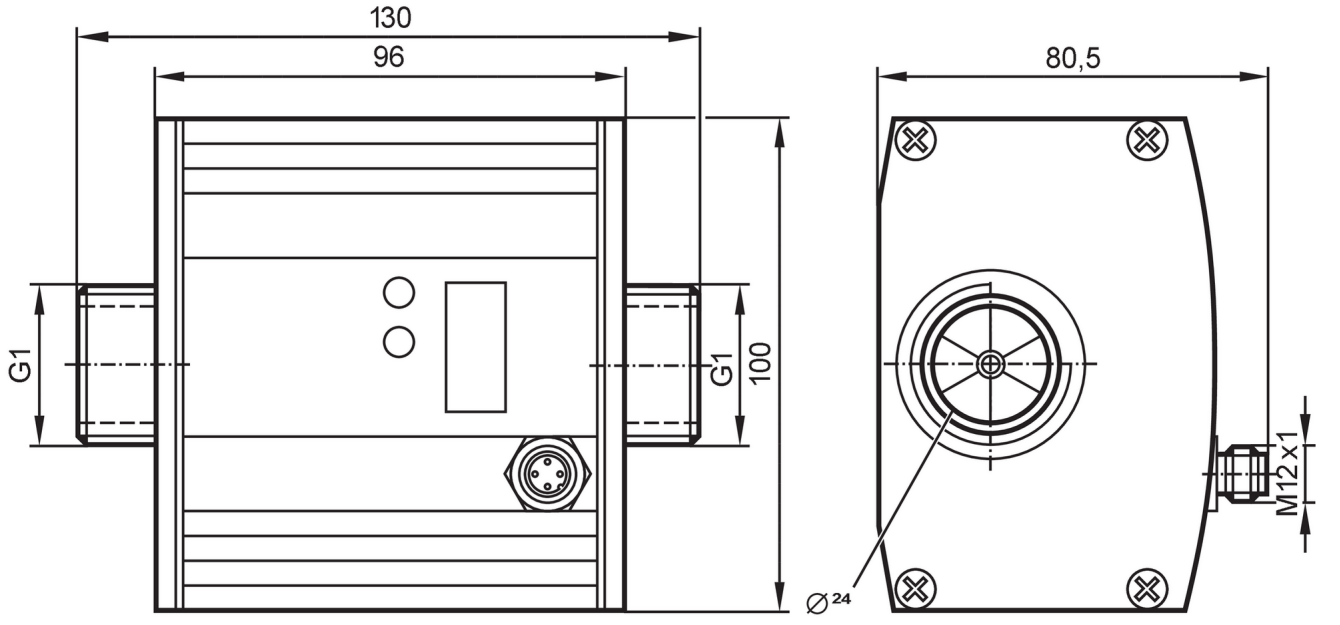
SUR11HGBFPKG/W/US-100-IPF

phase-out article

Discontinuation date: 12/31/2025

Alternative articles: SU8030

When selecting an alternative article and accessories please note that technical data may differ!



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			
Special feature		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 mm²/s (40 °C) high-viscosity oils with viscosity: 30...68 mm²/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	

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Measuring principle		ultrasonic	
Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 2	
Outputs			
Total number of outputs		2	
Output signal		switching signal	
Electrical design		PNP	
Number of digital outputs		2	
Output function		normally open / normally closed; (parameterisable)	
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		pulsed	
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	
Response 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	

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Temperature monitoring			
Dynamic response T05 / T09	[s]	T09 = 70 (Q > 5 l/min); (water)	
Software / programming			
Parameter setting options		Flow monitoring; Temperature monitoring	
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	
Materials		housing: aluminium alloy anodised AlMgSi0,5; Sealing: FKM; PA 6.6; cover film: PA	
Materials (wetted parts)		Pipe section: stainless steel (316L/1.4404); Process connection sealing: NBR reinforced fibre Flat seal; FKM; PES	
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	

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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

Remarks

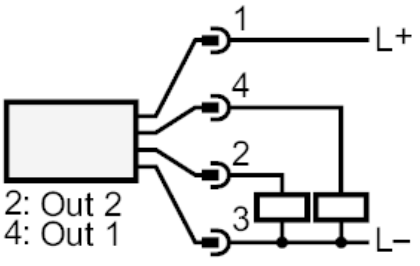
Remarks	MW = measured value
	MEW = Final value of the measuring range
	sealing: only with supplied Centellen seals
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated; Moulded body: brass, Optalloy-plated



Connection



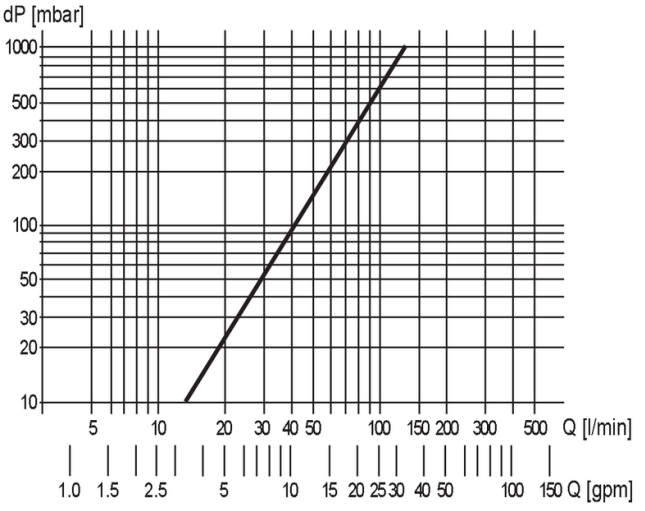
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Diagrams and graphs

Pressure loss



dP Pressure loss

Q volumetric flow quantity