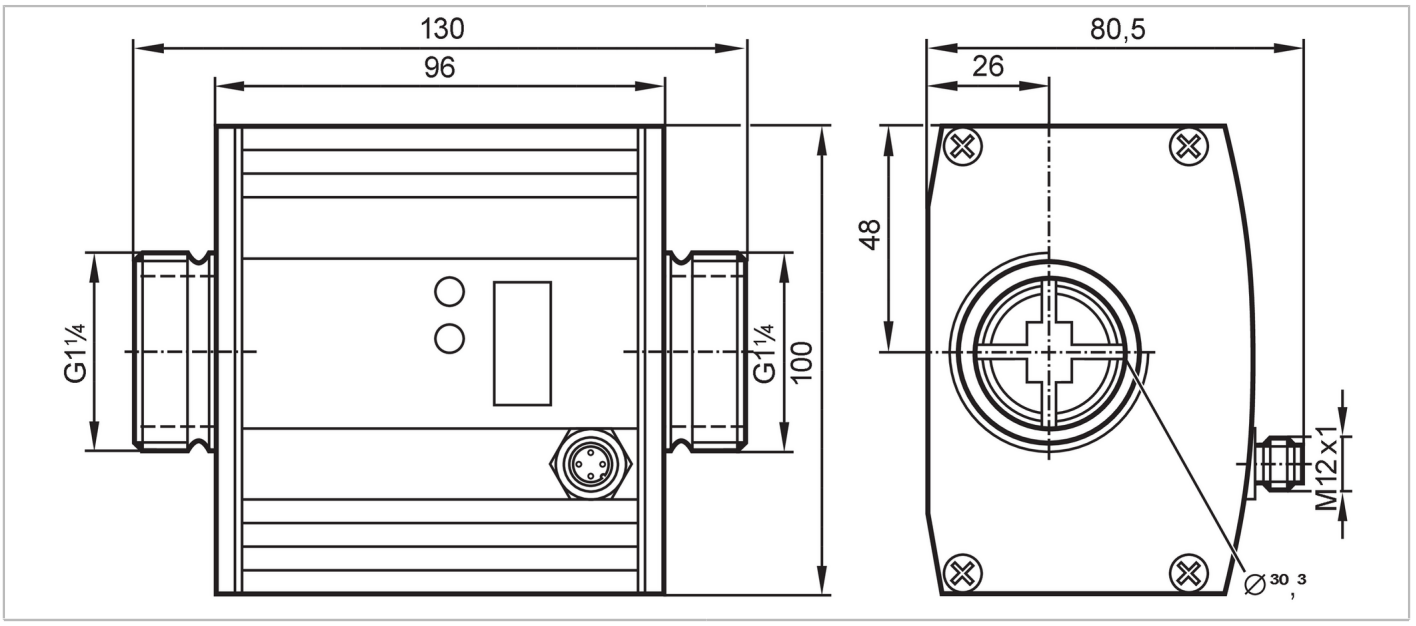
SU9004

Ultrasonic flow meter

SUR54HGB50KG/W/US-100-IPF

phase-out article
Discontinuation date: 12/31/2025

Alternative articles: SU9030 + EIO104
When selecting an alternative article and accessories please note that technical data may differ!



Product characteristics			
Number of inputs and outputs		Number of analogue outputs: 2	
Measuring range		0...200 l/min	0...52.84 gpm
Process connection		threaded connection G 1 1/4 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	
Measuring principle		ultrasonic	

