

FS7

Thermal mass flow sensor

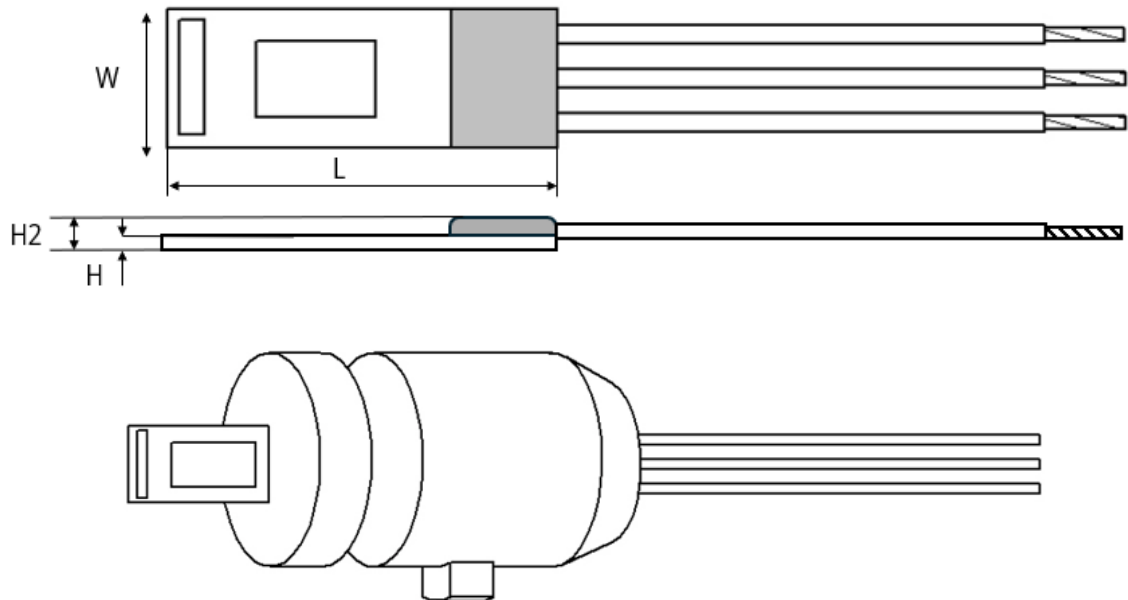
Optimal for various gas flow applications up to 150 °C

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 on request



Illustration





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, LH = 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:*

$R_H (0\text{ °C}) = 45\ \Omega \pm 1\ \%$

Reference 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:*

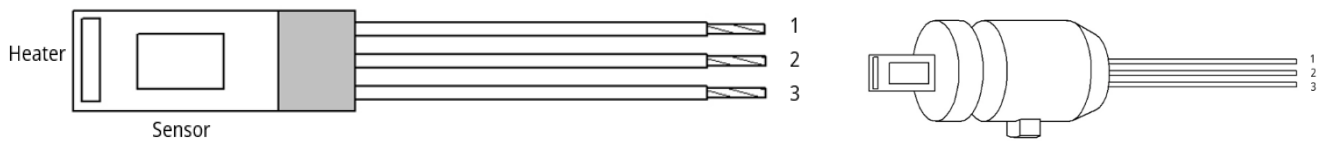
3 V (at 0 m/s)

Alternative construction:*

Moulded plastic housing

*Customer-specific alternatives available

Pin Assignment



1	2	3
Heater	Temperature Sensor	GND



Order information



Product name	Description	Dimensions L x W x H	Order code
FS7.0.1L.195	Flow sensor with stranded wire AWG 30/7 PTFE insulated	6.9 x 2.4 x 0.2 mm	103705
FS7.A.1L.195	Flow sensor with plastic housing and stranded wire AWG30/7 PTFE insulated	Ø 6.0 (±0.1),mm L = 14 (±0.2) mm	103706



Additional Electronics



Document name:

Module:	DFFS_FSL_Module_E
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Additional Documents

Document name:

Application Note	AFFS7_E
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