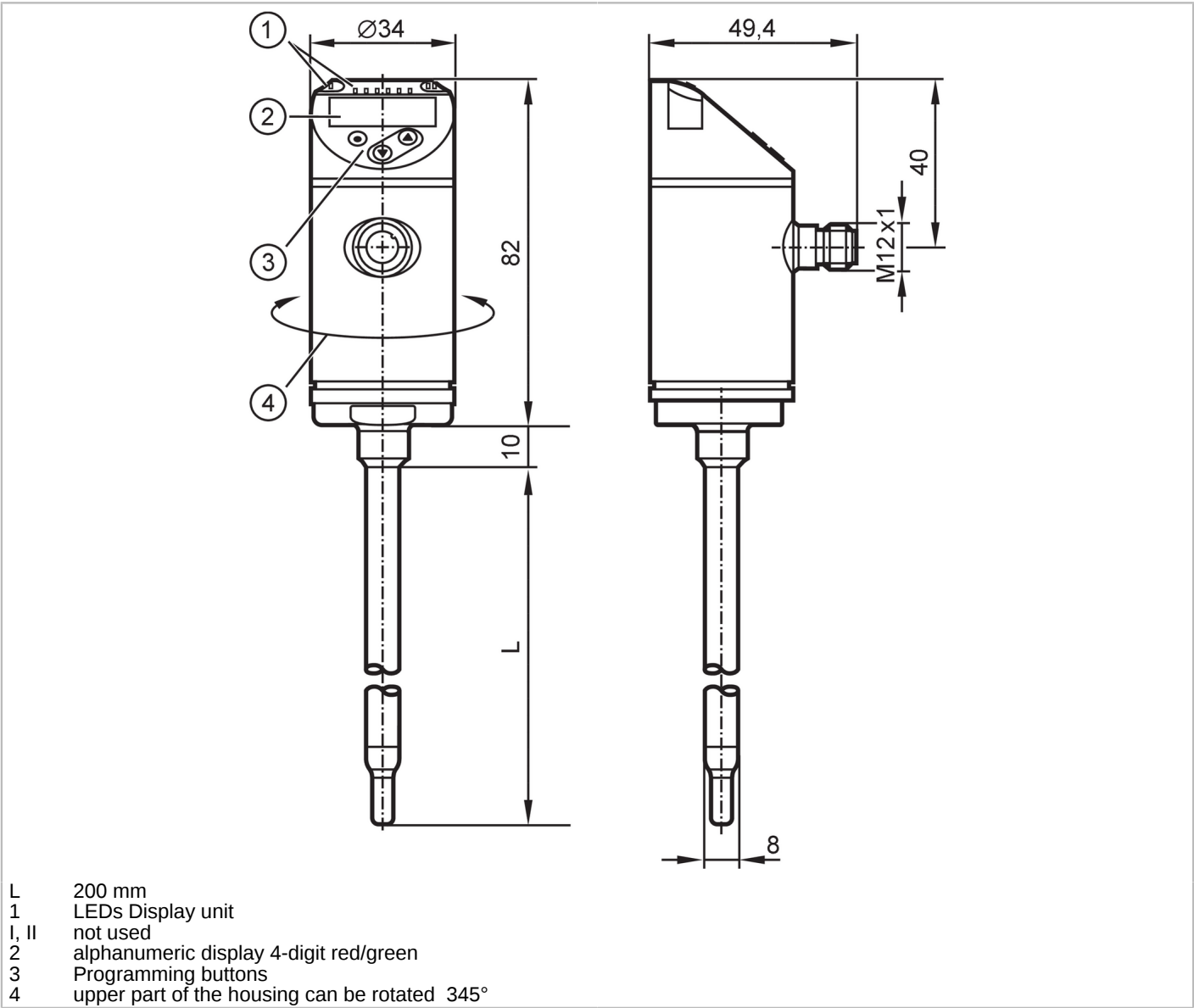


SA4314



Flow sensor

SAEXXXB50KG/US-100



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 mm²/s (104 °F)	
	high-viscosity oils with viscosity: > 40 mm²/s (104 °F)	
Medium temperature	[°F]	-4...212
Pressure rating	50 bar	5 MPa
Electrical data		
Operating voltage	[V]	18...30 DC
Current consumption	[mA]	< 100

SA4314



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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)
Liquids	
Resolution [ft/s]	0.05
Analog start point ASP [ft/s]	0...7.95
Analog end point AEP [ft/s]	1.9...9.85
Gases	
Resolution [ft/s]	2
Analog start point ASP [ft/s]	0...264
Analog end point AEP [ft/s]	64...328
Temperature monitoring	
Measuring range [°F]	-4...212
Resolution [°F]	0.5
Analog start point [°F]	-4...169
Analog end point [°F]	39...212
In steps of [°F]	0.5
Liquid media - absolute operating mode	
Setting range [ft/s]	0.15...9.85
Greatest sensitivity [ft/s]	0.15...9.85
Liquid media - relative operating mode	
Setting range [ft/s]	0.15...19.5
Greatest sensitivity [ft/s]	0.15...9.85
Gases - operating mode "absolute"	
Setting range [ft/s]	6...328
Greatest sensitivity [ft/s]	6...328

SA4314



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Gases - operating mode "relative"		
Setting range	[ft/s]	6...656
Greatest sensitivity	[ft/s]	6...328
Accuracy / deviations		
Temperature drift	[cm/s x 1/K]	0,01 fps x 1/K (< 68 °F; > 158 °F)
Max. temperature gradient of medium	[K/min]	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: 68...158 °F; inlet length: 5 ft; 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		± 0,003 K/°F
Accuracy	[K]	± 0,3 / ± 1; (water; Flow velocity: 1...9,85 fps / air; Flow velocity: > 32,8 fps)
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: 1...9,85 fps)
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	[°F]	-40...176
Storage temperature	[°F]	-40...212
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	5 g (10...2000 Hz)
MTTF	[years]	179
UL approval	UL approval number	I018
	File number UL	E174189
Mechanical data		
Weight	[g]	310.5
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

SA4314



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SAEXXXB50KG/US-100

Displays / operating elements

Display	Display unit	6 x LED, green (% , fps, gpm, cfm, °F, 10 ³)
	Measured values	alphanumeric display, red/green 4-digit

Remarks

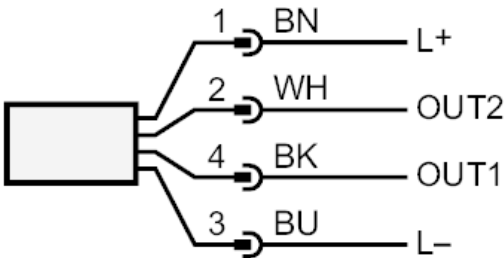
Remarks	MW = Measured value
	MEW = Final value of the measuring range
Pack quantity	1 pcs.

Electrical connection

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



Connection



OUT1: Colors to DIN EN 60947-5-2
analog output Temperature monitoring
OUT2: analog output Volumetric flow quantity monitoring
Core colors :
BK = black
BN = brown
BU = blue
WH = white