



#### bar

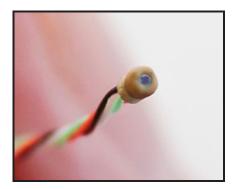
### MP-1.20 ULTRA MINIATURE PRESSURE SENSOR 1,20 mm up to 185C°

# Ultra small pressure sensor for harsh environment High Temperature

#### FEATURES

- Outer diameter 1.2 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 WOT: without tube is the stondard product 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°

#### 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

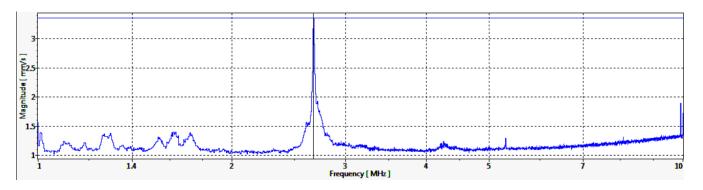


Figure 1: Result for the 30 PSI MEMS absolute pressure sensors





#### SPECIFICATIONS

PART NUMBER	MP-1.20-WOT-YYY-A-ZZ	
Outer diameter	1.2mm	
Pressure range <sup>1</sup>	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 <sup>1</sup>	3 * nominal	
Burst pressure <sup>1</sup>	5* nominal	
Bridge resistance	6.2 kΩ typical / (5-7 kΩ)	
Vout span <sup>4</sup>	100 mV typical / (65-135mV)	
Excitation voltage	5V	
Tmax <sup>2</sup>	100 Celsius (ST) - 185 Celsius (HT)	
Accuracy <sup>3</sup>	0.25% @ FS	
Signal amplification	None	
Fluid	Dry air or inert gas	

#### 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

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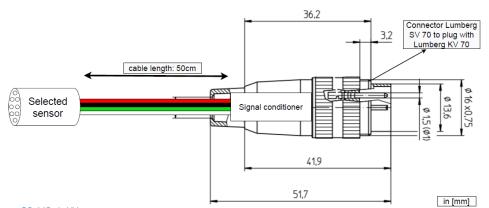
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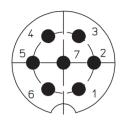




bar SC-MP-4-XX Signal conditioner

SENS ORADE





Pin configuration		
Pin	Function	
Casing S	hield	
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

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