



# Flow sensor F8

## 400°C SIL1

*Item no. 76106400SIL1/ [Immersion depth]*

### Description

The calorimetric air flow sensors from SEIKOM Electronic are a precise and reliable instrument for measuring gas flows. The measuring principle is based on the calorimetric method, in which the change in temperature of the sensor element is proportional to the mass of the gas volume flowing past.

Thanks to its high-precision measurement method, the sensor enables accurate determination of the mass air flow, ensuring optimal control and regulation of industrial processes. The sensor from SEIKOM Electronic offers a robust and reliable solution for a wide range of applications where accurate monitoring of air flow is critical.

### Installation conditions

The flow sensor must be connected to the corresponding evaluation unit in accordance with the connection diagram. Mixing up the connections will result in malfunctions and possibly damage.

Only screw in the sensor via the hexagon of the sensor housing. The sensor is installation position-independent and can therefore be mounted from all sides. The sensor tip should be as close as possible to the center of the pipe. The through-hole in the shaft of the sensor must be completely within the channel.

There is a small notch in the metal at the end of the sensor. This mark is intended as an installation aid and must be positioned in the direction from which the gas flow comes.

In vertical pipes, the flow direction should be upward, especially for small air flows (up to 1 m/s), in order to avoid interference from thermally rising air.

For optimal measurement, the sensor requires at least 5 x D (pipe inner diameter) of free inlet and 3 x D of outlet to avoid measurement errors due to turbulence.

To avoid malfunctions, the sensor cable extension must have a cross-section of at least 1.5 mm<sup>2</sup>. The maximum cable length should not exceed 20 m.

The switching point is set using the potentiometer on the associated evaluation unit.

Various options are available for mounting the sensor:

- **Screw the sensor** into the duct or pipe using a PG7 thread (alternative connections G1/2 inch, M16 x 1.5, and M20 x 1.5 using a reducer)
- Mounting using a **mounting flange** (item no. 1244), please note the contact temperature

## Technical data

Media temperature range	-20 to 400°C
Temperature gradient	20K/min
Immersion depth approx.	50 mm, 130 mm, 165 mm, 300 mm, 400 mm, 500 mm
Process connection	PG7 (optional with G1/2-inch reducer (item no. 80399), M 16 x 1.5 (item no. 80403) or M 20 x 1.5 (item no. 80402))
Sensor material	Stainless steel (V4A)
Pressure resistance	10 bar
Protection	IP50
Associated evaluation unit	NLSW®45-6.1 SIL1
Electrical data	
Connection cable	2.5 m / 3 x 0.25 mm <sup>2</sup>
Wire colors	black/brown/blue

## Maintenance

The flow sensor should be cleaned at regular intervals, especially when used in heavily contaminated media. Do not clean the sensor tip with a screwdriver, wire brush, or similar tool, as this may cause damage. The following procedure is recommended:

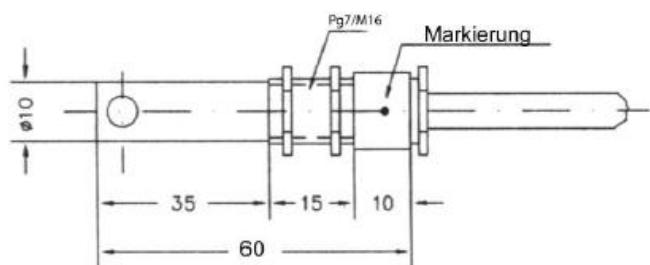
- Remove the sensor

- Carefully place the sensor in lukewarm soapy water for approx. 10 minutes (depending on the degree of contamination).
- Carefully rinse the sensor with lukewarm water and then allow it to dry for at least 24 hours
- Install the sensor when dry
- Start flow monitoring and, if necessary, recalibrate with the evaluation unit

<b>Testmark</b>	Type-tested TÜV Nord nach DIN EN 61010-1 2011-07 Classification exida
<b>Item number</b>	
<b>Flow sensor F8 400°C SIL1</b>	
<b>Item</b>	<b>76106400SIL1/ 50</b>
<b>Immersion depth</b>	
50	50 mm
130	130 mm
165	165 mm
300	300
400	400
500	500 mm

## Dimensions

Sensor F8 SIL1/50 (example):



*Sensor with other immersion depths correspondingly longer.*