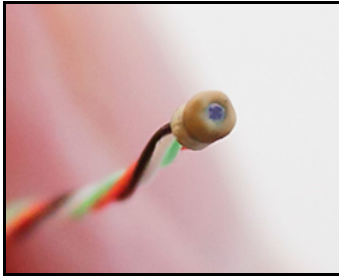


Ultra small pressure sensor for harsh environment High Temperature

1,2 mm up to 185C°

MP-1.20-WOT-YYY-A-ZZ-XX



MODEL DEFINITION

WOT: without tube is the standard product
 YYY: pressure range in PSI (030, 060, 100)
 A: absolute pressure measurement
 ZZ: ST: standard temperature up to 100C°
 HT: high temperature up to 185C°
 XX: 00: Unshielded wires
 01: Shielded wire

WIRE COLOR CODE

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

OVERVIEW

- Outer diameter 1.2 mm
- From 30 to 100 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
- Unshielded wires : UAA-3601-WH/...-BK/...-RD/...-GR
- Or
- Shielded wire: TAU-3607.04
- Wire length: 1m

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.

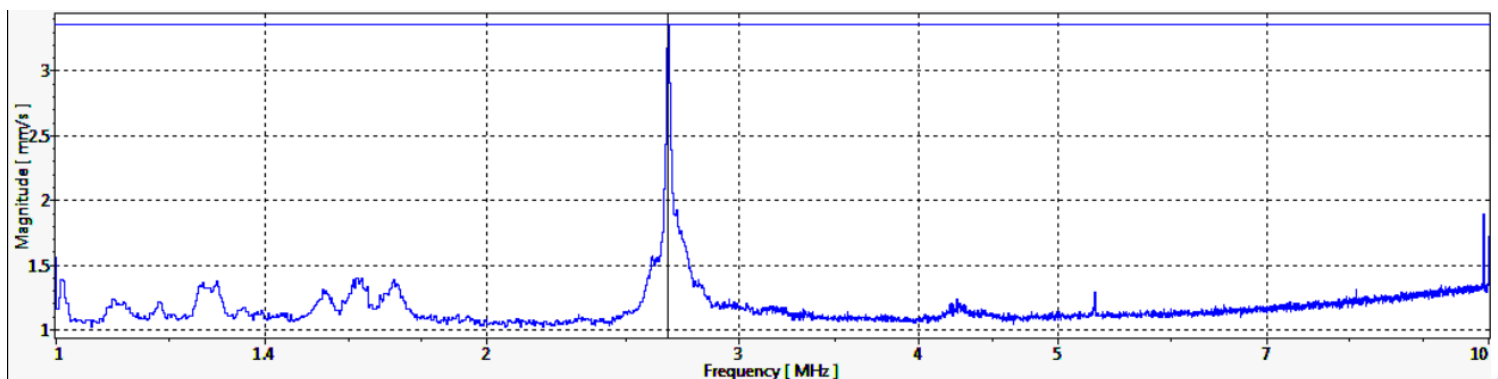


Figure 1: Result for the 30 PSI MEMS absolute pressure sensors

PART NUMBER

MP-1.20-WOT-YYY-A-ZZ-XX

Outer diameter	1.20mm		
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	0.5% @ 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. [See our tutorial on our website.](#)

- 1 | Absolute pressure
- 2 | TMCL qualification tests – JEDEC JESD22-A104
« temperature cycling » @ Tmax
- 3 | @25 Celsius – Please contact us for more information
- 4 | Amplification can be done for a special request

CONTACT

Operational Headquarter: Rue des Ormes 151, B-4800 Lambermont, BELGIUM

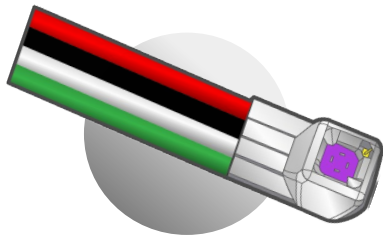
TEL: +32 87 70 96 69

Email: sales@sensorade.be

Ultra small pressure sensor for harsh environment High Temperature - Flat

1,25 mm up to 185C°

MP-1.25-WOT-YYY-A-HT-FLAT-XX



MODEL DEFINITION

WOT : without tube is the standard product

YYY: pressure range in PSI (030, 060, 100)

A: absolute pressure measurement

HT : high temperature up to 185C°

FLAT : flat shape

XX: 00: Unshielded wires

01: Shielded wire

WIRE COLOR CODE

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

OVERVIEW

- W x L x H(max): 1.25mm x 2.45mm*1.5mm
- From 30 to 100 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
- Unshielded wires : UAA-3601-WH/...-BK/...-RD/...-GR

Or

Shielded wire: TAU-3607.04

- Wire length: 1m

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.

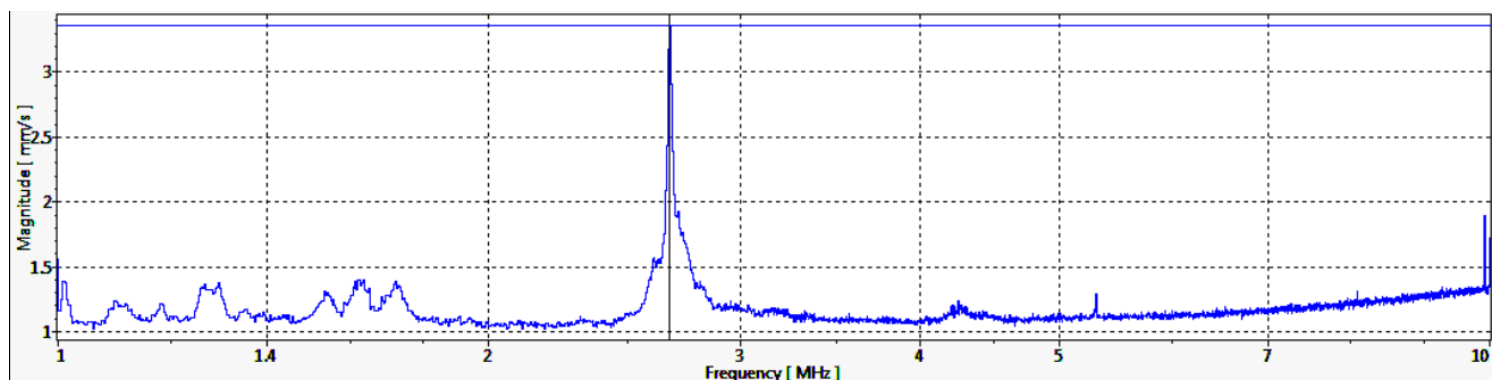


Figure 1: Result for the 30 PSI MEMS absolute pressure sensors

PART NUMBER

MP-1.25-WOT-YYY-A-HT-FLAT-XX

WxL	1.25x2.45mm		
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 (HT)		
Accuracy ³	0.5% @ 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 | @25 Celsius – Please contact us for more information
- 4 | Amplification can be done for a special request

CONTACT

Operational Headquarter: The Labs, Liège Science Park, Rue Bois Saint-Jean 15/1, B-4102 Seraing, BELGIUM

