

## SS450820

### 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	108 mm
Height	78 mm
Housing design	Cuboid
Housing material	PA
Medium temperature (MAX)	80 °C
Pressure resistance	100 bar
Sensing element material	Stainless steel V4A
Thread length	48 mm
Type of process connection	G1/2 inch
Width	50 mm

#### ELECTRICAL DATA

Adjustable responding value for flow for gases (MAX)	30 m/s
Adjustable responding value for flow for gases (MIN)	2 m/s
Adjustable responding value for flow for liquids (MAX)	3 m/s
Adjustable responding value for flow for liquids (MIN)	0.01 m/s
Air conditioning / ventilation systems	Yes
Flow range for water	1.5 m/s
Flow range for water	0.01 m/s
Max. output current	2000 mA
Measuring principle of flow	Calorimetric
No-load current	80 mA
Number of pins	4
Operating voltage (MAX)	24 V
Operating voltage (MIN)	24 V
Pressure resistance of measuring head	100 bar
Response time	13000 ms
Setting procedure	Manual adjustment
Turn-off delay	15 s

**ELECTRICAL DATA**

Type of electrical connection	Plug-in connection M12
Type of switching function	Normally open contact (NO)
Type of switching output	Relay contact
Voltage type	DC
With LED display	Yes

**OTHER DATA**

Cooling water circuits	Yes
For hydraulic applications	Yes
For pneumatic applications	Yes
Suitable for gases	Yes
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.