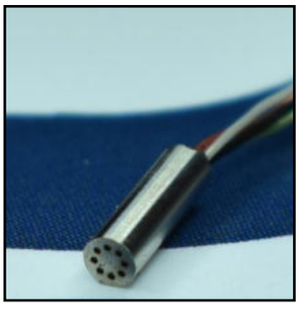
SENSORADE

Miniaturized aerodynamic flow measurement

Very small pressure sensor for harsh environment High Temperature

1,55 mm up to 185C° **MP-1.55-XXX-YYY-A-ZZ**



MODEL DEFINITION

XXX: TIG: Inconel tube with grid is the standard product
TSG: Stainless steel tube with grid
TIO: Inconel tube (open configuration)
TSO: Stainless steel (open configuration)

YYY: pressure range in bar (002, 004, 007) Or in PSI (030, 060, 100)

A: absolute pressure measurement

ZZ: ST: standard temperature up to 100C°
HT: high temperature up to 185C°

Options: special tube length, material and grid shape also available on request

OVERVIEW

- Outer diameter 1.55 mm
- From 2 to 7 Bar Absolute pressure sensor
- Burst pressure 7 bar
- Wide temperature range up to 185C°
- Harsh environment
- Customized solution possible
- mVolt output
- Highest resonance frequency on the market
- Amplification can be done for a special request

APPLICATIONS

- Instrumentation (ie: Automotive, ...)
- Aerodynamic testing (ie: wind tunnel)
- Industrial process monitoring
- Pumps
- Biomedical
- Oil and gas
- ...

Resonance frequency

- Highest resonance frequency of 2.7 MHz of the market
- The tests have been done on a Polytec MSA-500 using Scanning laser-Doppler vibrometry.

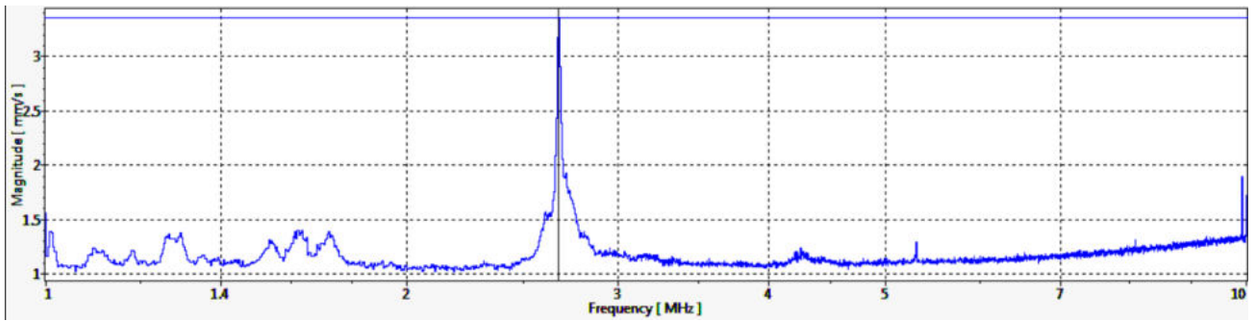


Figure 1: Result for the 30 PSI MEMS absolute pressure sensors

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PART NUMBER	MP-1.55-XXX-YYY-A-ZZ

Outer diameter	1.55mm
Pressure range[1]	0-2 bar 0-4 bar 0-7 bar 0-30 psi 0-60 psi 0-100 psi
Max nominal pressure	2 bar 4 bar 7 bar 30 psi 60 psi 100 psi
Proof pressure[1]	3 * nominal
Burst pressure[1]	5 * nominal
Bridge resistance	6.2 kΩ typical / (5-7 kΩ)
Vout span[4]	100 mV typical / (65-135mV)
Excitation voltage	5V
Tmax[2]	100 Celsius (ST) - 185 Celsius (HT)
Accuracy[3]	0.25% @ FS
Signal amplification	None

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.

1 | Absolute pressure

2 | TMCL qualification tests – JEDEC JESD22-A104 « temperature cycling » @ Tmax

3 | Accuracy @25 Celsius

4 | Amplification can be done for a special request

CONTACT

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