



# Flow sensor F6 SIL1 for liquids and gases

*Article no. 76105SIL1/ [Immersion depth]*

## Description

The calorimetric flow sensors from SEIKOM Electronic are a precise and reliable instrument for measuring liquid- and 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.

Due to the highly accurate measurement method, the sensor enables precise determination of the mass 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 the liquid and gas flow is crucial.

## Installation conditions

The flow sensor must be connected to the associated evaluation unit according to the connection diagram. Mixing up the connections will lead to malfunctions and possibly damage.

Screw in the sensor only via the hexagon of the sensor housing. The sensor is independent of the installation position 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 inside the duct.

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

To measure air flows, the sensor requires at least 5 x D (pipe inner diameter) of the free inlet and 3 x D of the

outlet for optimum measurement to avoid false measurements due to turbulence.

To avoid malfunctions, the sensor cable must be extended with a cross-section of at least 1.5 mm<sup>2</sup>. The maximum cable length should not exceed 50 m.

The glycol content in cooling circuits must not exceed 30%, otherwise false tripping and functional failure are possible.

The switching point is set via the potentiometer of the associated evaluation unit.

For mounting the sensor, it is recommended to screw the sensor into the duct or pipe by means of the G1/2-inch or G1/4-inch connections.

### Technical data

Media temperature range	-10 ... 80°C
Temperature gradient	15K/min.
Immersion depth approx.	25 mm, 46 mm, 48 mm, 70 mm, 150 mm
Process connection	G1/2-inch, G1/4-inch, M 14 x 1.5
Sensor material	Stainless steel V2A, 1.4305
Compressive strength	20 bar
Protection class	IP67
Associated evaluation unit	NLSW®45-4 SIL1
Testmark	Type-tested TÜV Nord

### Electrical data

Connection line	Silicone-free, 2.5 m / 4 x 0,34 mm <sup>2</sup>
Temperature range sensor cable moved	-5°C ... 80°C
not moved	-40°C ... 80°C
Wire colors	green/ yellow/ white/ brown/ ground connection black

### Maintenance instructions

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, as there is a risk of damage. The following procedure is recommended:

- Disassemble sensor
- Carefully soak the sensor in lukewarm soapy water for approx. 10 min. (depending on the contamination).
- Carefully rinse the sensor with lukewarm water
- Mount sensor
- Start up the flow monitor and, if necessary, carry out a new calibration with the evaluation unit.
- Do not use the sensor in solutions containing chlorine or in fittings/pipes made of copper, brass or red brass in order to avoid pitting.

### Article number flow sensor F6 SIL1

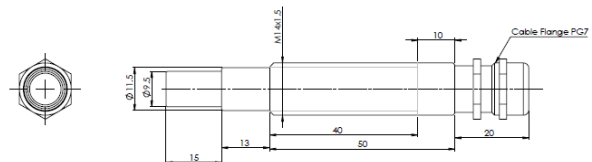
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### Immersion depth

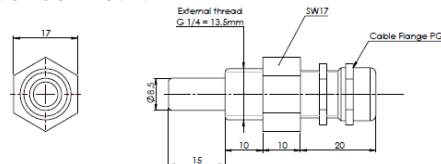
25	25 mm	G 1/4 inch
48	48 mm	G 1/4 inch
70	70 mm	M14x1,5
46	46 mm	G 1/2 inch
150	150 mm	G 1/2 inch

### Dimensions

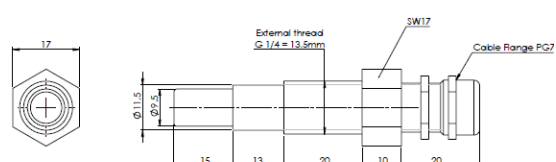
Sensor F6.1:



Sensor F6.2:



Sensor F6.3:



Sensor F6.4:

