

## SS270023

### FLOW SENSORS • SENSORS FOR WATER

The function of the flow sensor is based on the calorimetric principle. The probe is heated up from the inside a few degrees Celsius in relation to the flow medium, in which it protrudes. When the medium flows, the heat generated in the probe is dissipated through the medium. The temperature within the sensor is measured and compared with the likewise measured medium temperature. From the obtained temperature difference the flow state of each medium can be derived. These sensors are applied in areas such as monitoring of cooling systems, ventilation systems, pump dry running by checking the presence of liquid or gas flows.



#### MECHANICAL DATA

|   |                        |
|---|------------------------|
| Degree of protection (IP) of evaluation electronics | IP67                   |
| Degree of protection (IP) of measuring head         | IP67                   |
| Depth   | 112 mm                 |
| Flow rate   | 6 l/min                |
| Flow rate   | 0.1 l/min              |
| Height  | 67 mm                  |
| Housing design                                      | Cuboid                 |
| Housing material                                    | Plastic                |
| Medium temperature (MAX)                            | 80 °C                  |
| Pressure resistance                                 | 20 bar                 |
| Sensing element material                            | Stainless steel 1.4571 |
| Type of process connection                          | G1/4 inch              |
| Width   | 27 mm                  |

#### ELECTRICAL DATA

|  |                        |
|--|------------------------|
| Adjustable responding value for flow for liquids (MAX) | 0.1 m/s                |
| Adjustable responding value for flow for liquids (MIN) | 0.1 m/s                |
| Max. output current                                    | 200 mA                 |
| Measuring principle of flow                            | Calorimetric           |
| No-load current  | 50 mA                  |
| Number of pins   | 4                      |
| Operating voltage (MAX)                                | 24 V                   |
| Operating voltage (MIN)                                | 24 V                   |
| Readiness delay  | 15 ms                  |
| Residual ripple  | 10 %                   |
| Response time  | 1000 ms                |
| Reverse polarity protection                            | Yes                    |
| Setting procedure                                      | Manual adjustment      |
| Short-circuit-proof                                    | Yes                    |
| Type of analog output                                  | 4 mA ... 20 mA         |
| Type of electrical connection                          | Plug-in connection M12 |

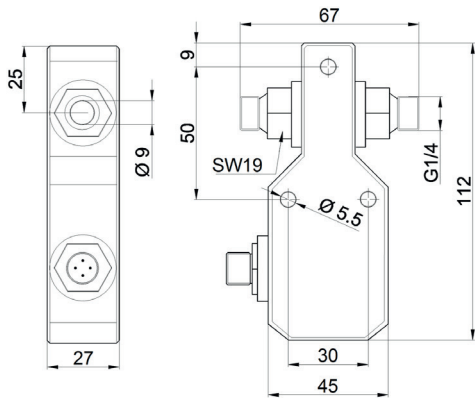
**ELECTRICAL DATA**

|                  |     |
|------------------|-----|
| Voltage type     | DC  |
| With LED display | Yes |

**OTHER DATA**

|                        |     |
|------------------------|-----|
| Cooling water circuits | Yes |
| Suitable for gases     | No  |
| Suitable for liquids   | Yes |

**DIMENSIONAL DRAWING**



**INSTALLATION**



Mounting / Installation may only be carried out by a qualified electrician!

**DISPOSAL**



**SAFETY WARNINGS**

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!

Never use these devices in applications where the safety of a person depends on their functionality.