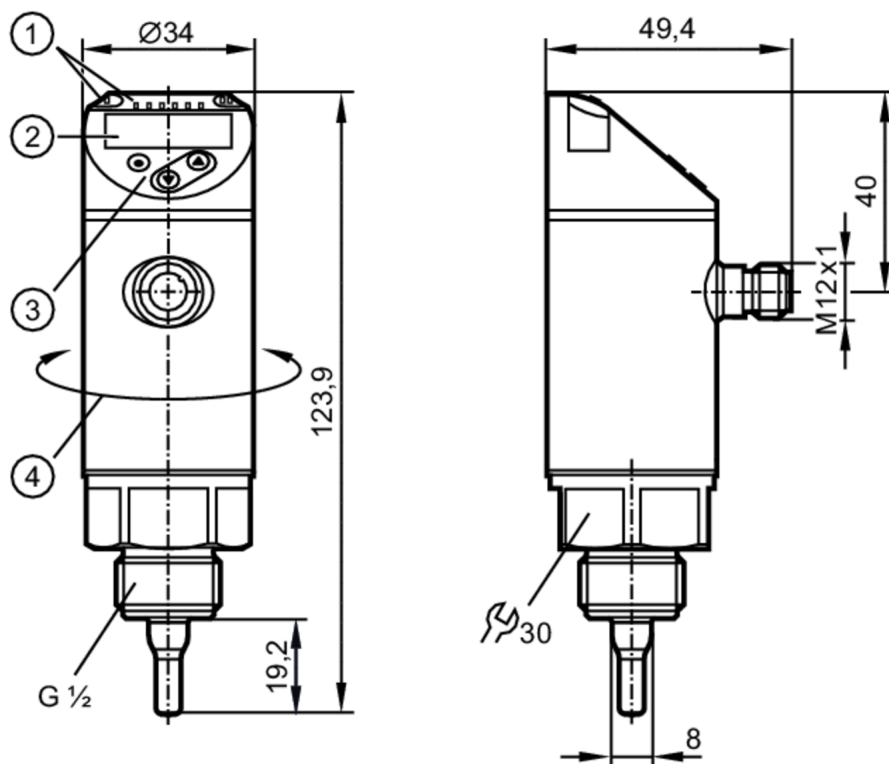


SA2004

Flow monitor

SAR12XDB50KG/US-100



- 1 LEDs Display unit
- I, II not used
- 2 alphanumeric display 4-digit red/green
- 3 programming buttons
- 4 upper part of the housing can be rotated 345°



Application

Media	water; glycol solutions; air; oils
Medien	low-viscosity oils with viscosity: $\leq 40 \text{ mm}^2/\text{s}$ (40 °C) high-viscosity oils with viscosity: $> 40 \text{ mm}^2/\text{s}$ (40 °C)
Medium temperature [°C]	-20...90
Pressure rating [bar]	100

Electrical data

Operating voltage [V]	18...30 DC
Current consumption [mA]	< 100
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	10

Inputs / outputs

Number of inputs and outputs	Number of analogue outputs: 2
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Flow monitor

SAR12XDB50KG/US-100

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]	350
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Measuring/setting range		
Probe length L	[mm]	19.2
Operating mode		relative; absolutely liquid; absolutely gaseous
Note on setting range		Operating mode: relative
Liquids		
Measuring range	[m/s]	0.04...3
Setting range	[m/s]	0...6
Gases		
Measuring range	[m/s]	2...100
Setting range	[m/s]	0...200
Temperature monitoring		
Measuring range	[°C]	-20...90
Resolution	[°C]	0.2
Analogue start point	[°C]	-20...76
Analogue end point	[°C]	4...100
In steps of	[°C]	0.2
Accuracy / deviations		
Flow monitoring		
Temperature drift	[cm/s x 1/K]	0,003 m/s x 1/K (< 20 °C; > 70 °C)
Temperature gradient	[K/min]	100
Accuracy (in the measuring range)		± (7 % MW + 2 % MEW); (for relative mode in the measuring range with:; water: 20...70 °C; inlet length: 1,5 m; DN25 (DIN 2448); mounting position according to instructions; Accuracy can differ for other media and mounting positions.)
Repeatability		0,05 m/s; (water; flow velocity: 0,05...3 m/s)
Temperature monitoring		
Temperature drift		± 0,005 K/°C
Accuracy	[K]	± 0,3 / ± 1; (water; flow velocity: 0,3...3 m/s / air; flow velocity: > 10 m/s)
Response times		
Flow monitoring		
Response time	[s]	0.5; (T09; water; glycol: 0,8 s; air: 7 s; oil: 1,8 s; each T09)
Temperature monitoring		
Dynamic response T05 / T09	[s]	1,5 (T09); (water; flow velocity: 0,3...3 m/s)



Flow monitor

SAR12XDB50KG/US-100

Software / programming		
Parameter setting options	medium selection; Damping; Teach function; display can be rotated and switched off; standard unit of measurement; process value colour	
Operating conditions		
Ambient temperature	[°C]	-40...80
Storage temperature	[°C]	-40...100
Protection	IP 65; IP 67	
Tests / approvals		
EMC	DIN EN 60947-5-9	
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)
MTTF	[years]	180
UL approval	UL Approval no.	I004
Mechanical data		
Weight	[g]	289.5
Materials	stainless steel (1.4404 / 316L); stainless steel (1.4310 / 301); PBT-GF20; PBT-GF30	
Materials (wetted parts)	stainless steel (1.4404 / 316L); Gasket: FKM	
Process connection	threaded connection G 1/2	
Displays / operating elements		
Display	Display unit	6 x LED, green (% , m/s, l/min, m³/h, °C, 10³)
	measured values	alphanumeric display, red/green 4-digit
Remarks		
Remarks	MW = measured value	
	MEW = Final value of the measuring range	
Pack quantity	1 pcs.	
Electrical connection		
Connector: 1 x M12; Contacts: gold-plated		
		

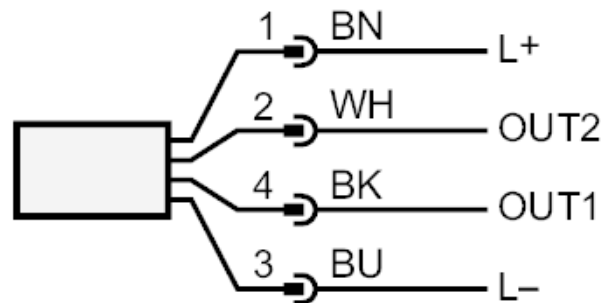
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Flow monitor

SAR12XDB50KG/US-100



Connection



colours to DIN EN 60947-5-2

OUT1: analogue output Temperature monitoring

OUT2: analogue output volumetric flow quantity monitoring

Core colours :

BK = black

BN = brown

BU = blue

WH = white