Innovative Sensor Technology

physical. chemical. biological.

FS2

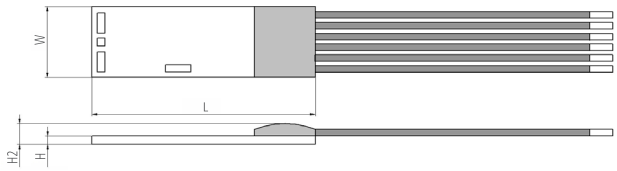
Thermal Mass Flow Sensor

Optimal for measuring gas flow and direction

Benefits & Characteristics

- Detection of flow direction
- Simple signal processing
- Outstanding sensitivity
- Stable platinum technology
- No moving mechanical parts
- Excellent long-term stability
- Simple calibration
- Bare sensor element resists up to +450 °C (customer specific)
- Excellent reproducibility
- Customer-specific sensor available upon request

Illustration[1)]



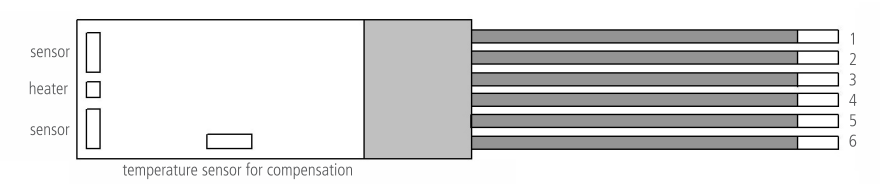
1) For actual size, see dimensions

Technical Data

Dimensions (L x W x H / H2 in mm):*	5.0 x 3.5 x 0.20 / 0.60
Operating measuring range:	0 ml/min to 50 ml/min (half bridge mode) 0 m/s to 1 m/s (half bridge mode) 0 m/s to 100 m/s (CTA mode) 0 l/min to 5 l/min (CTA mode)
Minimum operating range:	0 ml/min to 2.5 ml/min
Response sensitivity:	0.001 m/s (50 µl/min)
Accuracy:	< 2 % of the measured value (dependent on the electronics and calibration)
Response time t_{63}:	< 0.5 s
Operating temperature range:*	-20 °C to +150 °C
Temperature sensitivity:	< 0.1 %/K (dependent on the electronics)
Connection:*	Cu-wire, enameled, Ø 0.2 mm
Heater:*	R_H (25 °C) = 34 Ω ±10 %
Measuring element:*	R_{s_i} (25 °C) = 425 Ω ±10 %
Reference element:*	R_R (25 °C) = 710 Ω ±10 %
Voltage range (nominal):*	2 V to 5 V (dependent on flow rate)

* Customer-specific alternatives available

Pin Assignment



1	2	3	4	5	6
GND	temperature sensor 1	heater	heater	temperature sensor 2	temperature sensor for compensation

Order Information - Cu-wire, enameled, Ø 0.2 mm

Wire length	25 mm	300 mm
	FS2T.0.1E.025	FS2T.0.1E.300
Order code	050.00130	350.00188

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