SU9004

Ultrasonic flow meter

SUR54HGB50KG/W/US-100-IPF

Inputs / outputs			
Number of inputs and outputs		Number of analogue outputs: 2	
Outputs			
Total number of outputs		2	
Output signal		analogue signal	
Number of analogue outputs		2	
Analogue current output	[mA]	4...20; (scalable)	
Max. load	[Ω]	500	
Short-circuit protection		yes	
Type of short-circuit protection		pulsed	
Overload protection		yes	
Measuring/setting range			
Measuring range		0...200 l/min	0...52.84 gpm
Display range		0...240 l/min	0...63.42 gpm
Resolution		0.1 l/min	0.02 gpm
Analogue start point ASP		0...160 l/min	0...42.28 gpm
Analogue end point AEP		40...200 l/min	10.28...52.84 gpm
Max. flow rate	[l/min]	220	
In steps of		0.1 l/min	0.02 gpm
Temperature monitoring			
Measuring range	[°C]	-10...80	
Resolution	[°C]	0.2	
Analogue start point	[°C]	-10...62	
Analogue end point	[°C]	8...80	
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): < ± (8 % MW + 0,5 % MEW)	
Repeatability		1 l/min; 60 l/h; 0,05 gpm; 3 gph	
Temperature monitoring			
Accuracy	[K]	± 3 (Q > 20 l/min)	
Response times			
Flow monitoring			
Response time	[s]	0.25; (dAP = 0)	
Damping process value dAP	[s]	0...1	
Temperature monitoring			
Dynamic response T05 / T09	[s]	T09 = 30 (Q > 20 l/min); (water)	
Operating conditions			
Ambient temperature	[°C]	-10...60	
Storage temperature	[°C]	-25...80	
Protection		IP 67	

SU9004

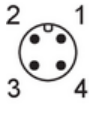
Ultrasonic flow meter

SUR54HGB50KG/W/US-100-IPF

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)	0,84 m³/h
		Q (max)	12 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]	203	
Pressure Equipment Directive		Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	
Mechanical data			
Weight	[g]	1883	
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; PPS	
Process connection		threaded connection G 1 1/4 external thread flat seal	
Displays / operating elements			
Display		Display unit	6 x LED, green (l/min, m³/h, gpm, gph, °C, °F)
		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, stainless steel, E40205	
		adapter for pipe: 1 x 1" NPT, stainless steel, E40206	
Remarks			
Remarks		sealing: only with supplied Centellen seals	
		MW = measured value	
		MEW = Final value of the measuring range	
Pack quantity		1 pcs.	

Electrical connection

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

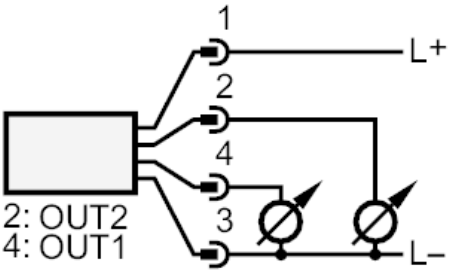


SU9004

Ultrasonic flow meter

SUR54HGB50KG/W/US-100-IPF

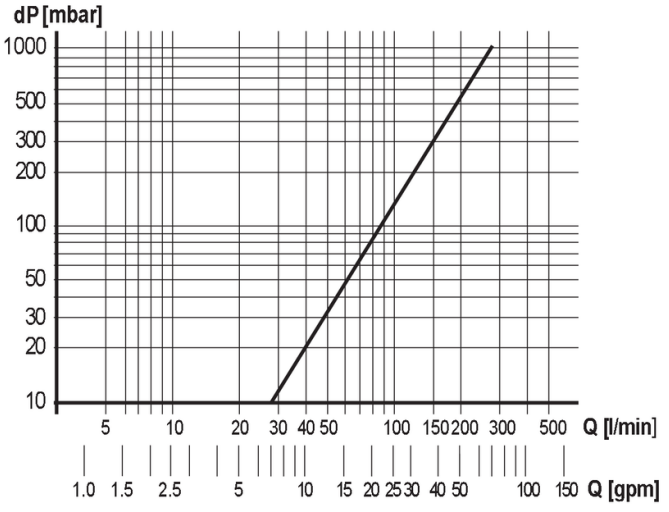
Connection



OUT1: analogue output Temperature monitoring
OUT2: analogue output volumetric flow quantity monitoring

Diagrams and graphs

Pressure loss



dP Pressure loss

Q volumetric flow quantity