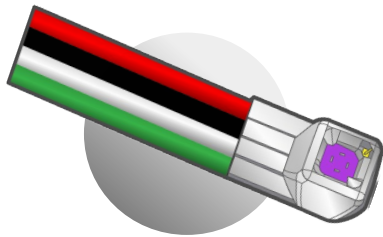
TEL: +32 4 353 30 14

Email: sales@sensorade.be

Ultra small pressure sensor for harsh environment standard Temperature - Flat

1,25 mm up to 100C°

MP-1.25-WOT-YYY-A-ST-FLAT-XX



MODEL DEFINITION

WOT : without tube is the standard product

YYY: pressure range in PSI (030, 060, 100)

A: absolute pressure measurement

ST : standard temperature up to 100C°

FLAT : flat shape

XX: 00: Unshielded wires

01: Shielded wire

WIRE COLOR CODE

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

OVERVIEW

- W x L x H (Max): 1.25mm x 2.45mm x 1.5 mm
- From 30 to 100 psi Absolute pressure sensor
- 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
- Unshielded wires : UAA-3601-WH/...-BK/...-RD/...-GR

Or

Shielded wire: TAU-3607.04

- Wire length: 1m

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.

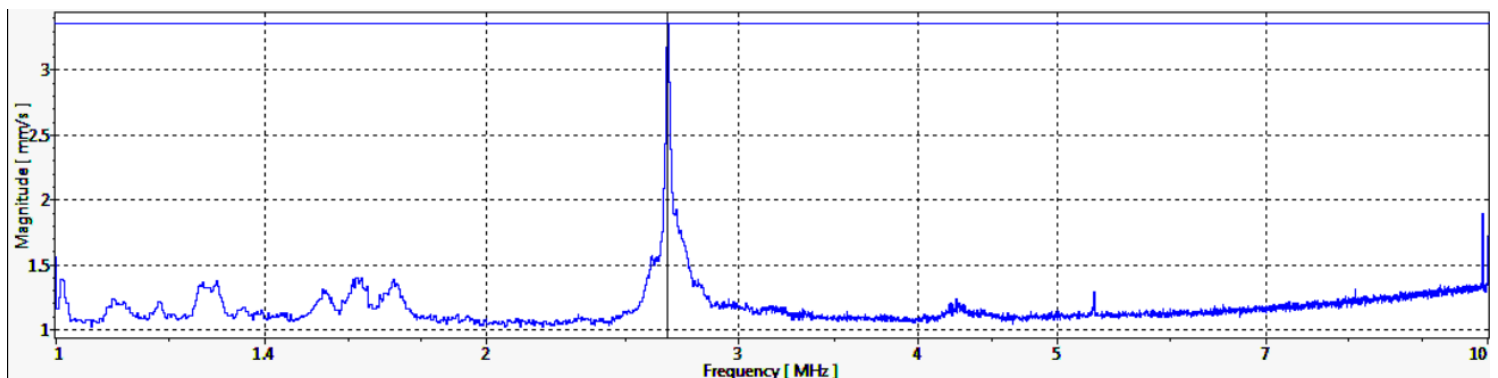


Figure 1: Result for the 30 PSI MEMS absolute pressure sensors

PART NUMBER

MP-1.25-WOT-YYY-A-ST-FLAT-XX

WxL	1.25x2.45mm		
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)		
Accuracy ³	0.5% @ 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 | @25 Celsius – Please contact us for more information
- 4 | Amplification can be done for a special request

CONTACT

Operational Headquarter: Rue des Ormes 151, B-4800 Lambermont, BELGIUM

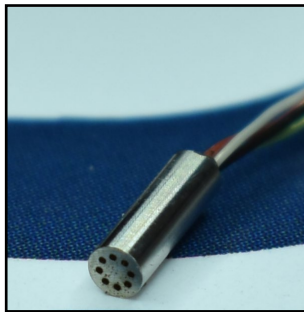
TEL: +32 87 70 96 69

Email: sales@sensorade.be

Very small pressure sensor for harsh environment High Temperature

1,55 mm up to 185C°

MP-1.55-XXX-YYY-A-ZZ-XX



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 PSI (018, 030, 060, 100)
A: absolute pressure measurement
ZZ: ST: standard temperature up to 100C°
 HT: high temperature up to 185C°
XX: 00: Unshielded wires
 01: Shielded wire

WIRE COLOR CODE

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

OVERVIEW

- Outer diameter 1.55 mm
- From 18 to 100 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
- Unshielded wires : UAA-3601-WH/...-BK/...-RD/...-GR
 Or
 Shielded wire: TAU-3607.04
- Wire length: 1m

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.

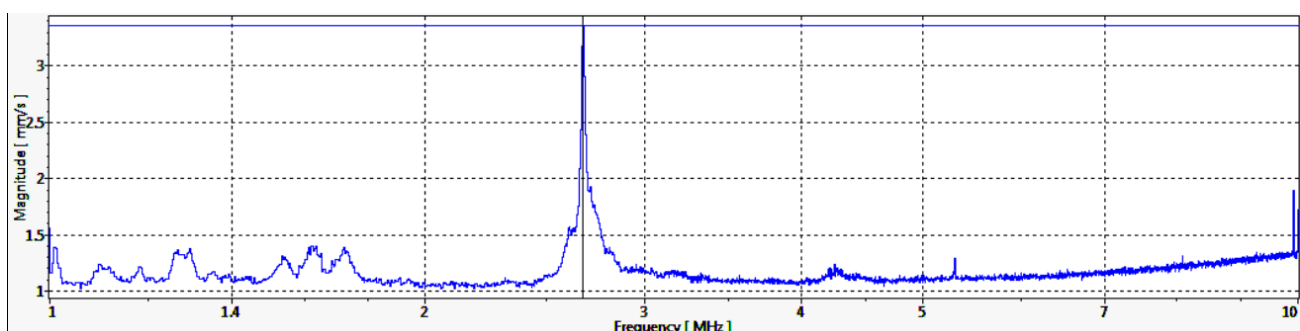


Figure 1: Result for the 30 PSI MEMS absolute pressure sensors

PART NUMBER

MP-1.55-XXX-YYY-A-ZZ-XX

Outer diameter	1.55mm			
Pressure range ¹	0-1.2 bar	0-2 bar	0-4 bar	0-7 bar
	0-18 psi	0-30 psi	0-60 psi	0-100 psi
Max nominal pressure	1.2 bar	2 bar	4 bar	7 bar
	18 psi	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	0.5% @ 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 | @25 Celsius – Please contact us for more information
- 4 | Amplification can be done for a special request

CONTACT

Operational Headquarter: Rue des Ormes 151, B-4800 Lambermont, BELGIUM

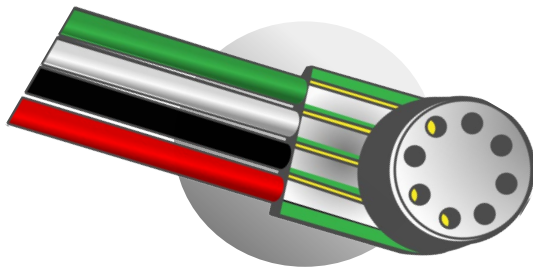
TEL: +32 87 70 96 69

Email: sales@sensorade.be

Very small pressure sensor for harsh environment High Temperature - Flat

1,55 mm up to 185C°

MP-1.55-TIG-YYY-A-HT-FLAT-XX



MODEL DEFINITION

TIG : Inconel tube with grid is the standard product

YYY: pressure range in PSI (030, 060, 100)

A: absolute pressure measurement

HT : high temperature up to 185C°

FLAT : flat shape

XX: **00**: Unshielded wires

01: Shielded wire

WIRE COLOR CODE

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

OVERVIEW

- L x W x H (max): 1.55mm x 3mm x 1.5
- From 30 to 100 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
- Unshielded wires : UAA-3601-WH/...-BK/...-RD/...-GR
- Or
- Shielded wire: TAU-3607.04
- Wire length : 1m

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.

