

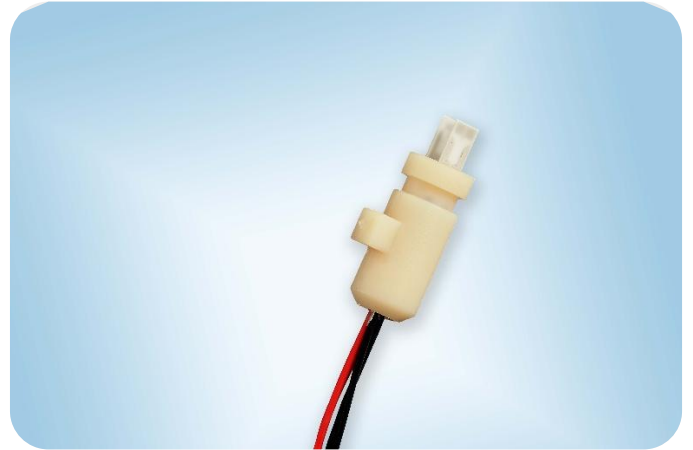
## FS.DS.A

### Thermal mass flow sensor

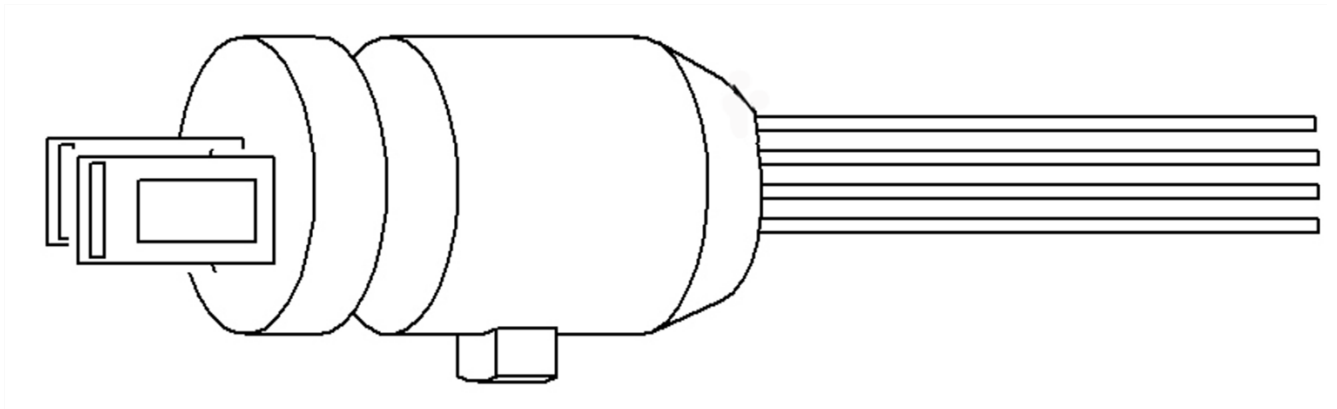
Optimal for low gas flow applications up to 150 °C

#### 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<sup>1)</sup>



1) Schematic drawing, for actual size see technical data



## Technical data



Dimensions (L x W x H / H2 in mm):\*

Housing:  $\varnothing$  6.0 ( $\pm 0.1$ ) mm,

$L_H = 14$  ( $\pm 0.2$ ) mm

Sensor elements (outside hotmelt):

4.0 ( $\pm 0.2$ ) x 2.4 ( $\pm 0.2$ ) mm (LxW)

Distance between sensor elements:

2.4 ( $\pm 0.2$ ) mm

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:\*

4 pins, AWG 30/7, stranded wire, insulated with PTFE,  
Colour coding:  
red = heater, black = temperature  
155 mm long, 5 mm stripped

Heater:\*

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

Reference element:\*

$R_S$  (0 °C) = 1200  $\Omega$   $\pm 1$  %

Voltage range (nominal):\*

2 V to 5 V (at  $\Delta T = 30$  K ( $0 \text{ m/s} \leq v_{\text{gas}} \leq 100 \text{ m/s}$ ))

Maximum heater voltage:\*

3 V (at 0 m/s)

Sealing ring:

compatible with o-ring  $\varnothing$  4 x 1.5 mm

\*Customer-specific alternatives available



## Order information



Product name	Description	Order code
FS.DS.A.1L.155	Double flow Sensor	155846



## Additional Electronics



Product name	Description	Order code
Flow Demo Board	Evaluation Electronics	104018



## Additional Documents



### Document name:

Application Note	AFFS7_E
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Innovative Sensor Technology IST AG • Stegrütistrasse 14 • 9642 Ebnat-Kappel • Switzerland  
 +41 71 992 01 00 • [info@ist-ag.com](mailto:info@ist-ag.com) • [www.ist-ag.com](http://www.ist-ag.com)

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