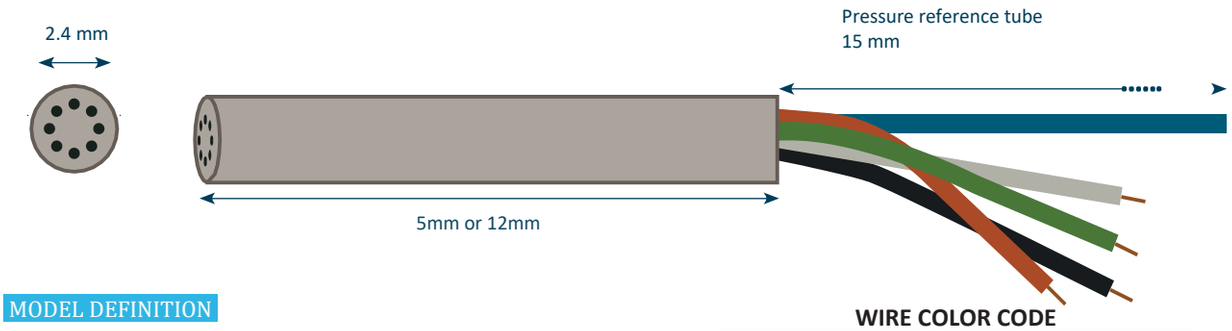
SENSORADE

Miniaturized aerodynamic flow measurement

Miniaturised differential pressure sensor

2,4mm up to 100C° MP-2.40-TIG-YYY-D-ST-ZZ- XX



MODEL DEFINITION

TIG : Inconel tube with grid is the standard product
YYY: pressure range in psig (005, 015, 030, 080, 150)
D : differential pressure measurement
ST : standard temperature up to 100C°
ZZ: length of the tube (05, 12)
XX: **00:** Unshielded wires
01: Shielded wire

WIRE COLOR CODE

BLACK	Input -
RED	Input +
WHITE	Output -
GREEN	Output +

FEATURES



- Reduced size : Ø 2.4 mm
- Integrated field shield
- Temperature range : up to 100°C
- Full scale range of 5 to 150 PSI
- Customized solution possible mVolt output
- Highest resonance frequency on the market
- Unshielded wires : UAA-3601-WH/…-BK/…-RD/…-GR
  Or
  Shielded wire: TAU-3607.04
- Wire length: 1m
- Amplification can be done for a special request

Ideal for dynamic pressure measurement

APPLICATIONS

MEDICAL
- Patient monitor
- Oxygen Concentrators
- Fluid Evacuation

INDUSTRIAL
- Industrial Controls
- Compressors & Pumps
- Oil-Filled Package

AEROSPACE
- Ideal for Wind Tunnel aerodynamic measurement

AUTOMOTIVE
- Diesel Particulate Filter Exhaust Gas Recirculation Automotive Systems

Instrumentation Devices

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Resonance frequency

- Highest resonance frequency of 310 KHz of the market
- The tests have been done on a Polytec MSA-500 using Scanning laser-Doppler vibrometry.

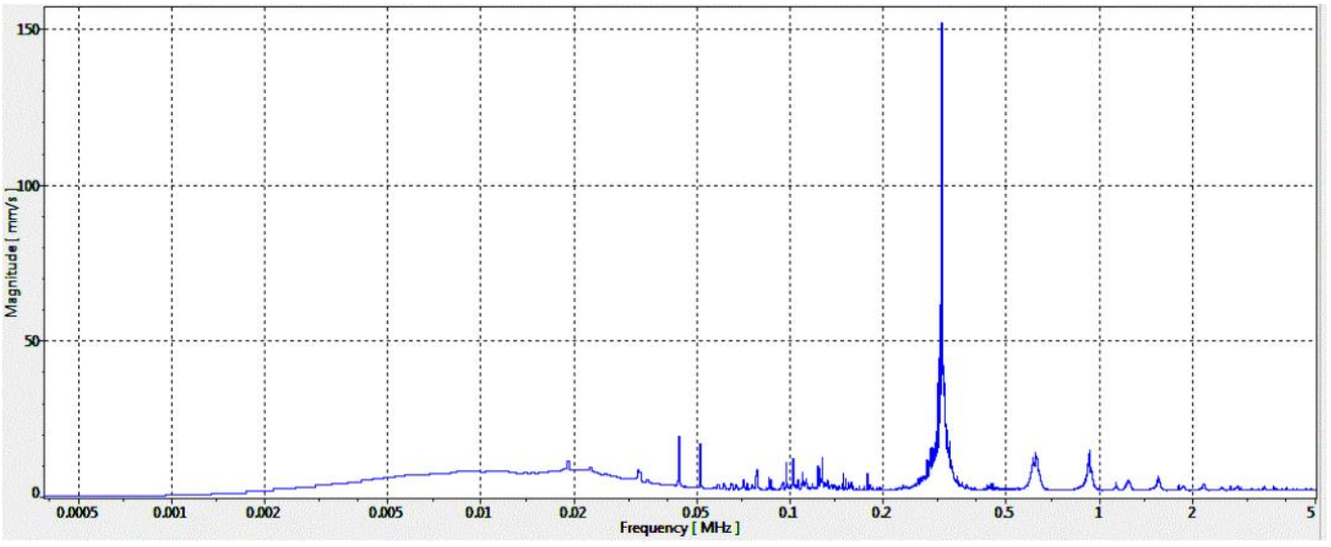


Figure 1: Result for the 30 PSI MEMS differential pressure sensors

SENSORADE

Miniaturized aerodynamic flow measurement

PART NUMBER MP-2.40-TIG-YYY-D-ST-ZZ-XX

Pressure Range	Proof Pressure	Burst Pressure
0 → 5 PSIG	25 PSI	40 PSI
0 → 15 PSIG	45 PSI	75 PSI
0 → 30 PSIG	90 PSI	150 PSI
0 → 80 PSIG	240 PSI	320 PSI
0 → 150 PSIG	300 PSI	450 PSI

Characteristic		Minimum	Typical	Maximum	Unit
Span[4]	0 → 5 PSIG	60	90	120	mV
	0 → 15 PSIG	55	80	105	
Zero Offset		-45	-10	25	mV
Bridge Resistance (RB)		4	5	6	kΩ
Pressure Hysteresis (d)[1]		-	<±0.1	-	%/FS
Thermal Hysteresis (d,f)		-	<±0.2	-	%/FS
Operating Temperature[2]		-		+100	°C
Max Excitation Voltage		-	-	10	V
TC Span[3]		-0.24	-0,19	-0.155	%/°C
TC Zero Offset[3]		-75	-	75	µV/°C
TC Resistance[3]		0.24	0.275	0.33	%/°C
Linearity - Topside[1]		-0.15	<±0.10	0.15	%/FS
Linearity - Backside	5 PSI	-0.3	<±0.2	0.3	%/FS
	15, 30, 80, 150 PSI	-0.15	<±0.10	0.15	

Remark:

- All sensors are provided with a control sheet given pressure level versus mVolt @25C° under a supply voltage of 5 Volt.
- Temperature measurement/compensation available. See our tutorial on our website.
- Conditioning system on request.
- Frequency > 300 KHz under vacuum condition.
- High robustness: specific protection on wire bonding @MEMS level (protection against particles, dust, condensation...) without impact on frequency measuring range.

1 | Accuracy @25 Celsius ; 2 | TMCL qualification tests – JEDEC JESD22-A104 « temperature cycling » @ Tmax ; 3 | @MEMS level; 4 | Amplification can be done for a special request

CONTACT

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