Innovative Sensor Technology

physical. chemical. biological.

# FS7.0.1L.195

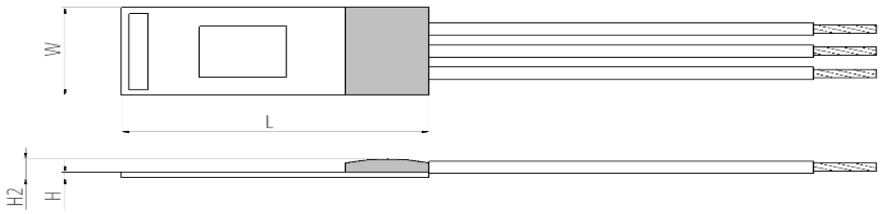
## Thermal Mass Flow Sensor

## 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 long-term stability
- Excellent reproducibility
- Symmetrical heater design and heightened sensitivity

### Illustration[1)]



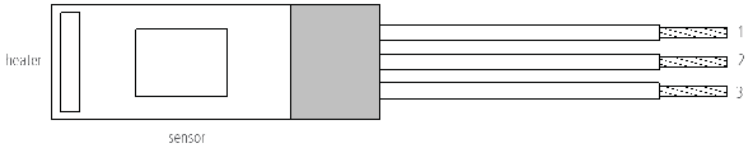

1) For actual size, see dimensions

### Technical Data

| | |
|---|---|
| Dimensions (L x W x H / H2 in mm): | 6.9 x 2.4 x 0.20 / 0.60 |
| 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, 195 mm long |
| 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) |

## Product Photo

## Pin Assignment




| 1 | 2 | 3 |
|---|---|---|
| heater | temperature sensor | GND |

## Order Information

| Description: | Item number: | Former main reference: |
|---|---|---|
| FS7.0.1L.195 | 103705 | 050.00216 |

## Additional Electronics

| Description: | Item number: | Former main reference: |
|---|---|---|
| Flow Demo Board FS7 - board without sensor | 104017 | 160.00022 |
| Flow Demo Board FS7 - board with FS7 sensor (with housing) | 104018 | 160.00023 |

## Additional Documents

| | Document name: |
|---|---|
| Application Note: | AFFS7_E |

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