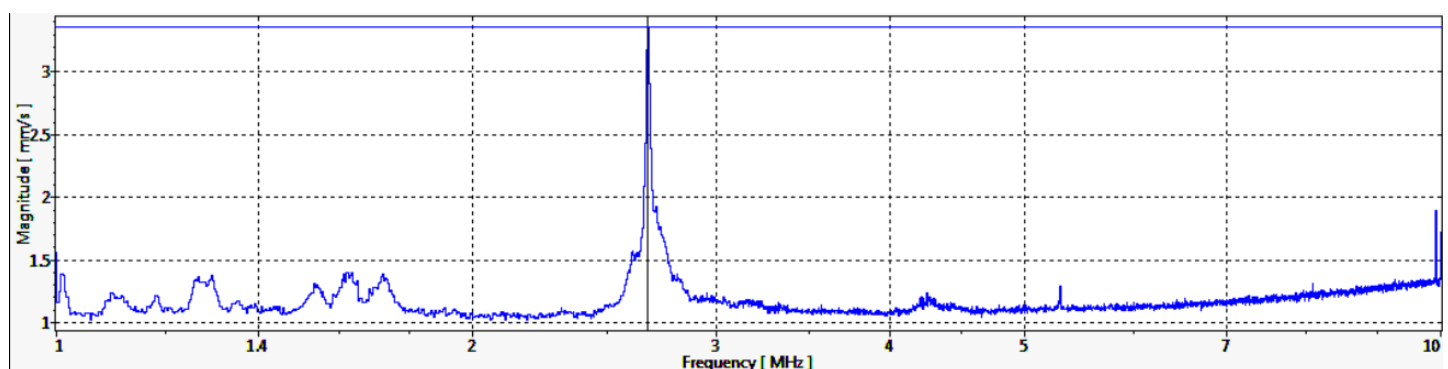


Figure 1: Result for the 30 PSI MEMS absolute pressure sensors

PART NUMBER

MP-1.55-TIG-YYY-A-HT-FLAT-XX

WxL	1.55x3mm		
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 (HT)		
Accuracy ³	0.5% @ 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 | @25 Celsius – Please contact us for more information
- 4 | Amplification can be done for a special request

CONTACT

Operational Headquarter: Rue des ormes 151, B-4800 Lambermont, BELGIUM

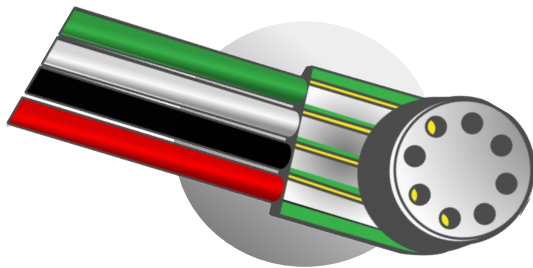
TEL: +32 87 70 96 69

Email: sales@sensorade.be

Very small pressure sensor for harsh environment standard Temperature - Flat

1,55 mm up to 100C°

MP-1.55-TIG-YYY-A-ST-FLAT-XX



MODEL DEFINITION

TIG : Inconel tube with grid is the standard product

YYY: pressure range in PSI (030, 060, 100)

A: absolute pressure measurement

ST : standard temperature up to 100C°

FLAT : flat shape

XX: **00**: Unshielded wires

01: Shielded wire

WIRE COLOR CODE

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

OVERVIEW

- L x W x H: 1.55mm x 3mm X 1.5mm
- From 30 to 100 psi Absolute pressure sensor
- 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
- Unshielded wires : UAA-3601-WH/...-BK/...-RD/...-GR
- Or
- Shielded wire: TAU-3607.04
- Wire length: 1m

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.

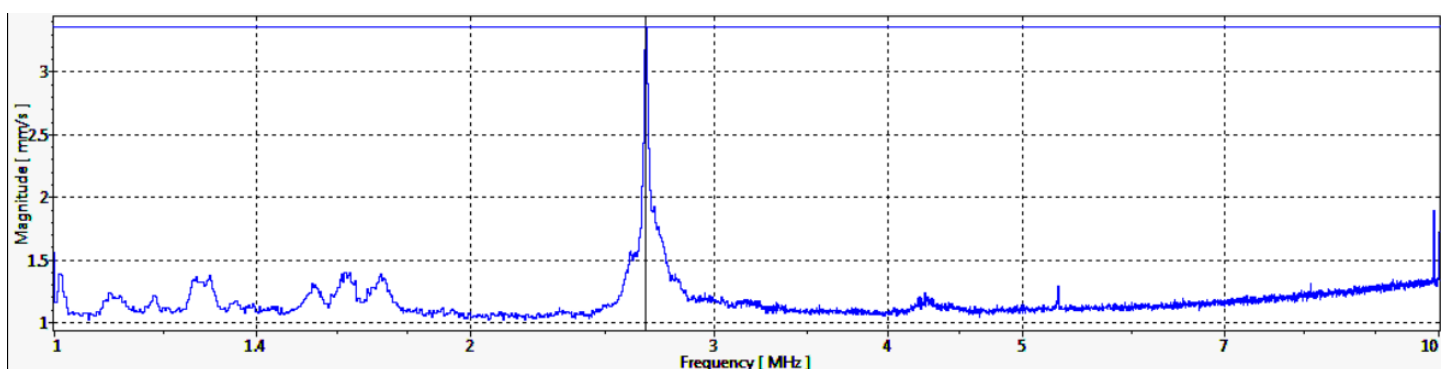


Figure 1: Result for the 30 PSI MEMS absolute pressure sensors

PART NUMBER

MP-1.55-TIG-YYY-A-ST-FLAT-XX

WxL	1.55x3mm		
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)		
Accuracy ³	0.5% @ 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 | @25 Celsius – Please contact us for more information
- 4 | Amplification can be done for a special request

