



FS2

Thermal Mass Flow Sensor

Optimal for measuring gas flow and direction



INNOVATIVE SENSOR TECHNOLOGY

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
- Excellent reproducibility
- Customer specific sensor available upon request

Illustration



Technical Data

| | |
|---------------------------------|---|
| Dimensions (L x W x H in mm):* | 5 x 3.5 x 0.15 |
| 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 microliter/min) |
| Accuracy: | < 2 % of the measured value (dependent on the electronics and calibration) |
| Response time t_{63} : | < 0.5 s |
| Temperature range:* | -20 °C to +150 °C |
| Temperature sensitivity: | < 0.1% / K (dependent on the electronics) |
| Wire: | enamelled Cu-wire, Ø 0.2 mm |
| Heater resistance:* | $R_H(25\text{ °C}) = 34\text{ Ohm} \pm 10\%$ |
| Measuring element:* | $R_{s_i}(25\text{ °C}) = 425\text{ Ohm} \pm 10\%$ |
| Temperature sensor:* | $R_R(25\text{ °C}) = 710\text{ Ohm} \pm 10\%$ |
| Max. supply voltage (typical):* | 2 V to 5 V (dependent on flow rate) |

* Customer specific alternatives available



FLOW



TEMPERATURE



HUMIDITY



CONDUCTIVITY

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Order Information - Enamelled Cu-wire, Ø 0.2 mm

| | | |
|-------------|---------------|--------------------|
| Wire length | 25 mm | 300 mm (+/- 20 mm) |
| | FS2T.0.1E.025 | FS2T.0.1E.300 |
| | 050.00130 | 350.00053 |

DFFS2_E2.1



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