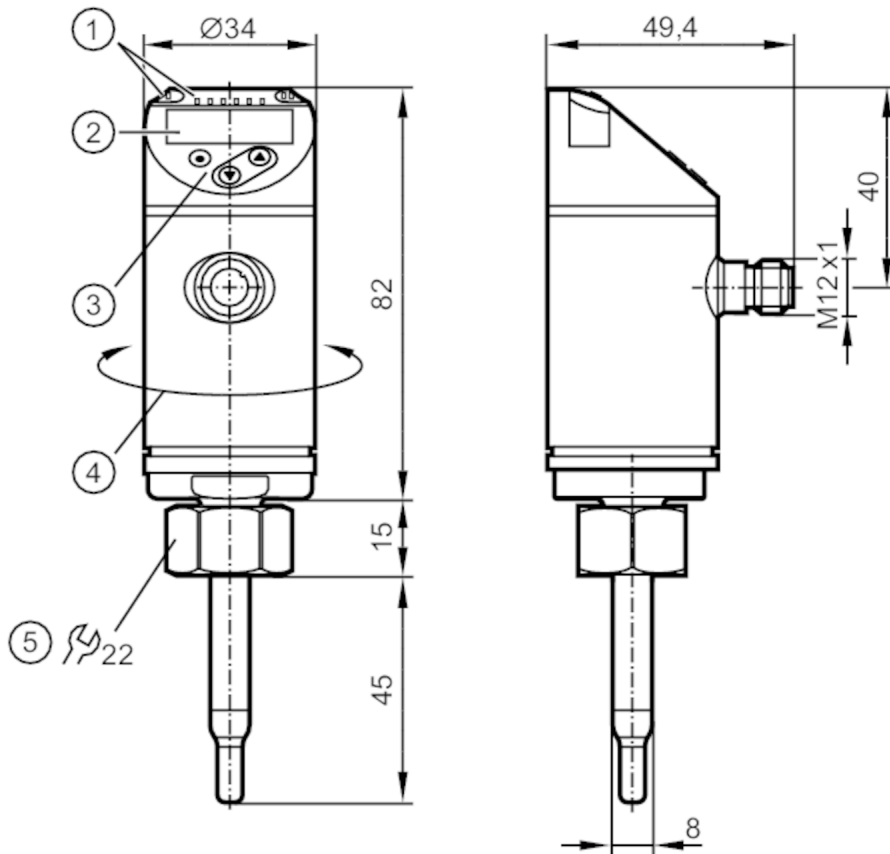


# SA5004



## Flow sensor

SAD10XDB50KG/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°



### Product characteristics

Number of inputs and outputs	Number of analog outputs: 2
Process connection	threaded connection M18 x 1,5 Internal thread

### Application

System	gold-plated contacts
Media	water; glycol solutions; air; oils
Note on media	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
Pressure rating [Mpa]	10
MAWP (for applications according to CRN) [bar]	100

# SA5004



## Flow sensor

SAD10XDB50KG/US-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 analog outputs: 2
Outputs		
Total number of outputs		2
Output signal		analog signal
Number of analog outputs		2
Analog current output	[mA]	4...20; (scalable)
Max. load	[Ω]	350
Short-circuit protection		yes
Type of short-circuit protection		yes (non-latching)
Overload protection		yes
Measuring/setting range		
Probe length L	[mm]	45
Operating mode		relative; absolutely liquid; absolutely gaseous; (absolute: reference measurement recommended)
Note on factory setting		Operating mode: relative
Liquids		
Setting range	[m/s]	0.04...6
Greatest sensitivity	[m/s]	0.04...3
Gases		
Setting range	[m/s]	0...200
Greatest sensitivity	[m/s]	2...100
Temperature monitoring		
Measuring range	[°C]	-20...90
Resolution	[°C]	0.2
Analog start point	[°C]	-20...76
Analog 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)
Max. temperature gradient of medium	[K/min]	100
Accuracy		± (7 % MW + 2 % MEW); (for relative mode in the range of maximum sensitivity under the following conditions:; 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)

# SA5004



## Flow sensor

SAD10XDB50KG/US-100

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)	
Reaction 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)	
Software / programming			
Parameter setting options		medium selection; Damping; Teach function; display can be rotated and switched off; standard unit of measurement; process value color	
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 number	I004
		File number UL	E174189
Mechanical data			
Weight	[g]		281
Material		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 M18 x 1,5 Internal thread	
Displays / operating elements			
Display	Display unit	6 x LED, green (% , m/s, l/min, m <sup>3</sup> /h, °C, 10 <sup>3</sup> )	
	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			

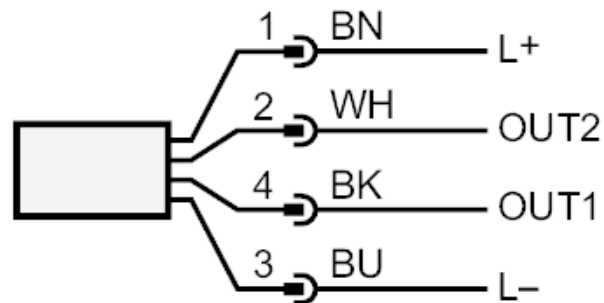
# SA5004



## Flow sensor

SAD10XDB50KG/US-100

### Connection



Colours to DIN EN 60947-5-2

OUT1: analog output Temperature monitoring

OUT2: analog output Volumetric flow quantity monitoring

Core colors :

BK = black

BN = brown

BU = blue

WH = white