CONTACT

Operational Headquarter: Rue des ormes 151, B-4800 Lambermont, BELGIUM

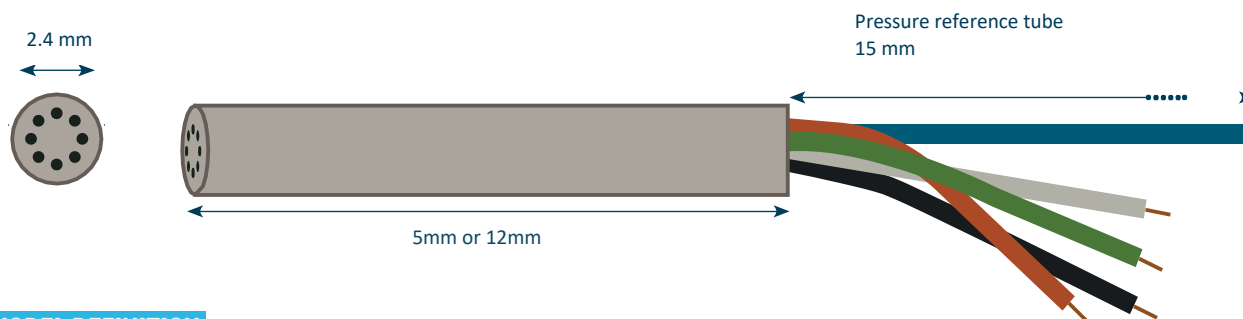
TEL: +32 87 70 96 69

Email: sales@sensorade.be

Miniaturised differential pressure sensor

2,4mm up to 100C°

MP-2.40-TIG-YYY-D-ST-ZZ- XX



MODEL DEFINITION

TIG : Inconel tube with grid is the standard product
YYY : pressure range in psig (005, 015, 030, 080, 150)
D : differential pressure measurement
ST : standard temperature up to 100C°
ZZ : length of the tube (05, 12)
XX : **00**: Unshielded wires
01: Shielded wire

WIRE COLOR CODE

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

FEATURES

- Reduced size : Ø 2.4 mm
- Integrated field shield
- Temperature range : up to 100°C
- Full scale range of 5 to 150 PSI
- Customized solution possible mVolt output
- Highest resonance frequency on the market
- Unshielded wires : UAA-3601-WH/...-BK/...-RD/...-GR
Or
Shielded wire: TAU-3607.04
- Wire length: 1m
- Amplification can be done for a special request

Ideal for dynamic pressure measurement



APPLICATIONS

MEDICAL

- Patient monitor
- Oxygen Concentrators
- Fluid Evacuation

INDUSTRIAL

- Industrial Controls
- Compressors & Pumps
- Oil-Filled Package

AEROSPACE

- Ideal for Wind
Tunnel aerodynamic
measurement

AUTOMOTIVE

- Diesel Particulate Filter
Exhaust Gas Recirculation
Automotive Systems

Resonance frequency

- Highest resonance frequency of 310 KHz of the market
- The tests have been done on a Polytec MSA-500 using Scanning laser-Doppler vibrometry.

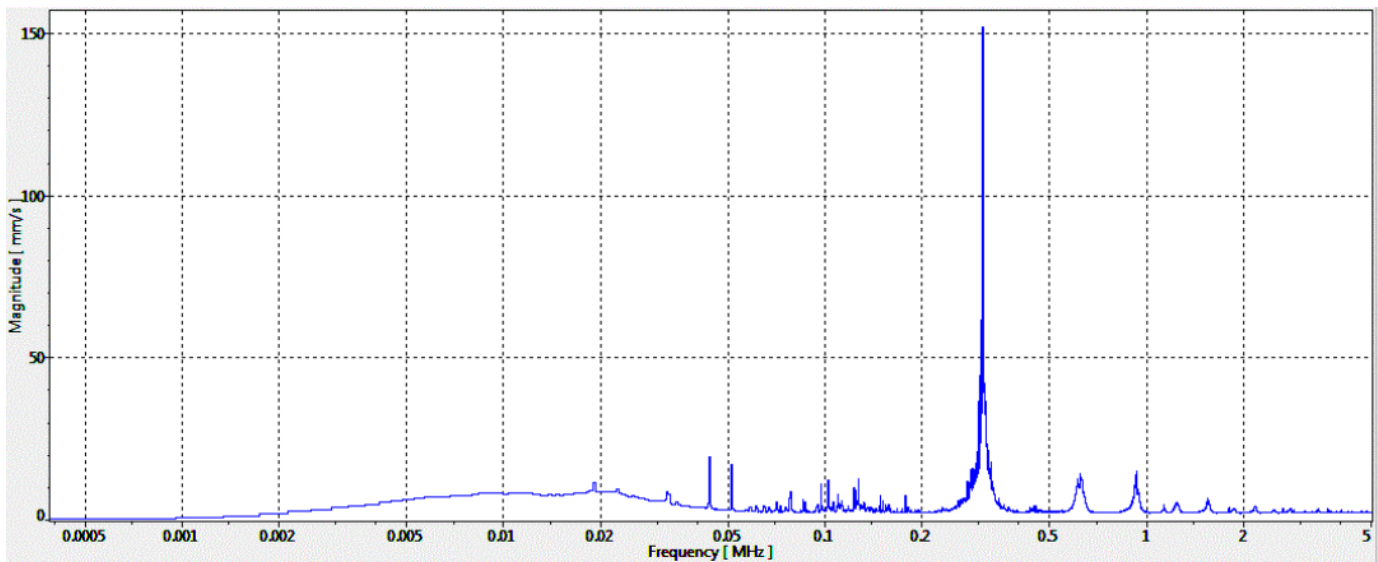


Figure 1: Result for the 30 PSI MEMS differential pressure sensors

Pressure Range	Proof Pressure	Burst Pressure
0 → 5 PSIG	25 PSI	40 PSI
0 → 15 PSIG	45 PSI	75 PSI
0 → 30 PSIG	90 PSI	150 PSI
0 → 80 PSIG	240 PSI	320 PSI
0 → 150 PSIG	300 PSI	450 PSI

Characteristic		Minimum	Typical	Maximum	Unit
Span ⁴	0 → 5 PSIG	60	90	120	mV
	0 → 15 PSIG	55	80	105	
Zero Offset		-45	-10	25	mV
Bridge Resistance (RB)		4	5	6	kΩ
Pressure Hysteresis (d) ¹		-	<±0.1	-	%/FS
Thermal Hysteresis (d,f)		-	<±0.2	-	%/FS
Operating Temperature ²		-		+100	°C
Max Excitation Voltage		-	-	10	V
TC Span ³		-0.24	-0,19	-0.155	%/°C
TC Zero Offset ³		-75	-	75	μV/°C
TC Resistance ³		0.24	0.275	0.33	%/°C
Linearity - Topside ¹		-0.15	<±0.10	0.15	%/FS
Linearity - Backside	5 PSI	-0.3	<±0.2	0.3	%/FS
	15, 30, 80, 150 PSI	-0.15	<±0.10	0.15	

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.
- Frequency > 300 KHz under vacuum condition.
- 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

