Innovative Sensor Technology

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Flow Demo Board
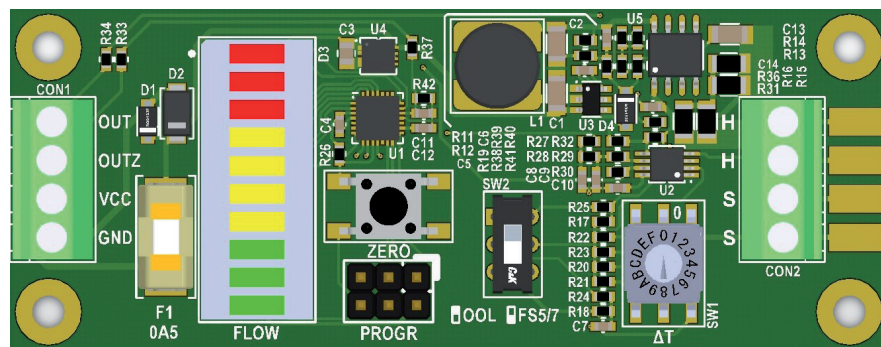## Evaluation of flow sensors
Suitable for gas and liquid flow sensors
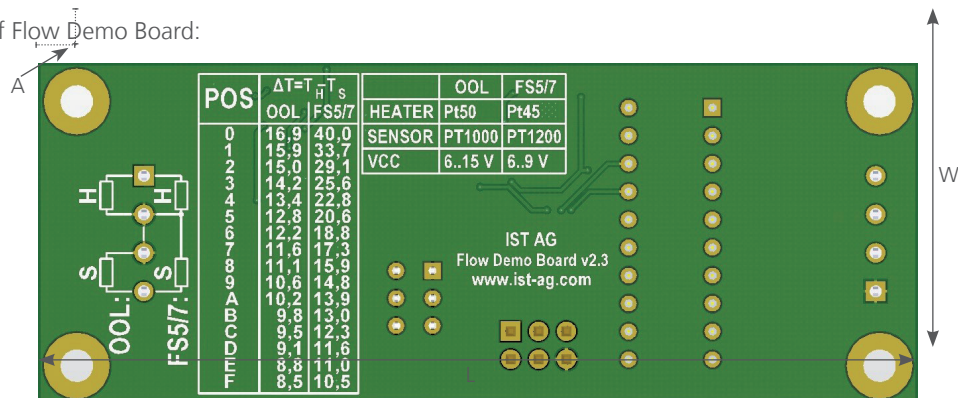
Benefits & Characteristics

- Compatible with FS5/7 flow sensors
- Compatible with OOL flow sensors
- Constant Temperature Anemometer (CTA)
- Programmable temperature difference between heater and temperature sensor

- LED bar indicates current flow
- Analog Wheatstone Bridge (direct output)
- Protected with user replaceable fuse
- Output with zero flow offset subtraction

Illustration[1]

Front side of Flow Demo Board:

Back side of Flow Demo Board:

POS	ΔT=T_H-T_S			OOL	FS5/7
	OOL	FS5/7	HEATER	Pt50	Pt45
0	16,9	40,0	SENSOR	PT1000	PT1200
1	15,9	33,7	VCC	6..15 V	6..9 V
2	15,0	29,1			
3	14,2	25,6			
4	13,4	22,8			
5	12,8	20,6			
6	12,2	18,8			
7	11,6	17,3			
8	11,1	15,9			
9	10,6	14,8			
A	10,2	13,9			
B	9,8	13,0			
C	9,5	12,3			
D	9,1	11,6			
E	8,8	11,0			
F	8,5	10,5			

IST AG
Flow Demo Board v2.3
www.ist-ag.com

1) For actual size, see dimensions

Pin Assignment

GND:	Negative supply voltage	H:	Heater (inner = GND)
VCC:	Positive supply voltage	S:	Sensor (inner = GND)
OUT:	Output – Bridge's voltage		
	Output with zero flow offset subtraction		

Technical Data

Dimensions (L x W x H in mm):	80 x 31 x 15; (A: 3.5 mm)
Operating temperature range:	-20 °C to +85 °C
Supply voltage for FS5/FS7 sensors:	6 to 9 V (typically 9 V)
Supply voltage for OOL sensors:	6 to 15 V (typically 12 V)
Supply current:	0.02 to 0.3 A
Maximum output voltage:	VCC -2 V

Product Description

The IST AG Flow Demo Board is a universal board allowing the user to measure performance of IST AG gas and liquid flow sensors. It utilizes the Constant Temperature Anemometer principle using an analog Wheatstone Bridge. The Demo Board is designed to work with both FS5/7 and Out Of Liquid flow sensors. The user can easily program the temperature difference between heater and temperature sensor using a rotary switch and subtract zero flow offset from output voltage using OUTZ output and ZERO button. The sensor (FS5/7 or OOL) can be screwed to the PCB by using terminal blocks or directly soldered to the exposed pads of the PCB. Additionally, the user can limit power dissipated in the heater using supply voltage. The Flow Demo Board is not temperature-compensated.

Please read our Quick Start Guide for the Flow Demo Board before powering it. Applications:
- Gas flow meters
- Liquid flow meters
- Gas flow detectors
- Liquid flow detectors
- Liquids presence detectors

Order Information[3]

Order code / *Former order Code:*	
108327	Board without sensor
104018 / *160.00023*	Board with FS7 sensor (with housing)
104019 / *160.00024*	Board with 6 mm Out of Liquid sensor
104021 / *160.00026*	Board with 4 mm Out of Liquid sensor
104022 / *160.00027*	Board with Real Probe sensors

Additional Documents

	Document name:
Quick Start Guide:	QSGF_Demo_Board_E
Data sheet:	DFFS5_E
	DFFS7_E DFOOL_E
Application note:	AFFS5_E AFFS7_E