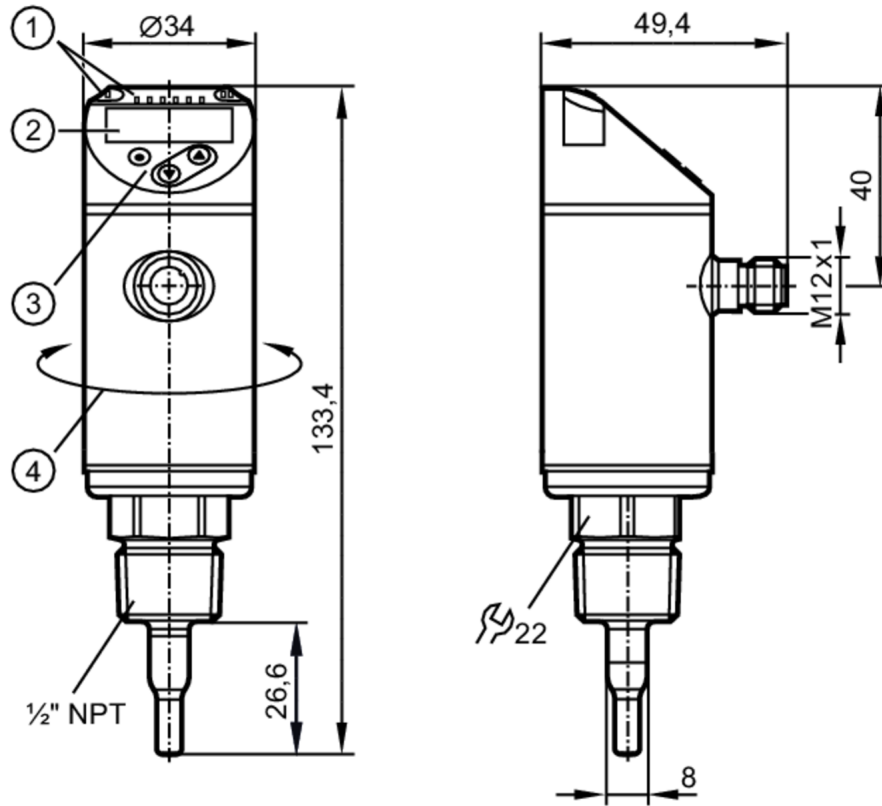


# SA6014



## Flow sensor

SAN12XDB50KG/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 1/2" NPT external thread

### Application

System	gold-plated contacts
Media	water; glycol solutions; air; oils
Note on media	low-viscosity oils with viscosity: $\leq 40 \text{ mm}^2/\text{s}$ (104 °F) high-viscosity oils with viscosity: $> 40 \text{ mm}^2/\text{s}$ (104 °F)
Medium temperature [°F]	-4...194
Pressure rating	100 bar      1450 psi      10 MPa
MAWP (for applications according to CRN) [bar]	100

### Electrical data

Operating voltage [V]	18...30 DC
Current consumption [mA]	< 100
Protection class	III
Reverse polarity protection	yes

# SA6014



## Flow sensor

SAN12XDB50KG/US-100

Power-on delay time	[s]	10
Measuring principle		calorimetric
<b>Inputs / outputs</b>		
Number of inputs and outputs		Number of analog outputs: 2
<b>Outputs</b>		
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
<b>Measuring/setting range</b>		
Probe length L	[mm]	26.6
Operating mode		relative; absolutely liquid; absolutely gaseous; (absolute: reference measurement recommended; Factory setting: relative)
<b>Liquids</b>		
Resolution	[ft/s]	0.05
Analog start point ASP	[ft/s]	0...7.95
Analog end point AEP	[ft/s]	1.9...9.85
<b>Gases</b>		
Resolution	[ft/s]	2
Analog start point ASP	[ft/s]	0...264
Analog end point AEP	[ft/s]	64...328
<b>Temperature monitoring</b>		
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
<b>Liquid media - absolute operating mode</b>		
Setting range	[ft/s]	0...9.85
Greatest sensitivity	[ft/s]	0.15...9.85
<b>Liquid media - relative operating mode</b>		
Setting range	[ft/s]	0...19.5
Greatest sensitivity	[ft/s]	0.15...9.85
<b>Gases - operating mode "absolute"</b>		
Setting range	[ft/s]	6...328
Greatest sensitivity	[ft/s]	6...328
<b>Gases - operating mode "relative"</b>		
Setting range	[ft/s]	6...656

# SA6014



## Flow sensor

SAN12XDB50KG/US-100

Greatest sensitivity	[ft/s]	6...328
<b>Accuracy / deviations</b>		
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
<b>Absolute operating mode</b>		
Repeatability		0,05 m/s; (water; Flow velocity: 0,05...3 m/s)
<b>Relative operating mode</b>		
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)
<b>Temperature monitoring</b>		
Temperature drift		± 0,003 K/°F
Accuracy	[K]	± 0,3 / ± 1; (water; Flow velocity: 1...9,85 fps / air; Flow velocity: > 32,8 fps)
<b>Reaction times</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: 1...9,85 fps)
<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	[°F]	-40...176
Storage temperature	[°F]	-40...212
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 20 g (10...2000 Hz)
MTTF	[years]	180
UL approval		UL approval number I004 File number UL E174189
<b>Mechanical data</b>		
Weight	[g]	268
Housing		tubular
Dimensions	[mm]	Ø 34 / L = 133.4
Material		stainless steel (1.4404 / 316L); stainless steel (1.4310 / 301); PBT-GF20; PBT-GF30
Materials (wetted parts)		stainless steel (1.4404 / 316L)
Process connection		threaded connection 1/2" NPT external thread
Probe diameter	[mm]	5
Installation length EL	[mm]	26.6

# SA6014



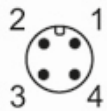
## Flow sensor

SAN12XDB50KG/US-100

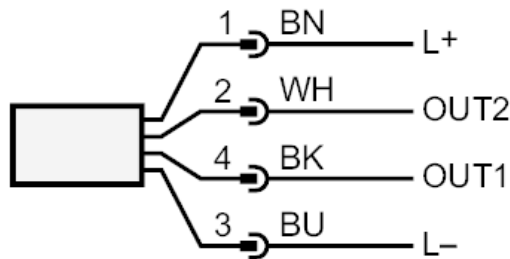
Displays / operating elements		
Display	Display unit	6 x LED, green (% , fps, gpm, cfm, °F, 10 <sup>3</sup> )
	Measured values	alphanumeric display, red/green 4-digit
Remarks		
Remarks	MW = Measured value	
	MEW = Final value of the measuring range	
Pack quantity	1 pcs.	

### Electrical connection

Connector: 1 x M12; coding: A; Contacts: 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