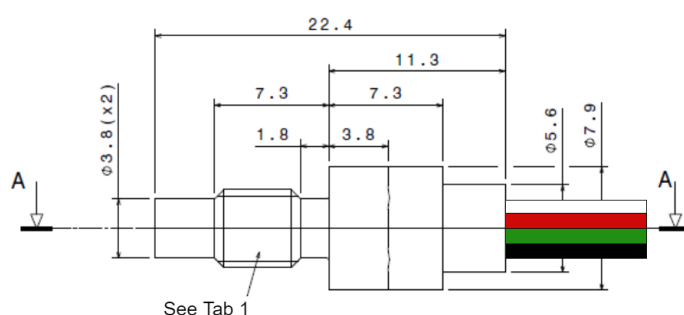
Operational Headquarter: Rue des Ormes 151, B-4800 Lambermont, BELGIUM

TEL: +32 87 70 96 69

Email: sales@sensorade.be

3.80 mm up to 185C°

MHP-001-3.80-XXX-S-YYYY-A-ZZ



MODEL DEFINITION

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

WIRE COLOR CODE	
BLACK	Input -
RED	Input +
WHITE	Output -
GREEN	Output +

- 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
- Shielded wire: TAU-3219.04
- Wire length: 1m

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

PART NUMBER

MHP-001-3.80-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

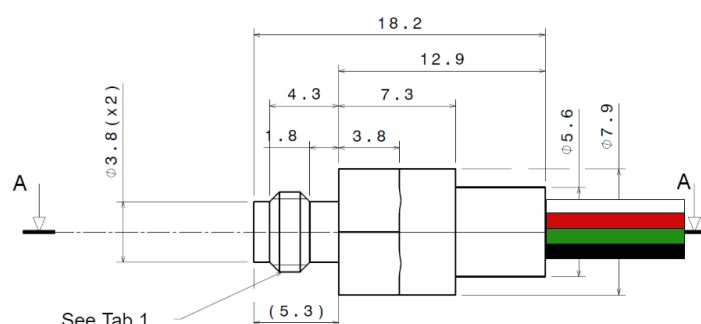
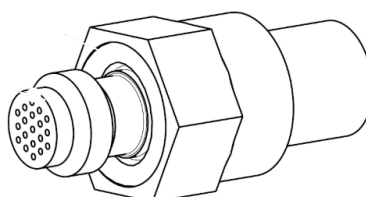
TEL: +32 87 70 96 69

Email: sales@sensorade.be

Very high pressure sensor

3.80 mm up to 185C°

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



See Tab 1

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
- Shielded wire: TAU-3219.04
- Wire length: 1m

APPLICATIONS

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

PART NUMBER

MHP-004-3.80-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

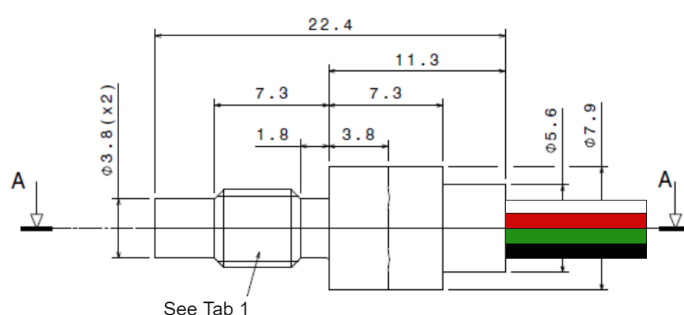
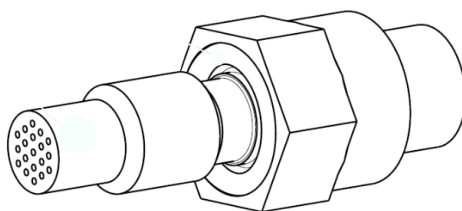
TEL: +32 87 70 96 69

Email: sales@sensorade.be

Miniaturized pressure sensor

3.80 mm up to 185C°

MMP-001-3.80-XXX-S-YYYY-A-ZZ



See Tab 1

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 (0100, 0300)

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 100 to 300 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
- Shielded wire: TAU-3219.04
- Wire length: 1m

APPLICATIONS

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

PART NUMBER

MMP-001-3.80-XXX-S-YYYY-A-ZZ

Pressure Range	Burst Pressure
0 → 100 PSI	300 PSI
0 → 300 PSI	900 PSI

Characteristic		Minimum	Typical	Maximum	Unit
Span ⁴ @5V	0 → 100 PSI	75	100	125	mV
	0 → 300 PSI	75	100	125	
Zero Offset ¹		-10	0	10	mV/V
Bridge Resistance (RB)		4	5	6	kΩ
Non-linearity ¹		-0.2	0	0.2	% FS
Pressure hysteresis ¹		-0.1	0	0.1	% FS
Operating Temperature ²		-	-	+185	°C
Max Excitation Voltage		-	5	10	V
TC Sensitivity ³		-1400	-1900	-2400	PPM/°C
TC Zero Offset ³		-30	0	30	μV/V/°C
TC Resistance ³		2000	2500	3000	PPM/°C
Thermal hysteresis ¹		-0.2	0	0.2	% 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

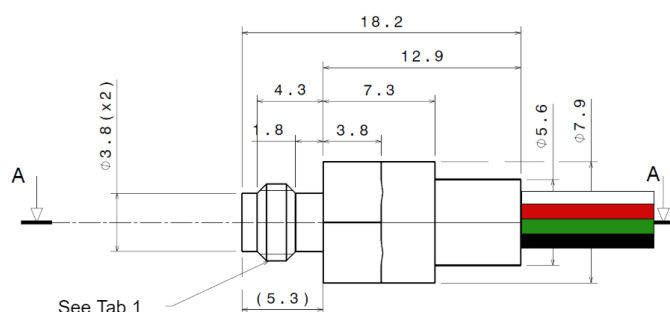
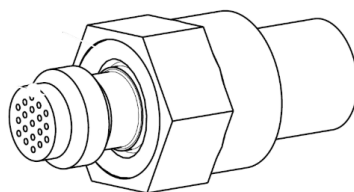
TEL: +32 87 70 96 69

Email: sales@sensorade.be

Miniaturized pressure sensor

3.80 mm up to 185C°

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



See Tab 1

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 (0100, 0300)

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 100 to 300 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
- Shielded wire: TAU-3219.04
- Wire length: 1m

APPLICATIONS

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

PART NUMBER

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

Pressure Range	Burst Pressure
0 → 100 PSI	300 PSI
0 → 300 PSI	900 PSI

Characteristic		Minimum	Typical	Maximum	Unit
Span ⁴ @ 5V	0 → 100 PSI	75	100	125	mV
	0 → 300 PSI	75	100	125	
Zero Offset ¹		-10	0	10	mV/V
Bridge Resistance (RB)		4	5	6	kΩ
Non-linearity ¹		-0.2	0	0.2	% FS
Pressure hysteresis ¹		-0.1	0	0.1	% FS
Operating Temperature ²		-	-	+185	°C
Max Excitation Voltage		-	5	10	V
TC Sensitivity ³		-1400	-1900	-2400	PPM/°C
TC Zero Offset ³		-30	0	30	μV/V/°C
TC Resistance ³		2000	2500	3000	PPM/°C
Thermal hysteresis ¹		-0.2	0	0.2	% 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

