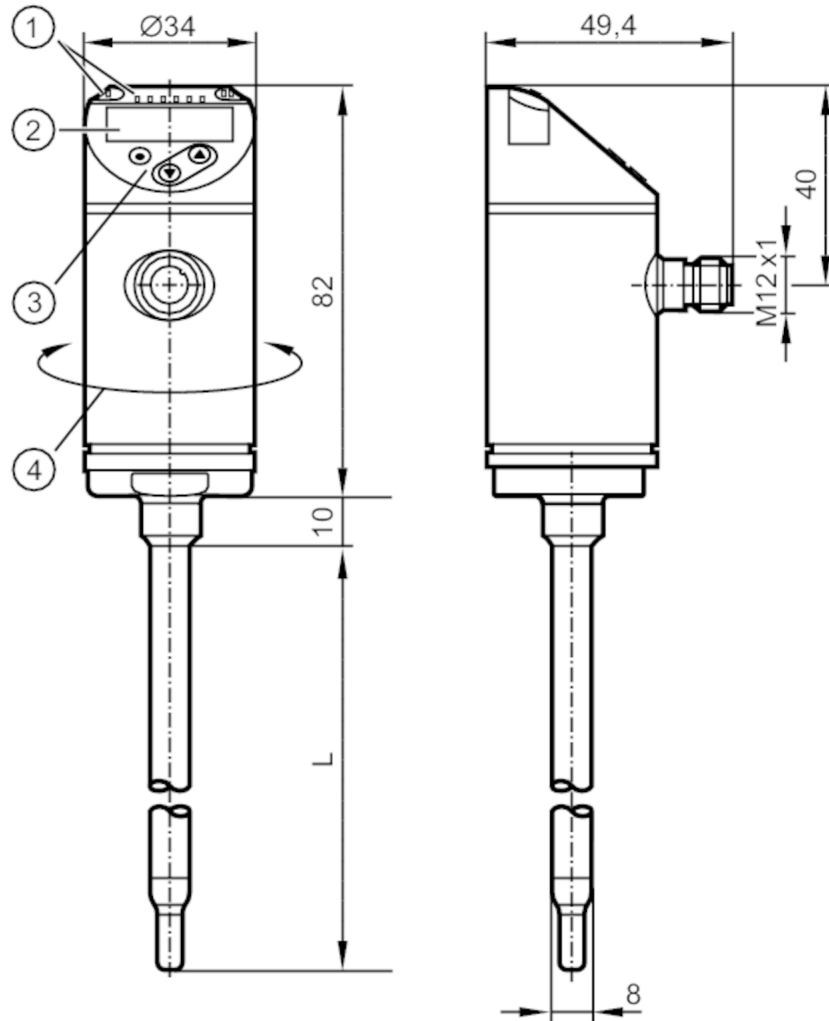


# SA4104



## Flow sensor

SAEXXXB50KG/US-100



- L 100 mm
- 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°

ACS CRN EC 1935/2004 FCM KTW/W270 Reg31

### Product characteristics

Number of inputs and outputs	Number of analog outputs: 2
Process connection	$\varnothing 8$ mm

### Application

System	gold-plated contacts
Media	water; glycol solutions; air; oils
Note on media	low-viscosity oils with viscosity: $\leq 40$ mm <sup>2</sup> /s (40 °C) high-viscosity oils with viscosity: $> 40$ mm <sup>2</sup> /s (40 °C)
Medium temperature [°C]	-20...100
Pressure rating [bar]	50
Pressure rating [MPa]	5
MAWP (for applications according to CRN) [bar]	50

# SA4104



## Flow sensor

SAEXXXB50KG/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 [ $\Omega$ ]	350
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)
Overload protection	yes
Measuring/setting range	
Probe length L [mm]	100
Operating mode	relative; absolutely liquid; absolutely gaseous; (absolute: reference measurement recommended; Factory setting: 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 [ $^{\circ}\text{C}$ ]	-20...100
Resolution [ $^{\circ}\text{C}$ ]	0.2
Analog start point [ $^{\circ}\text{C}$ ]	-20...76
Analog end point [ $^{\circ}\text{C}$ ]	4...100
In steps of [ $^{\circ}\text{C}$ ]	0.2
Accuracy / deviations	
Flow monitoring	
Temperature drift [cm/s x 1/K]	0,003 m/s x 1/K (< 20 $^{\circ}\text{C}$ ; > 70 $^{\circ}\text{C}$ )
Max. temperature gradient of [K/min] medium	100
Accuracy	$\pm$ (7 % MW + 2 % MEW); (for relative mode in the range of maximum sensitivity under the following conditions:; water: 20...70 $^{\circ}\text{C}$ ; 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)

# SA4104



## Flow sensor

SAEXXXB50KG/US-100

<b>Temperature monitoring</b>		
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)
<b>Reaction times</b>		
<b>Flow monitoring</b>		
Response time	[s]	0.5; (T09; water; glycol: 0,8 s; air: 7 s; oil: 1,8 s; each T09)
<b>Temperature monitoring</b>		
Dynamic response T05 / T09	[s]	1,5 (T09); (water; Flow velocity: 0,3...3 m/s)
<b>Software / programming</b>		
Parameter setting options		medium selection; Damping; Teach function; display can be rotated and switched off; standard unit of measurement; process value color
<b>Operating conditions</b>		
Ambient temperature	[°C]	-40...80
Storage temperature	[°C]	-40...100
Protection		IP 65; IP 67
<b>Tests / approvals</b>		
EMC		DIN EN 60947-5-9
Shock resistance		DIN EN 60068-2-27 50 g (11 ms)
Vibration resistance		DIN EN 60068-2-6 5 g (10...2000 Hz)
MTTF	[years]	180
UL approval		UL approval number I018 File number UL E174189
<b>Mechanical data</b>		
Weight	[g]	260.5
Material		stainless steel (1.4404 / 316L); PBT-GF20; PBT-GF30
Materials (wetted parts)		stainless steel (1.4404 / 316L)
Process connection		Ø 8 mm
<b>Displays / operating elements</b>		
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
<b>Remarks</b>		
Remarks		MW = Measured value MEW = Final value of the measuring range
Pack quantity		1 pcs.
<b>Electrical connection</b>		
Connector: 1 x M12; coding: A; Contacts: gold-plated		

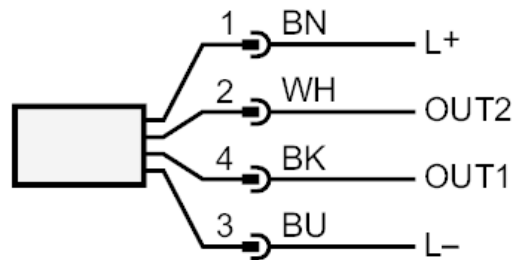
# SA4104



## Flow sensor

SAEXXXB50KG/US-100

### Connection



OUT1: analog output Temperature monitoring  
OUT2: analog output Volumetric flow quantity monitoring

Colors to DIN EN 60947-5-2  
Core colors :

BK = black  
BN = brown  
BU = blue  
WH = white