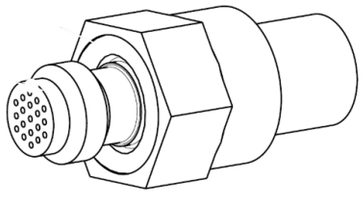
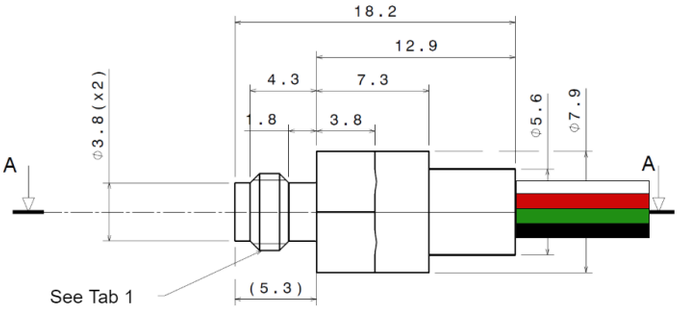
SENSORADE

Miniaturized aerodynamic flow measurement

Very high pressure sensor

3.80 mm up to 185C° MHP-3.80-004-XXX-S-YYYY-A-ZZ





Tab 1	
Type	Value
Metric	M5x0.5
Imperial	10-32 UNF-2A

MODEL DEFINITION

XXX: **SST:** mechanical casing in stainless steel

S: M for metric, I for Imperial

YYYY: pressure range in PSI (1000, 3000)

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

WIRE COLOR CODE

BLACK	Input -
RED	Input +
WHITE	Output -
GREEN	Output +

OVERVIEW

- Outer diameter 3.80 mm
- From 1000 to 3000 psi Absolute pressure sensor
- 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
- …

SENSORADE

Miniaturized aerodynamic flow measurement

PART NUMBER

MHP-3.80-004-XXX-S-YYYY-A-ZZ

Pressure Range	Burst Pressure
0 → 1000 PSI	3000 PSI
0 → 3000 PSI	9000 PSI

Characteristic		Minimum	Typical	Maximum	Unit
Span[4]@ 5V	0 → 1000 PSI	105	125	145	mV
	0 → 3000 PSI	150	180	210	
Zero Offset[1]		-10	0	10	mV/V
Bridge Resistance (RB)		4	5	6	kΩ
Non-linearity[1]		-0.15	0	0.15	% FS
Pressure hysteresis[1]		-0.05	0	0.05	% FS
Operating Temperature[2]		-	-	+185	°C
Max Excitation Voltage		-	5	15	V
TC Sensitivity[3]		-1500	-2200	-2500	PPM/°C
TC Zero Offset[3]		-25	0	25	µV/V/°C
TC Resistance[3]		2300	2800	3300	PPM/°C
Thermal hysteresis[1]		-0.1	0	0.1	% FS

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.
- Conditioning system on request.
- 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

Operational Headquarter: Rue des Ormes 151, B-4800 Lambermont, BELGIUM
TEL: +32 87 70 96 69
Email: sales@sensorade.be