

SM430021

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	IP65
Degree of protection (IP) of measuring head	IP65
Flow rate	80 l/min
Flow rate	1 l/min
Housing design	Cuboid
Housing material	PBT / PVDF
Medium temperature (MAX)	60 °C
Medium temperature (MIN)	5 °C
Pressure resistance	10 bar
Sensing element material	Stainless steel 1.4571
Type of process connection	Cutting ring fitting for OD 15mm

ELECTRICAL DATA

Adjustable responding value for flow for liquids (MAX)	80 m/s
Adjustable responding value for flow for liquids (MIN)	0.2 m/s
Flow measurement	Yes
Max. output current	200 mA
Measuring head integrated in device	Yes
Measuring principle of flow	Magnetic-inductive
No-load current	100 mA
Number of pins	4
Number of switching points	1
Operating voltage (MAX)	24 V
Operating voltage (MIN)	24 V
Readiness delay	10 ms
Response time	8000 ms
Setting procedure	Parameterization
Turn-off delay	50 s
Type of analog output	4 mA ... 20 mA
Type of electrical connection	Plug-in connection M12
Type of switching function	Programmable/configurable

ELECTRICAL DATA

Type of switching output	PNP
Voltage type	DC
With LED display	Yes

OTHER DATA

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.