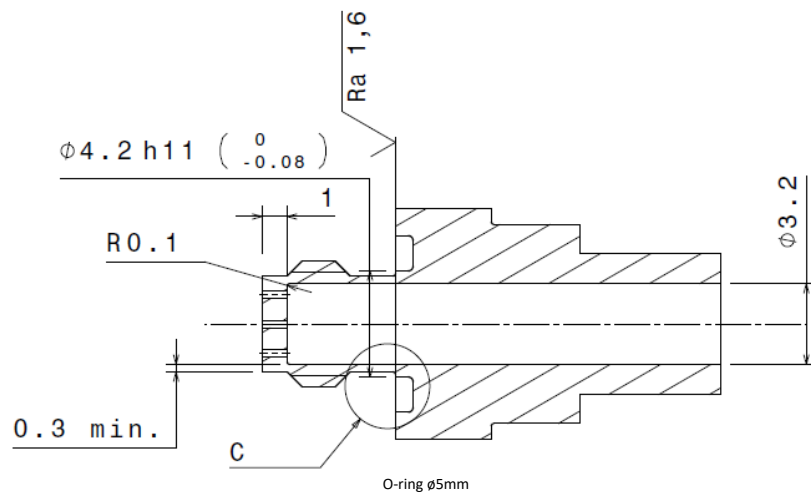
CONTACT

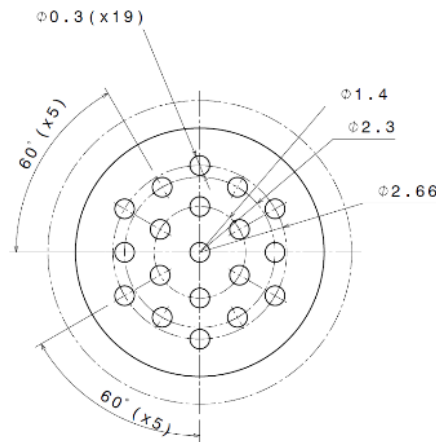
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TEL: +32 87 70 96 69

Email: sales@sensorade.be

Drawing (Version 001 represented)





Unit in mm

Additional Technical information

- O-ring:
 - **Inside diameter / tore:** 5mm / 1mm
 - **Material:** Viton (FKM: fluorinated elastomer)
 - **Temperature range:** -20 to 200°C
 - **Reference:** R 2566
- Maximum applicable torque:
 - 1.6 Nm (14 Lb/In)
- Corrosive fluids:
 - Can be used with brake fluid Dot 5.1 for other fluid please contact SENSORADE (sales@Sensorade)
- Leakage:
 - small leakage can appear
- Shielded wire:
 - TAU-3219.04
 - Length: 1m
- Assignment wire:
 - **Red wire:** V+
 - **Black wire:** V-
 - **White wire:** S-
 - **Green wire:** S+

CONTACT

Operational Headquarter: Rue des Ormes 151, B-4800 Lambermont, BELGIUM

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Email: sales@sensorade.be



Thermal Sensor Compensation Module

1% error – 0-5V – 1kHz Compensation Module

TSC-MP-05-5



MODEL DEFINITION

Sensor input type: 4 wires.

Output type: 3 wires.

Compatible with all MHP/MMP Sensorade pressure sensors.

WIRE COLOR CODE

BLACK	GND
RED	5V
WHITE	Output



Please contact Sensorade for any additional information.

Remark : Sensors will need to be ordered with this compensation device already installed.

OVERVIEW

- Length : 26mm
- Outer diameter : 20mm
- Wide temperature compensation range up to 150°C
- Customized solution possible
- 0-5V output
- Output can be slightly adjusted for special requests
- Compatible with 100 to 3000 psi pressure sensor
- 1ms response time
- Cable: 6.5 mm sheath with 20 AWG wires (80°C Max)
- Wire length: 50cm

APPLICATIONS

- Instrumentation (ie: Automotive, Aviation, ...)
- Aerodynamic testing (ie: Wind tunnel)
- Industrial process monitoring
- Pumps and Compressors
- Leak detection
- Oil and gas
- Biomedical

CONTACT

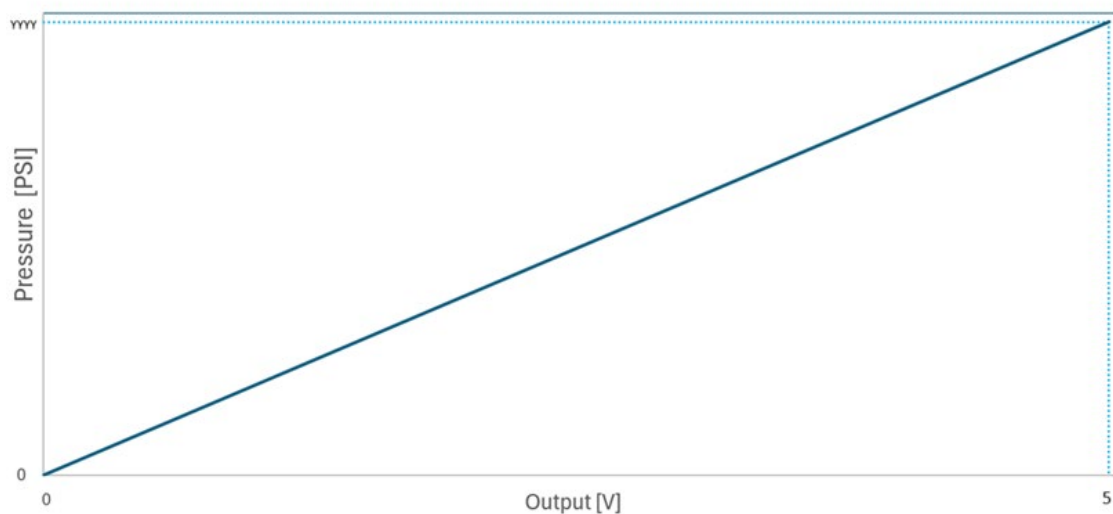
Operational Headquarter: Rue des Ormes 151, B-4800 Lambermont, BELGIUM

TEL: +32 87 70 96 69

Email: sales@sensorade.be

Characteristic	Minimum	Typical	Maximum	Unit
Span ⁴	4.9	4.95	5	V
Zero Offset	-0,5		0,5	% FS
Total error band (On full compensation range)	-1		1	% FS
Accuracy BFS ¹	-0.2		0.2	% FS
Operating Temperature ²	-40		+80	°C
Compensated Temperature ²	+20		+150	°C
Supply Voltage ³	4.5	5	5.5	V
Supply current	2	3	5	mA
Load allowed	>2			kOhm
Startup time	2		5	ms
Response time		1		ms

Compensation Result:



Remarks:

- Unless otherwise specified: All above values are specified @25°C and with a power supply of 5V.
- System can be recalibrated by Sensorade.
- High robustness: Various fluids and dust resistant

1| Accuracy @30 Celsius; 2| TMCL qualification tests – JEDEC JESD22-A104 « temperature cycling » @ Tmax; 3| Output will change if V≠5V;
4| Span can be modified 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

Very high frequency sensor conditioning board

1% error – 250 kHz Signal Conditioning Board

USB-SC-250-C-0X

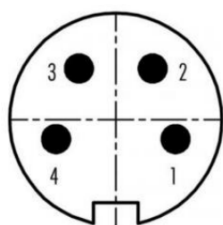


Description

Very high frequency acquisition and compensation board for pressure sensors. It enables precise power supply, temperature compensation, and signal amplification of 2 to 6 sensors. This product is optimized for high frequency acquisition (250 kHz per channel) and can provide data either through USB via the provided software.

