

SL890020**FLOW SENSORS • SENSORS FOR AIR**

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

| | |
|---|------------------------|
| Ambient temperature for evaluation electronics | -20 °C ... 70 °C |
| Degree of protection (IP) of evaluation electronics | IP65 |
| Degree of protection (IP) of measuring head | IP65 |
| Depth | 75 mm |
| Height | 174.7 mm |
| Housing design | Cuboid |
| Housing material | Polycarbonate |
| Medium temperature | -30 °C ... 80 °C |
| Pressure resistance | 16 bar |
| Sensing element material | Stainless steel 1.4301 |
| Temperature medium | -30 °C ... 80 °C |
| Type of process connection | R1/4 inch |
| Width | 194 mm |

ELECTRICAL DATA

| | |
|--|---------------|
| Air conditioning / ventilation systems | Yes |
| Flow measurement | Yes |
| Flow range for air | 0.8 l/min |
| Flow range for air | 90 l/min |
| IO-Link compatible | No |
| Max. output current | 150 mA |
| Measuring head integrated in device | Yes |
| Measuring principle of flow | Calorimetric |
| No-load current | 120 mA |
| Number of pins | 5 |
| Number of switching outputs | 1 |
| Number of switching points | 2 |
| Operating voltage | 18 V ... 36 V |
| Pressure resistance of measuring head | 16 bar |
| Rated control supply voltage U_s at DC | 18 V ... 36 V |
| Reverse polarity protection | Yes |

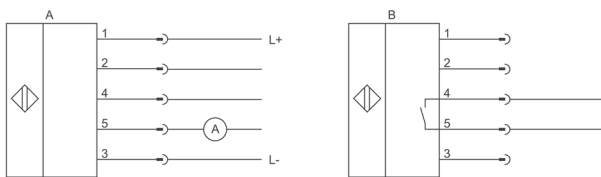
ELECTRICAL DATA

| | |
|-------------------------------|----------------------------|
| Setting procedure | Parameterization |
| Short-circuit-proof | Yes |
| Switching current | 0.15 A |
| Switching voltage | 48 V |
| Transistor output | Yes |
| Type of analog output | 4 mA ... 20 mA |
| 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 display | Yes |
| With LED display | Yes |

OTHER DATA

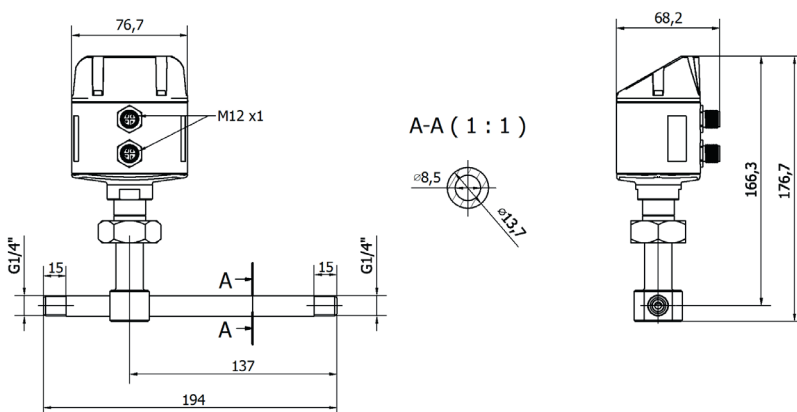
| | |
|----------------------------|-----|
| For pneumatic applications | Yes |
| Suitable for gases | Yes |
| Suitable for liquids | No |

CONNECTION



Colors: A: 1 = BN (brown), 2 = WH (white), 3 = BU (blue), 4 = BK (black), 5 = GY (gray)
 A: 1 = BN (brown), 2 = WH (white), 3 = BU (blue), 4 = BK (black), 5 = GY (gray)
Functions:

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!