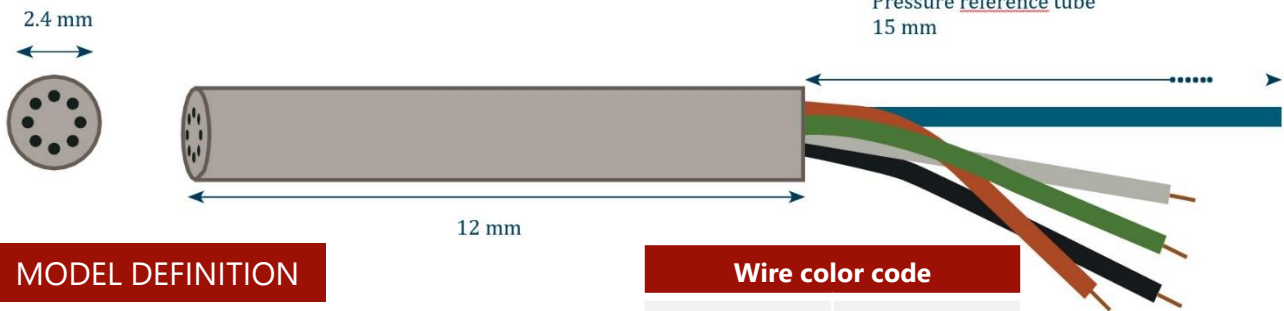


Miniaturised differential pressure sensor

2,4mm up to 100°C

MP-2.40-TIG-YYY-D-ST



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 100°C
Options: special tubes (sensor and reference) length, material and grid shape also available on request.

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
- Amplification can be done for a special request
- Ideal for dynamic pressure measurement



APPLICATIONS

MEDICAL

- Patient monitor
- Oxygen Concentrators
- Fluid Evacuation

AEROSPACE

- Ideal for Wind Tunnel aerodynamic measurement

INDUSTRIAL

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

AUTOMOTIVE

- Diesel Particulate Filter Exhaust Gas Recirculation Automotive Systems

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.

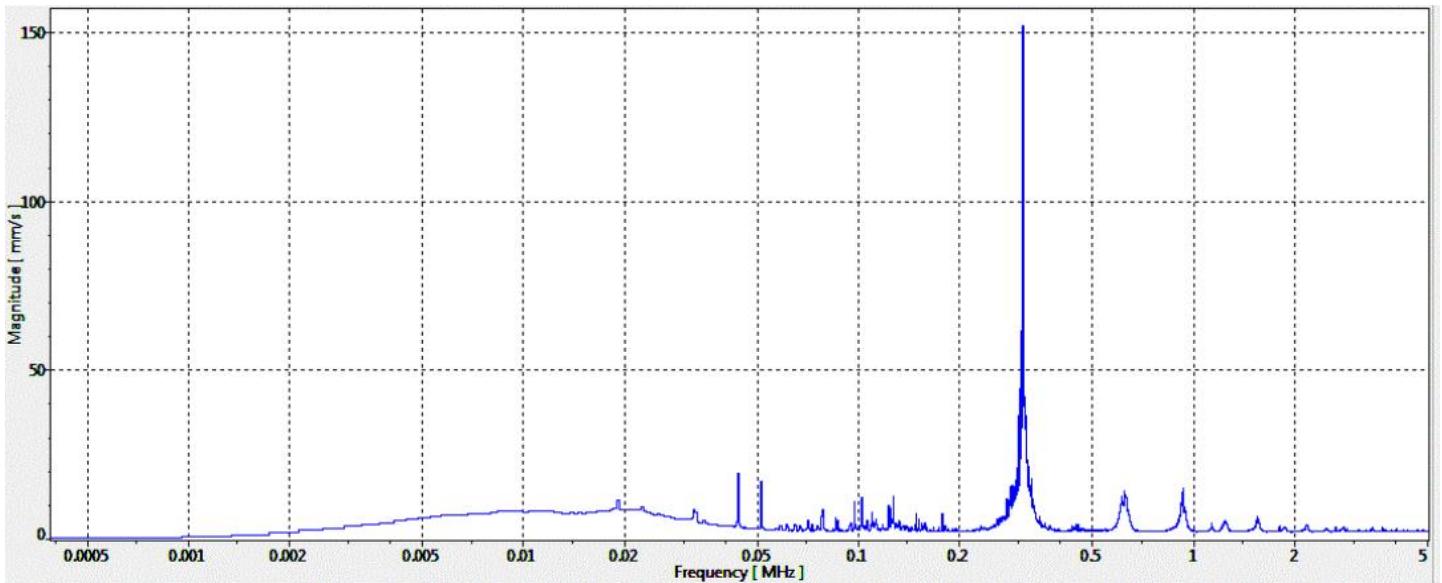
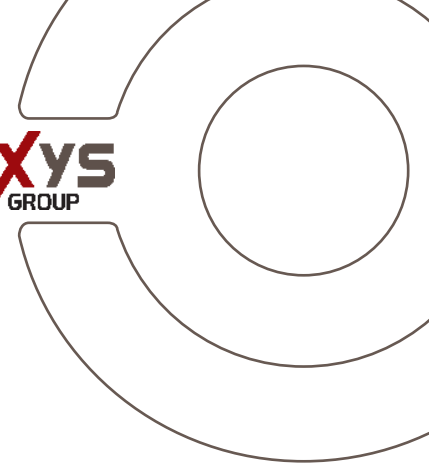


Figure 1: Result for the 30 PSI MEMS absolute pressure sensors

PART NUMBER		MP-2.40-TIG-YYY-D-ST	
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 (R)		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.
- 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: