

bar MP-1.55 ULTRA MINIATURE FLAT PRESSURE SENSOR

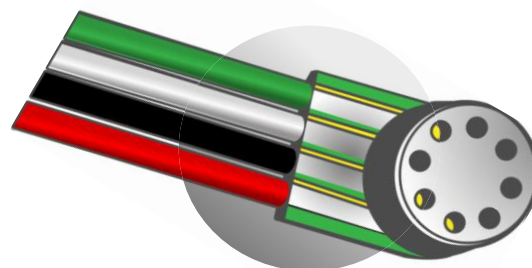
1,55 mm up to 100C°

Very small pressure sensor for harsh environment Standard Temperature - Flat

SENSORADE
Miniaturized aerodynamic flow measurement

FEATURES

- L x W: 1.55mm x 3 mm
- From 2 to 7 bar Absolute pressure sensor
- Burst pressure 7 bar
- Wide temperature range up to 100C°
- 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

MODEL DEFINITION

TIG: Inconel tube with grid is the standard product

YYY: pressure range in bar (002, 004, 007)

A: absolute pressure measurement

ST: standard temperature up to 100C°

FLAT: flat shape

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

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

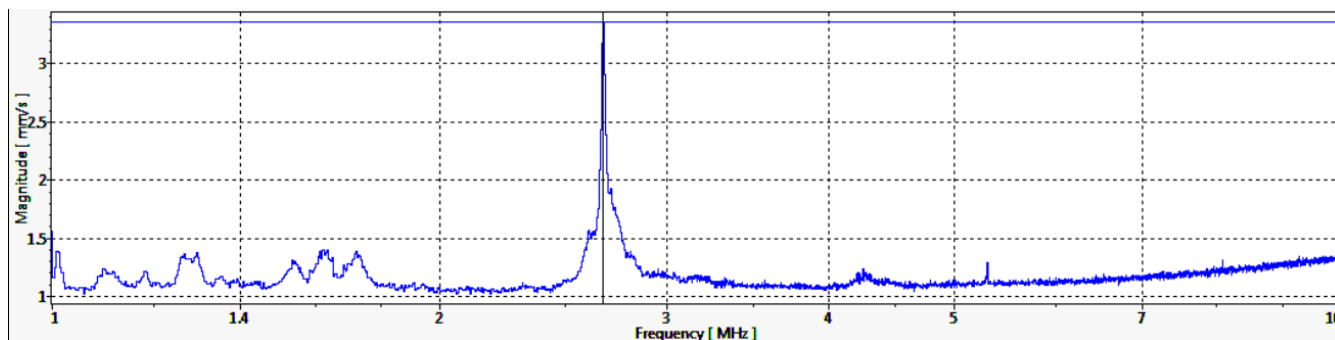


Figure 1: Result for the 30 PSI MEMS absolute pressure sensors



SPECIFICATIONS

| PART NUMBER | MP-1.55-TIG-YYY-A-ST-FLAT |
|-----------------------------|---|
| L x W | 1.55 mm x 3 mm |
| 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 |
| Accuracy ³ | 0.25% @ FS |
| Signal amplification | None |

REMARK

- All sensors are provided with a control sheet given pressure level versus mVolt @ 25 C° under a supply voltage of 5 Volt.
- Temperature measurement/compensation available.

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

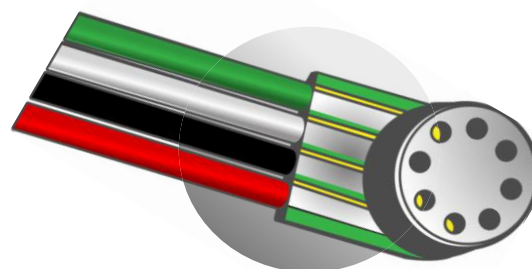
bar MP-1.55 ULTRA MINIATURE FLAT PRESSURE SENSOR

1,55 mm up to 185C°

Very small pressure sensor for harsh environment High Temperature - Flat

FEATURES

- L x W: 1.55mm x 3 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



MODEL DEFINITION

TIG: Inconel tube with grid is the standard product

YYY: pressure range in bar (002, 004, 007)

A: absolute pressure measurement

HT: high temperature up to 185C°

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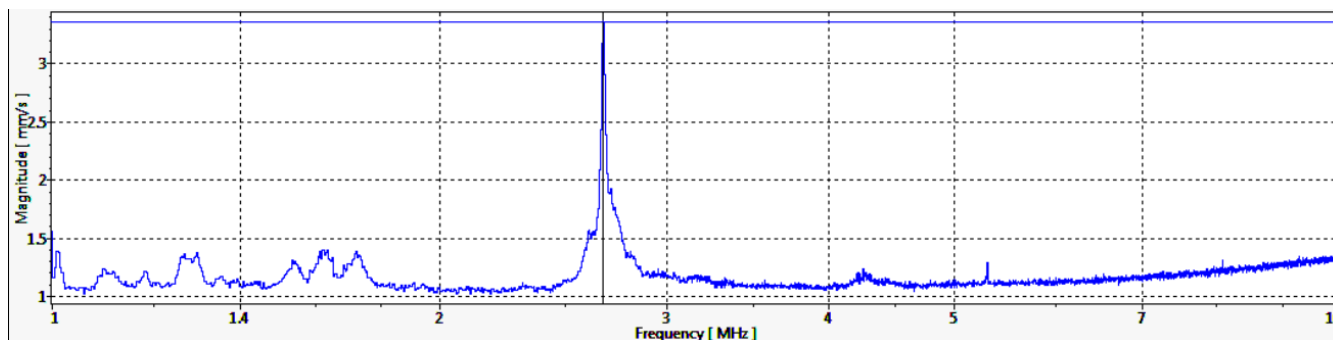


Figure 1: Result for the 30 PSI MEMS absolute pressure sensors



SPECIFICATIONS

| PART NUMBER | MP-1.55-TIG-YYY-A-HT-FLAT |
|-----------------------------|---|
| L x W | 1.55 mm x 3 mm |
| 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 | 185 Celsius |
| Accuracy ³ | 0.25% @ FS |
| Signal amplification | None |

REMARK

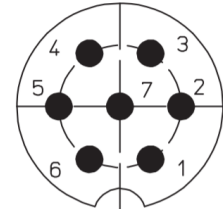
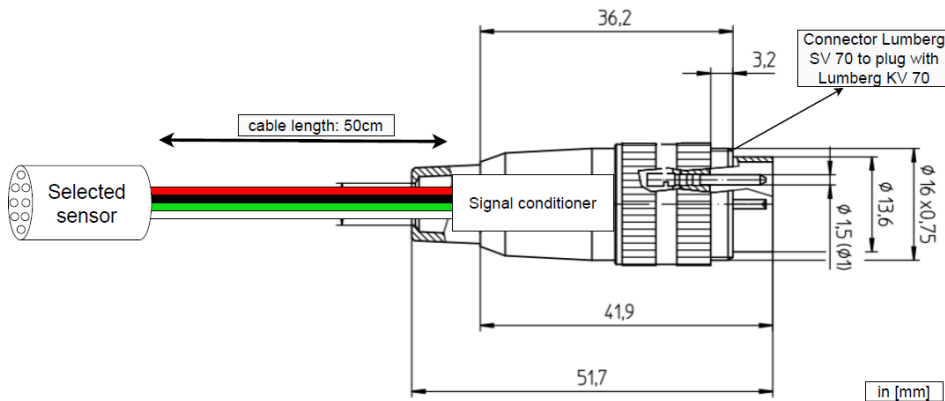
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bar SC-MP-4-XX
Signal conditioner

SENSORADE
Miniaturized aerodynamic flow measurement



| Pin configuration | |
|-------------------|----------|
| Pin | Function |
| Casing S | shield |
| 1 | Vout+ |
| 2 | GND |
| 3 | GND |
| 4 | Vin+ |
| 5 | NC |
| 6 | NC |
| 7 | NC |

SC-MP-4-XX

SC: Signal conditioners
MP: Miniaturized pressure
24: Maximum input voltage in volt
XX: Maximum output voltage in volt (05, 10)

OVERVIEW

- Can be used with our sensor
- Power supply up to 24V
- Output signal up to

SPECIFICATIONS

| Characteristics | Electrical characteristics | |
|-------------------------|----------------------------|-------------|
| PART Number | SC_MP_24_05 | SC_MP_24_10 |
| Supply Voltage | 8-24 VDC | 12-24 VDC |
| Output Voltage | 0-5 VDC | 0-10 VDC |
| Bandwidth | 0-200 kHz | 0-200 kHz |
| Operating temperature | 85 °C | 85 °C |
| Maximum current | 5mA | 5mA |
| Output impedance (1KHz) | 200Ω | 200Ω |