



bar MP-1.55 ULTRA MINIATURE PRESSURE SENSOR
1,55 mm up to 185C°

Very small pressure sensor for harsh environment High Temperature



FEATURES

- 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

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)
 YY: 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

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

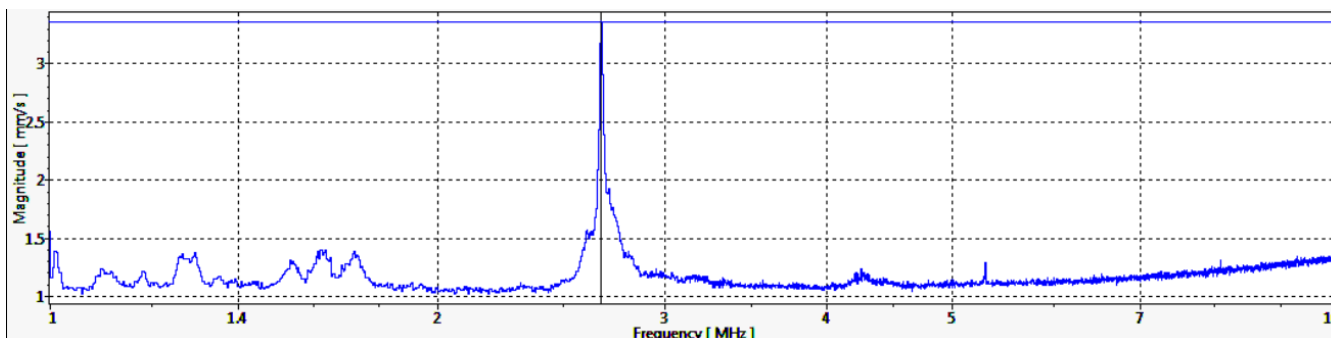


Figure 1: Result for the 30 PSI MEMS absolute pressure sensors



SPECIFICATIONS

PART NUMBER	MP-1.55-XXX-YYY-A-ZZ
Outer diameter	1.55 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 (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 @ 25 C° under a supply voltage of 5 Volt.
- Temperature measurement/compensation available.

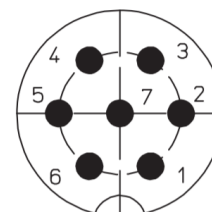
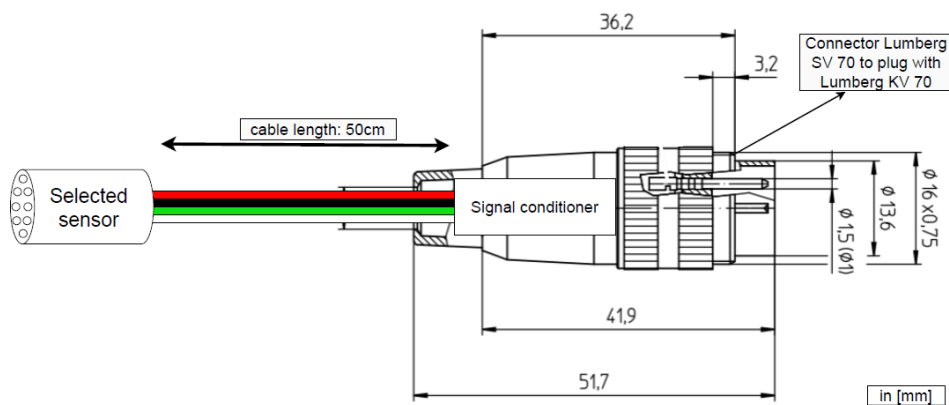
1. Absolute pressure
2. TMCL qualification tests - JEDEC JESD22-A104 « temperature cycling » @ Tmax
3. Accuracy @25 Celsius
4. Amplification can be done for a special request



bar SC-MP-4-XX
Signal conditioner



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

The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.

Althen – Your expert partner in Sensors & Controls | althensensors.com

Althen stands for pioneering measurement and custom sensor solutions. In addition we offer services such as calibration, design & engineering, training and renting of measurement equipment.

Germany/Austria/Switzerland
info@althen.de

Benelux
sales@althen.nl

France
info@althensensors.fr

Sweden
info@althensensors.se

USA/Canada
info@althensensors.com

Other countries
info@althensensors.com