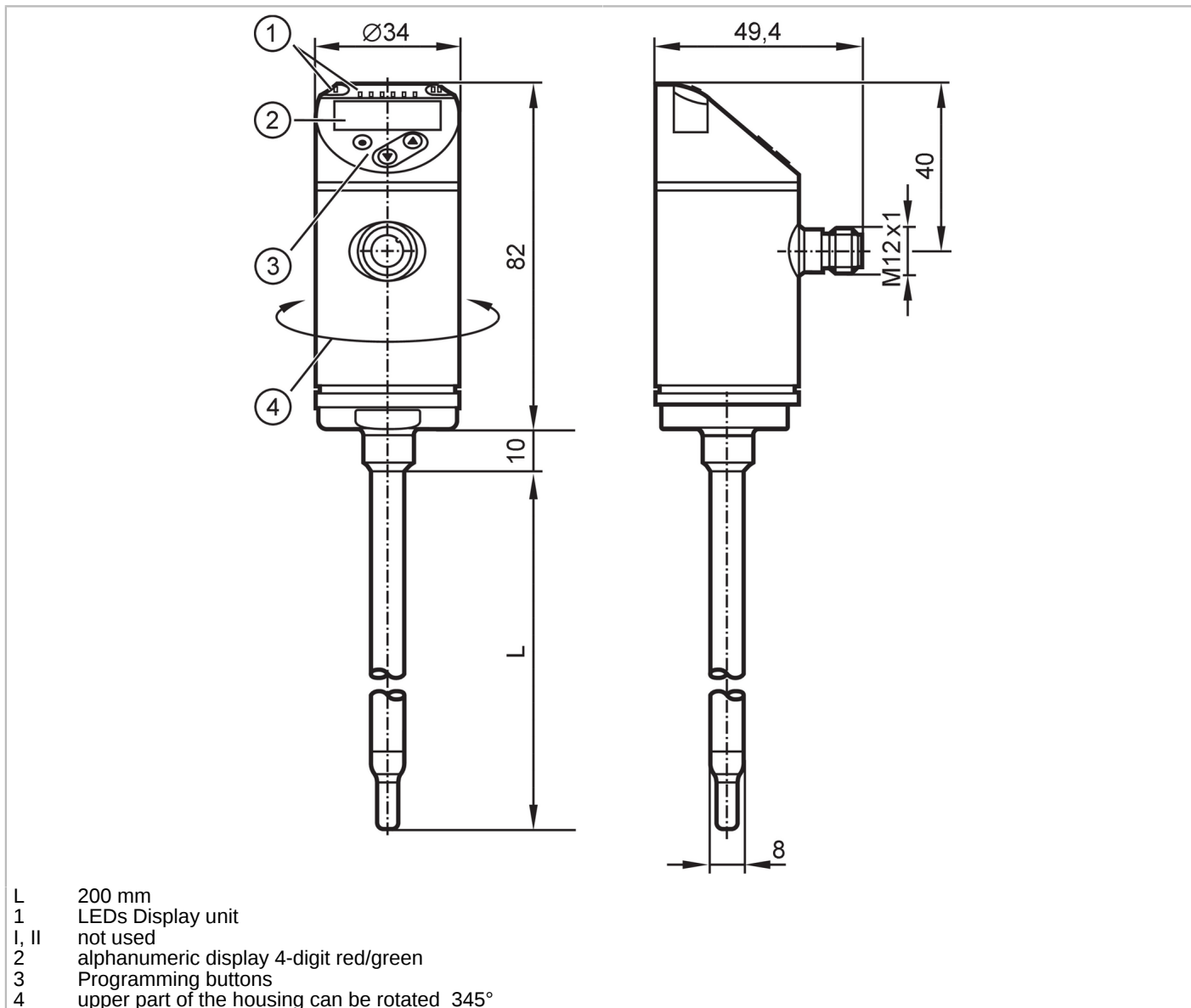


SA4304



Flow sensor

SAEXXXB50KG/US-100



ACS CE CRN  EC 1935/2004 FCM FDA KTW/W270 Reg31 UK CA

Product characteristics	
Number of inputs and outputs	Number of analog outputs: 2
Process connection	Clamp fitting Ø 8 mm
Application	
Special feature	gold-plated contacts
Media	water; glycol solutions; air; oils
Note on media	low-viscosity oils with viscosity: ≤ 40 mm ² /s (40 °C) high-viscosity oils with viscosity: > 40 mm ² /s (40 °C)
Medium temperature [°C]	-20...100
Pressure rating	50 bar 5 MPa
MAWP (for applications according to CRN) [bar]	50

SA4304



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
Measuring principle	calorimetric
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]	200
Operating mode	relative; absolutely liquid; absolutely gaseous; (absolute: reference measurement recommended; Factory setting: relative)
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
Liquid media - absolute operating mode	
Setting range [m/s]	0.04...3
Greatest sensitivity [m/s]	0.04...3
Liquid media - relative operating mode	
Setting range [m/s]	0.04...6
Greatest sensitivity [m/s]	0.04...3
Gases - operating mode "absolute"	
Setting range [m/s]	2...100
Greatest sensitivity [m/s]	30...100
Gases - operating mode "relative"	
Setting range [m/s]	2...200
Greatest sensitivity [m/s]	30...100
Accuracy / deviations	
Temperature drift [cm/s x 1/K]	0,003 m/s x 1/K (< 20 $^{\circ}\text{C}$; > 70 $^{\circ}\text{C}$)

SA4304



Flow sensor

SAEXXXB50KG/US-100

Max. temperature gradient of [K/min] medium	100	
Absolute operating mode		
Repeatability	0,05 m/s; (water; Flow velocity: 0,05...3 m/s)	
Relative operating mode		
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)	
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		
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	2 g (10...2000 Hz)
MTTF [years]	180	
UL approval	UL approval number	I018
	File number UL	E174189
Mechanical data		
Weight [g]	312.5	
Housing	tubular	
Dimensions [mm]	Ø 8 / L = 292	
Material	stainless steel (1.4404 / 316L); PBT-GF20; PBT-GF30	
Materials (wetted parts)	stainless steel (1.4404 / 316L)	
Process connection	Clamp fitting Ø 8 mm	
Displays / operating elements		
Display	Display unit	6 x LED, green (% , m/s, l/min, m ³ /h, °C, 10 ³)
	Measured values	alphanumeric display, red/green 4-digit
Remarks		
Remarks	MW = Measured value MEW = Final value of the measuring range	
Pack quantity	1 pcs.	

SA4304



Flow sensor

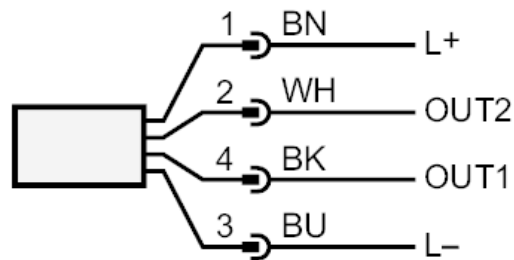
SAEXXXB50KG/US-100

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



Connection



OUT1: analog output Temperature monitoring
OUT2: analog output Volumetric flow quantity monitoring
Core colors :
BK = black
BN = brown
BU = blue
WH = white