INPUT CONNECTION

1	V-
2	V+
3	S-
4	S+



Male connector front view

OVERVIEW

- Dimensions : 220x165x30mm
- Power supply and data : USB Type-C (3.0)
- Sensor output range : -200 to 200 mV
- Number of channels : 2, 4 or 6
- Acquisition frequency : 250kHz/channel
- Only compatible with "C"-rated* Sensors

APPLICATIONS

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

** All sensors have to be ordered with the board connector. Same PartNumber with "C" added.*

CONTACT

Operational Headquarter: Rue des Ormes 151, B-4800 Lambermont, BELGIUM

TEL: +32 87 70 96 69

Email: sales@sensorade.be

Characteristic	Value
Acquisition frequency	Selectable from 1Hz to 250 kHz (1Hz step) for each channel
Differential input voltage	-200 to 200 mV
Input Impedance	>10 GΩ in parallel with 35 pF
Sensor Bridge Resistance (R_{wb})	1 to 10 kΩ
Sensor power supply	5V
Dimensions (L x W x H)	220x165x30mm
Sensor Compensation Temperature*	20° to 185 °C
Power consumption	4.7 W max
Number of channels	2-6
Accuracy [2σ]	1% FS
Supply voltage	5V USB 3.0
Device Operating Temperature	-20 °C to 60 °C
Storage temperature	-20 °C to 70 °C
Optimal warm-up time	15 min

* Can be adapted on demand

Compensation

The board includes a polynomial **temperature compensation model**** compatible with all ordered sensors. This model has the following expression :

$$P(S, R) = a(R_{wb}) \cdot S + b(R_{wb})$$

$$a(R_{wb}) = A + B \cdot R_{wb}, \quad b(R_{wb}) = C \cdot R_{wb}^2 + D \cdot R_{wb} + E$$

Here, S is the sensor differential output signal and R_{wb} is the equivalent bridge resistance value. This model compensates for the pressure drift due to temperature variations up to 185°C. The five compensation coefficients A , B , C , D and E are provided by Sensorade along with the pressure sensor datasheet and can be transmitted by the user via USB interface using the provided software. This method allows users to register up to 250k compensated pressure samples per second for each sensor.

** This model is based on a quasi-static calibration performed on each sensor. The coefficients do not take into account dynamic effects. Refer to the following section for more information.

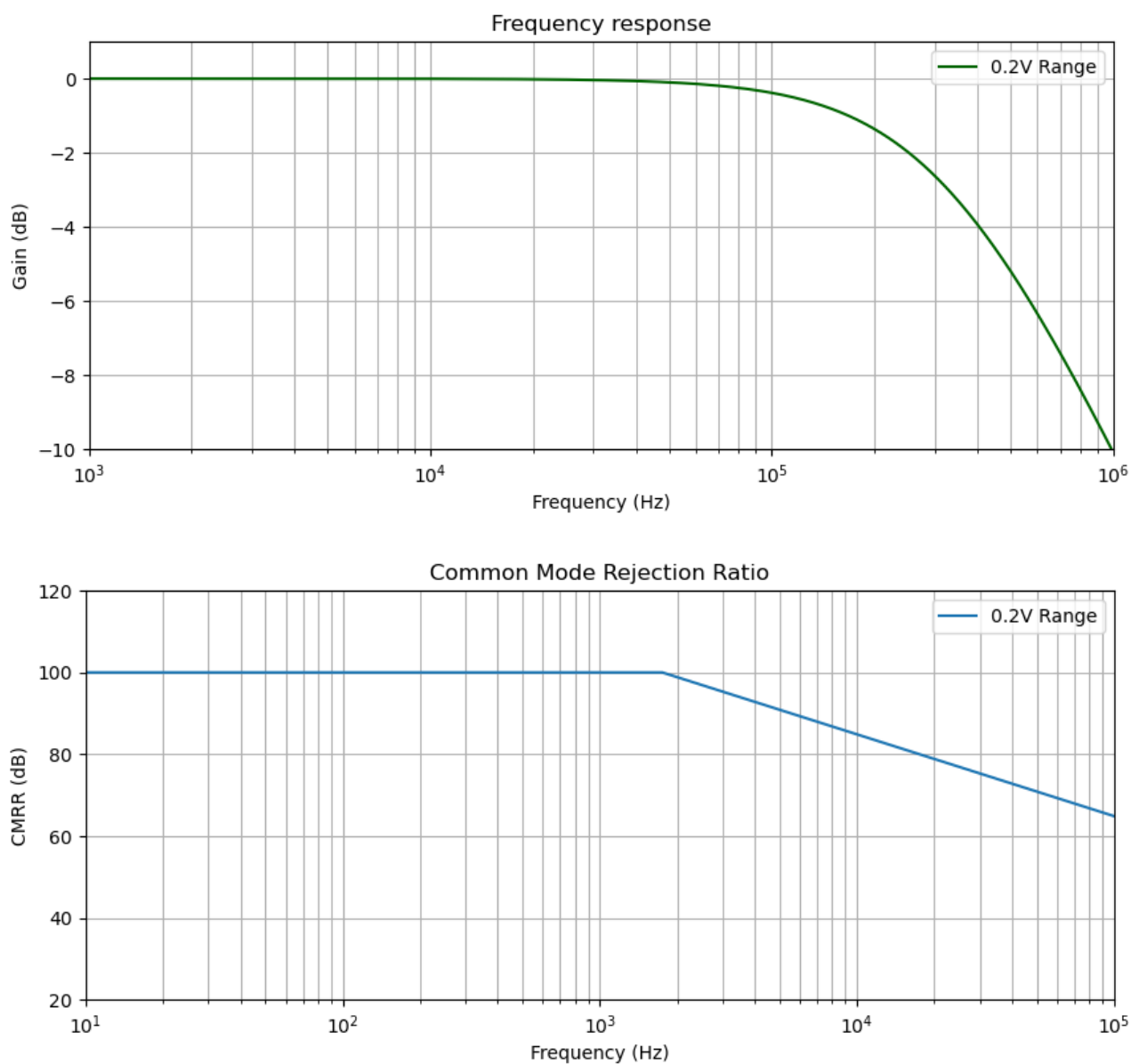
CONTACT

Operational Headquarter: Rue des Ormes 151, B-4800 Lambermont, BELGIUM

TEL: +32 87 70 96 69

Email: sales@sensorade.be

Dynamic efficiency



Remark : The board could be reprogrammed to take a dynamic calibration into account for the compensation of sensors. It would then be the responsibility of the end user to perform this calibration and provide Sensorade with the appropriate transfer function.

