



FS.DS.A

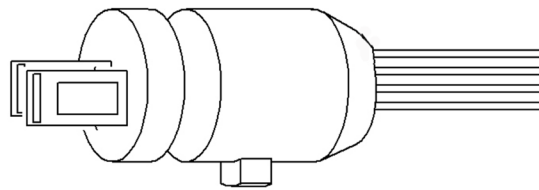
Thermal Mass Flow Sensor

Optimal for low gas flow applications up to 150 °C

Benefits & Characteristics

- Decoupled sensor and heater element
- Simple signal processing and calibration
- Stable Pt technology
- Excellent long-term stability and reproducibility
- Easy integration in various applications
- Same housing dimensions as FS7.A element
- Customer-specific adaptation upon request

Illustration¹⁾



1) Schematic drawing, for actual size see technical data

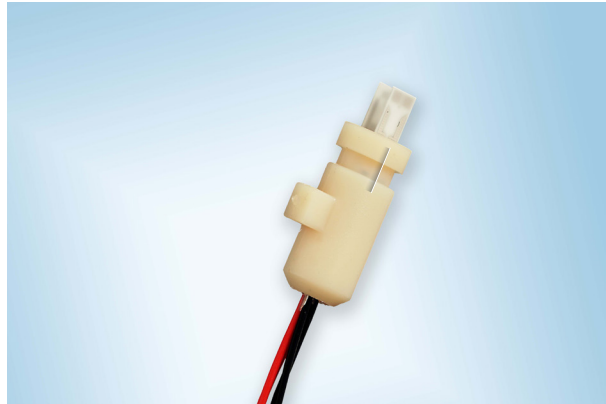
Technical Data

Dimensions:*	Housing: \varnothing 6.0 (\pm 0.1) mm, L_H = 14 (\pm 0.2) mm Sensor elements (outside hotmelt): 4.0 (\pm 0.2) x 2.4 (\pm 0.2) mm (LxW) Distance between sensor elements: 2.4 (\pm 0.2) mm
Operating measuring range:	0 m/s to 100 m/s
Response sensitivity:	0.01 m/s
Accuracy:	< 3 % of the measured value (dependent on the electronics and calibration)
Response time t_{63} :	~200 ms (jump from 0 to 10000 sccm)
Operating temperature range:*	-20 °C to +150 °C
Temperature sensitivity:	< 0.1 %/K (dependent on the electronics)
Connection:*	4 pins, AWG 30/7, stranded wire, insulated with PTFE, Colour coding: red heater, black temperature 155 mm long, 5 mm stripped
Heater:*	$R_H(0\text{ °C}) = 45\ \Omega \pm 1\ \%$
Reference temperature element:*	$R_S(0\text{ °C}) = 1200\ \Omega \pm 1\ \%$
Voltage range (nominal):*	2 V to 5 V (at $\Delta T = 30\text{ K}$ ($0\text{ m/s} \leq v_{\text{gas}} \leq 100\text{ m/s}$))
Maximum heater voltage:*	3 V (at 0 m/s)
Sealing ring:	compatible with o-ring \varnothing 4 x 1.5 mm

* Customer-specific alternatives available



Product image



Order Information

Product name:	FS.DS.A.1L.155
Order code:	155846

Evaluation Electronics

	Product code:
Flow Demo Board:	104018

Additional Documents

	Document name:
Application Note with handling instructions:	AFFS7_E

