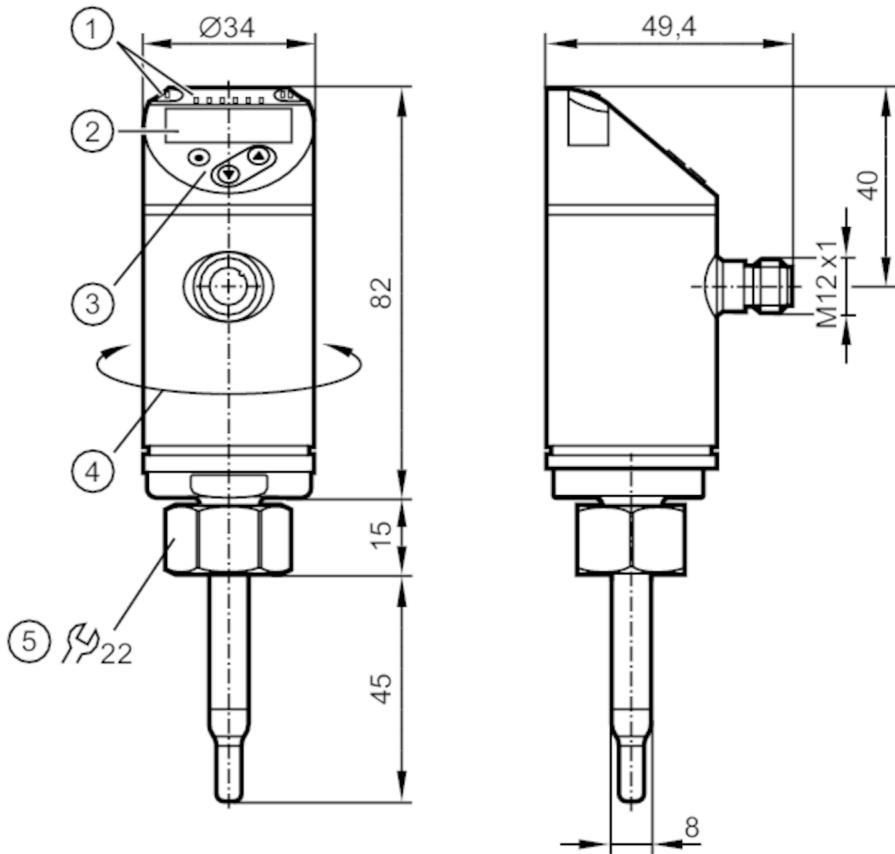


SA5014



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
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Process connection	threaded connection M18 x 1,5 Internal thread
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Application

System	gold-plated contacts
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Media	water; glycol solutions; air; oils
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Note on media	low-viscosity oils with viscosity: ≤ 40 mm²/s (104 °F)
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high-viscosity oils with viscosity: > 40 mm²/s (104 °F)

Medium temperature [°F]	-4...194
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Pressure rating [bar]	100
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Electrical data

Operating voltage [V]	18...30 DC
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Current consumption [mA]	< 100
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Protection class	III
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Reverse polarity protection	yes
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Power-on delay time [s]	10
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SA5014



Flow sensor

SAD10XDB50KG/US-100

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; 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...194
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...9.85
Greatest sensitivity [ft/s]		0.15...9.85
Liquid media - relative operating mode		
Setting range [ft/s]		0...19.5
Greatest sensitivity [ft/s]		0.15...9.85
Gases - operating mode "absolute"		
Setting range [ft/s]		0...328
Greatest sensitivity [ft/s]		6...328
Gases - operating mode "relative"		
Setting range [ft/s]		0...656
Greatest sensitivity [ft/s]		6...328

Flow sensor

SAD10XDB50KG/US-100

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: 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	[°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
Vibration resistance		DIN EN 60068-2-6
MTTF	[years]	179
UL approval		UL approval number: I004 File number UL: E174189
Mechanical data		
Weight	[g]	278
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, 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.

Flow sensor

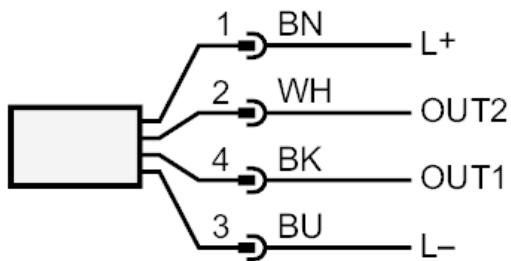
SAD10XDB50KG/US-100

Electrical connection

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



Connection



Colors 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