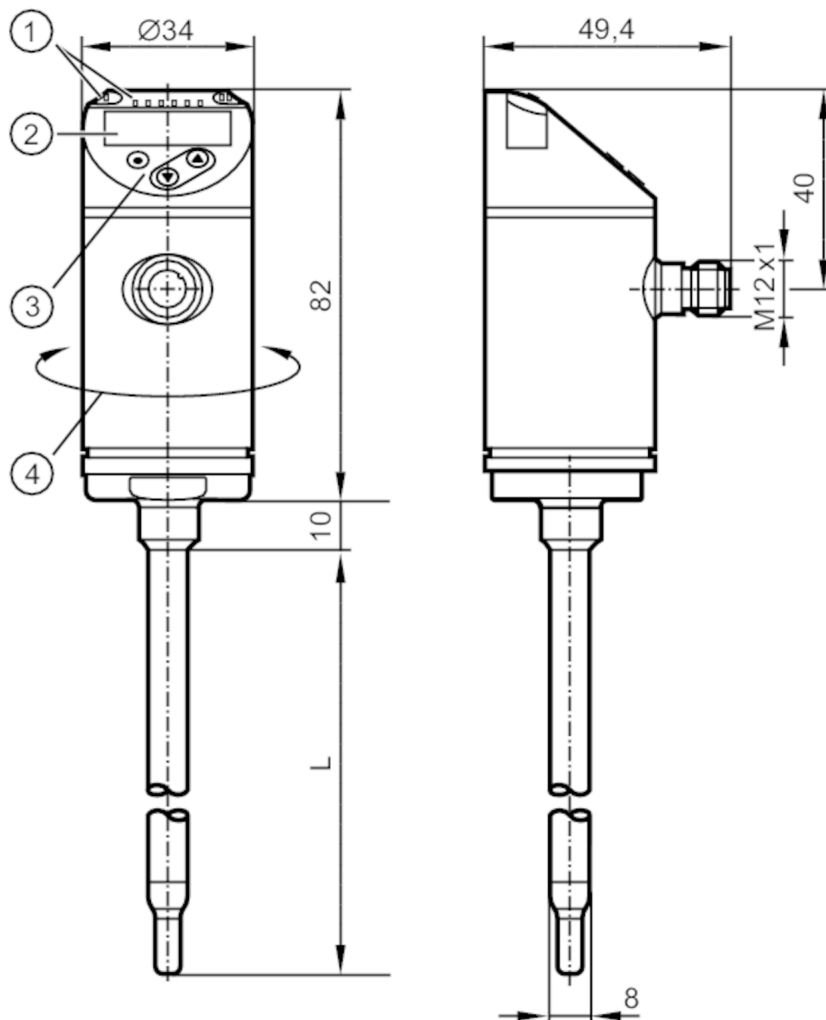


# SA4314



## Flow sensor

SAEXXXB50KG/US-100



- L 200 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°



### Product characteristics

|                              |                               |             |
|------------------------------|-------------------------------|-------------|
| Number of inputs and outputs | Number of analogue outputs: 2 |             |
| Process connection           | diameter Ø 8 mm               |             |
| Liquids                      |                               |             |
| Measuring range              | [ft/s]                        | 0.15...9.85 |
| Gases                        |                               |             |
| Measuring range              | [ft/s]                        | 6...328     |

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## Flow sensor

SAEXXXB50KG/US-100

| Application                      |  |
|----------------------------------|--|
| Special feature                  | 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)<br>high-viscosity oils with viscosity: $> 40 \text{ mm}^2/\text{s}$ (104 °F) |
| Medium temperature [°F]          | -4...212   |
| Pressure rating [bar]            | 50   |
| 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 analogue outputs: 2  |
| Outputs                          |  |
| Total number of outputs          | 2  |
| Output signal                    | analogue signal  |
| Number of analogue outputs       | 2  |
| Analogue current output [mA]     | 4...20; (scalable)   |
| Max. load [ $\Omega$ ]           | 350  |
| Short-circuit protection         | yes  |
| Type of short-circuit protection | pulsed   |
| Overload protection              | yes  |
| Measuring/setting range          |  |
| Probe length L [mm]              | 200  |
| Operating mode                   | relative; absolutely liquid; absolutely gaseous  |
| Note on setting range            | Operating mode: relative   |
| Liquids                          |  |
| Measuring range [ft/s]           | 0.15...9.85  |
| Resolution [ft/s]                | 0.05   |
| Setting range [ft/s]             | 0...19.5   |
| Analogue start point ASP [ft/s]  | 0...7.95   |
| Analogue end point AEP [ft/s]    | 1.9...9.85   |
| Gases                            |  |
| Measuring range [ft/s]           | 6...328  |
| Resolution [ft/s]                | 2  |
| Setting range [ft/s]             | 0...656  |
| Analogue start point ASP [ft/s]  | 0...264  |
| Analogue end point AEP [ft/s]    | 64...328   |

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## Flow sensor

SAEXXXB50KG/US-100

| Temperature monitoring        |                 |   |
|-------------------------------|-----------------|---|
| Measuring range               | [°F]            | -4...212  |
| Resolution                    | [°F]            | 0.5   |
| Analogue start point          | [°F]            | -4...169  |
| Analogue end point            | [°F]            | 39...212  |
| In steps of                   | [°F]            | 0.5   |
| Accuracy / deviations         |                 |   |
| Flow monitoring               |                 |   |
| Temperature drift             | [cm/s x 1/K]    | 0,01 fps x 1/K (< 68 °F; > 158 °F)  |
| Temperature gradient          | [K/min]         | 100   |
| Accuracy                      |                 | ± (7 % MW + 2 % MEW); (Für Relativmodus im Bereich der größten Empfindlichkeit mit.; 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)  |
| Response times                |                 |   |
| Flow monitoring               |                 |   |
| 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 colour  |
| 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 no. | I018  |
|                               | File number UL  | E174189   |
| Mechanical data               |                 |   |
| Weight                        | [g]             | 310.5   |
| Materials                     |                 | stainless steel (1.4404 / 316L); PBT-GF20; PBT-GF30   |
| Materials (wetted parts)      |                 | stainless steel (1.4404 / 316L)   |
| Process connection            |                 | diameter Ø 8 mm   |
| 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   |

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## Flow sensor

SAEXXXB50KG/US-100

### Remarks

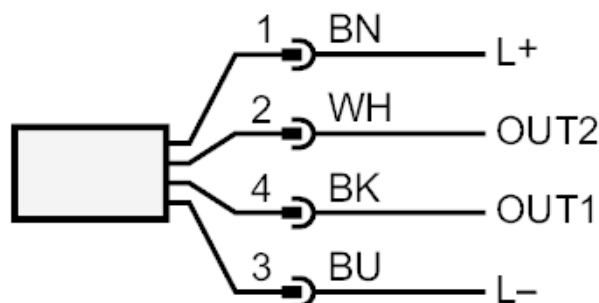
|               |  |
|---------------|--|
| Remarks       | MW = measured value                      |
|               | MEW = Final value of the measuring range |
| Pack quantity | 1 pcs.                                   |

### Electrical connection

Connector: 1 x M12; Contacts: gold-plated



### Connection



colours to DIN EN 60947-5-2

OUT1: analogue output Temperature monitoring

OUT2: analogue output volumetric flow quantity monitoring

Core colours :

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