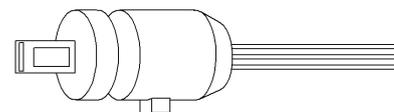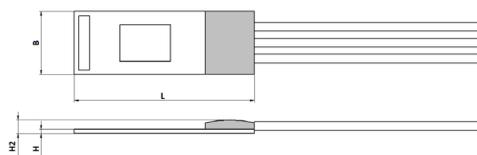# FS7
Thermal Mass Flow Sensor
Optimal for various gas flow applications up to 150 °C

Benefits & Characteristics

- Easy adaptation in various applications and housings
- Simple signal processing
- Simple calibration
- Stable platinum technology
- Excellent reproducibility

- Excellent long-term stability
- Symmetrical heater design and heightened sensitivity
- Customer-specific sensor available upon request
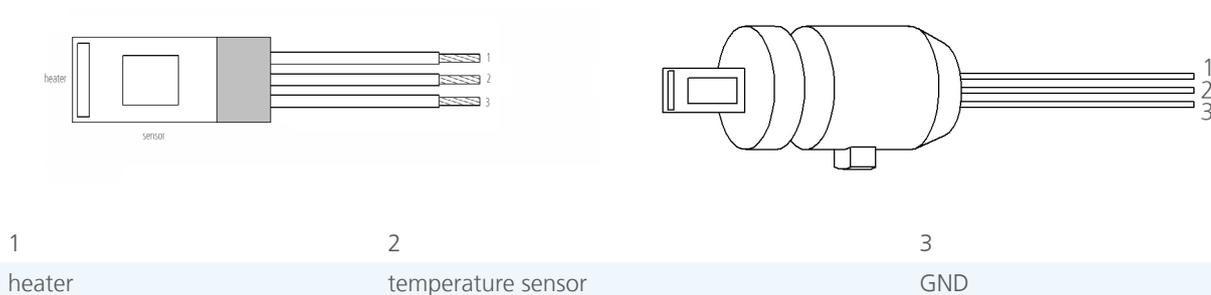
Illustration[1]

1) For actual size, see dimensions

Technical Data

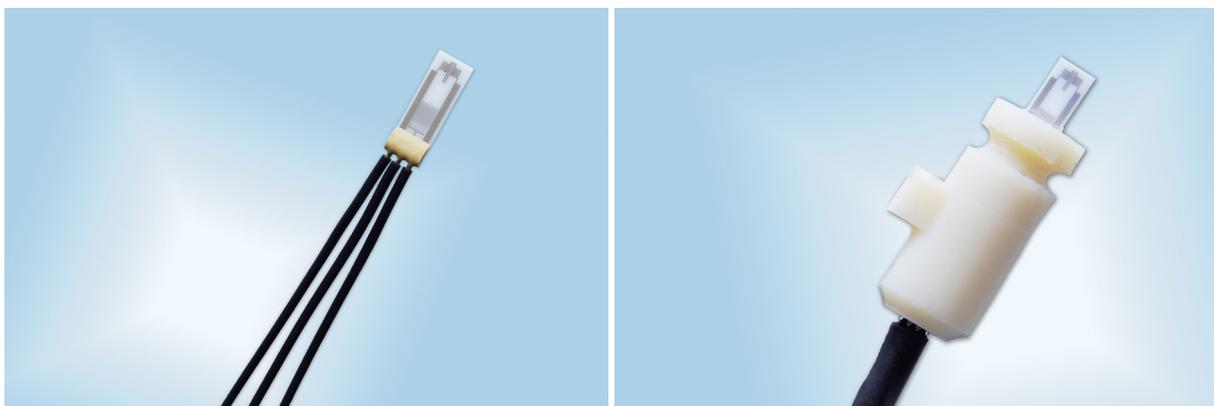|	
Dimensions (L x W x H / H2 in mm):*	6.9 x 2.4 x 0.20 / 0.60 Ø 6.0 (±0.1) mm, L_H = 14 (±0.2) mm (complete dimensions in application note)
Operating measuring range:	0 m/s to 100 m/s
Response sensitivity:	0.01 m/s
Accuracy:	< 3 % of the measured value (dependent on the electronics and calibration)
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:*	3 pins, AWG 30/7, stranded wire, insulated with PTFE
Heater:*	R_H (0 °C) = 45 Ω ±1 %
Reference element:*	R_s (0 °C) = 1200 Ω ±1 %
Voltage range (nominal):*	2 V to 5 V (at Δ T = 30 K (0 m/s ≤ v_{gas} ≤ 100 m/s)
Maximum heater voltage:*	3 V (at 0 m/s)
Alternative construction:*	Moulded plastic housing

* Customer-specific alternatives available

Pin Assignment

1	2	3
heater	temperature sensor	GND

Product images

Order Information - Stranded wire, AWG 30/7, PTFE insulated

Dimension (L x W x H in mm)	Without plastic housing	With plastic housing
6.9 x 2.4 x 0.20	FS7.0.1L.195	
Order code	103705	
Former order code	*050.00216*	
Ø 6.0 (±0.1) mm, L = 14 (±0.2) mm		FS7.A.1L.195
Order code		103706
Former order code		*050.00217*

Additional Electronics

	Document name:
Module:	DFFS_FSL_Module_E

Additional Documents

	Document name:
Application Note:	AFFS7_E