CONTACT

Operational Headquarter: Rue des Ormes 151, B-4800 Lambermont, BELGIUM

TEL: +32 87 70 96 69

Email: sales@sensorade.be

User Guide – Data Acquisition & Display Interface

Sensorade Sensor Interface for USB-SC-250-C-0X

Real-time Display & Export

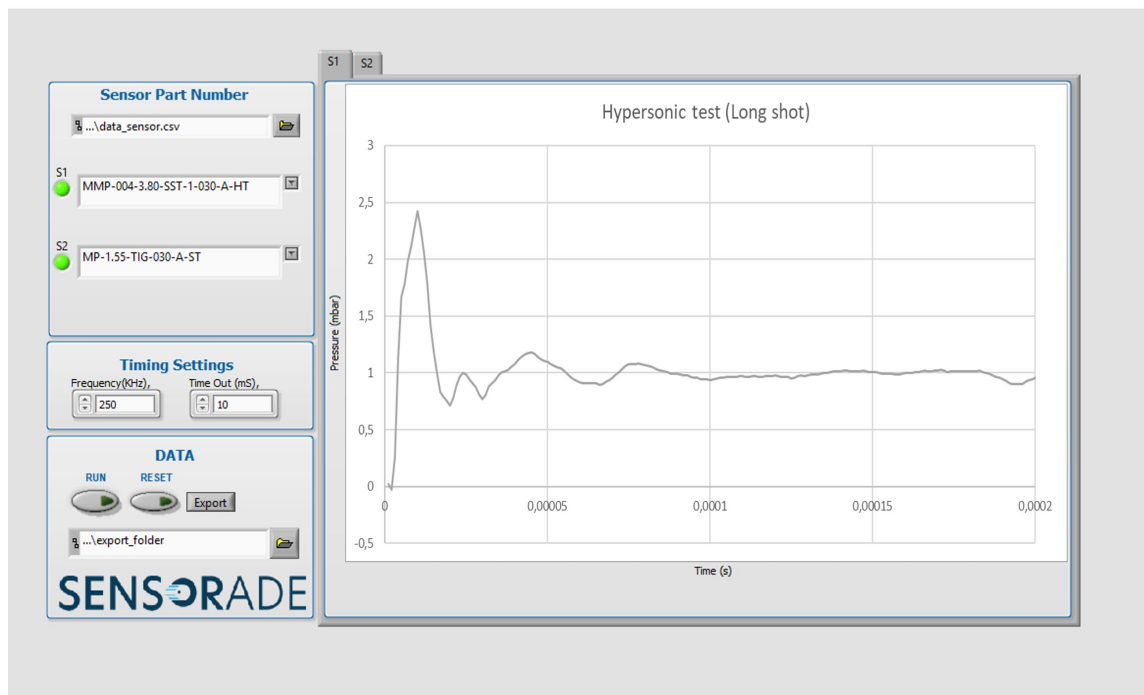


Figure 1 : Example of the application interface (USB-SC-250-C-02)

Description

This application enables real-time data acquisition from one or multiple pressure sensors. The data is displayed live on a waveform graph, and the user can:

- Start or pause acquisition
- Reset the display and internal memory
- Select among **up to 6 different sensors**, depending on the hardware
- And optionally export the acquired dataset to .csv format for further analysis

Note: The number of sensors that can be connected simultaneously depends on the Sensorade hardware model:

- **USB-SC-250-C-02** supports up to **2 sensors**
- **USB-SC-250-C-04** supports up to **4 sensors**
- **USB-SC-250-C-06** supports up to **6 sensors**

System Requirements

Minimum requirements

- Windows 10 or later (recommended)
- Compatible Sensorade acquisition device (USB-SC-250-C-0X)
- At least one Sensorade pressure sensor connected

Software Dependencies

- The compiled executables (.exe)

Note: All files, driver and dependencies will be provided by Sensorade with the **USB-SC-250-C-0X**

CONTACT

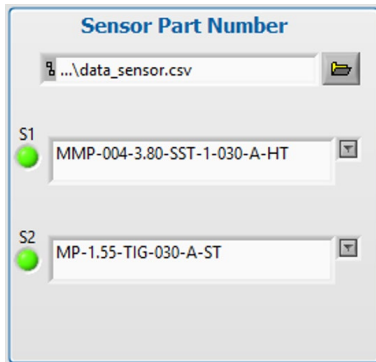
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TEL: +32 87 70 96 69

Email: sales@sensorade.be

Interface Overview

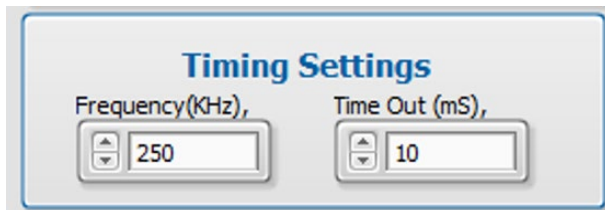
Sensor Selection:



► **File Selection Button:** Opens a dialog to import the sensor data file provided by Sensorade (CSV format)

► **Sensor Dropdown List:** Allows the user to select one of up to six sensors for real-time display

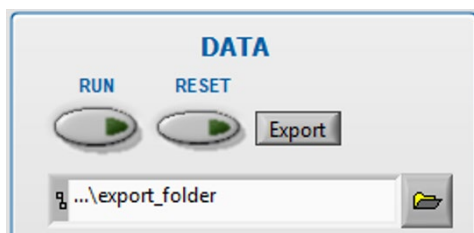
Timing settings:



1 -> **Acquisition Rate (kHz):** Set the frequency of data acquisition in kilohertz (kHz) (1Hz to **250 kHz**)

2 -> **Session Time out (ms):** Duration of the record in milliseconds. The application will stop automatically when the time is reached.

Run / Export:



1 -> **RUN Button:** Starts or pauses data acquisition

2 -> **RESET Button:** Clears the graph and resets stored data.

3 -> **Select Folder Button:** Opens a folder dialog to choose the destination for CSV data export

4 -> **Export Button (optional):** Saves the current dataset to a CSV file in the selected folder

CONTACT

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Email: sales@sensorade.be

How to Use

Using the compiled executable (.exe)

1. Download the executable file.
2. Run the executable application directly.

(Note: This requires LabVIEW Runtime Engine and Drivers installed. The need to install these depends on the executable features and installer package.)

Using the Application

Hardware Connection:

- Check the hardware connection (make sure the sensor is properly plugged in).

Sensor:

- Import the sensor data file provided by Sensorade in CSV or compatible format (data_sensor.csv).
- Select the sensor you want to use from the dropdown list.

Note: A green indicator light confirms that the sensor is properly connected but does not guarantee that it is the correct model (it only checks that the compensated pressure is within the sensor's measurement range).

Acquisition:

- Before starting, set the Timeout (in milliseconds) and the Frequency (in kHz) using the numeric controls provided.
- Click RUN to start acquisition.
- The session will automatically stop after the specified timeout duration.
- Click RESET to clear the graph and reset data.

(Optional) Save:

- Select the folder where you want to store the exported CSV files.
- Click EXPORT to save the recorded data as a .csv file.

CONTACT

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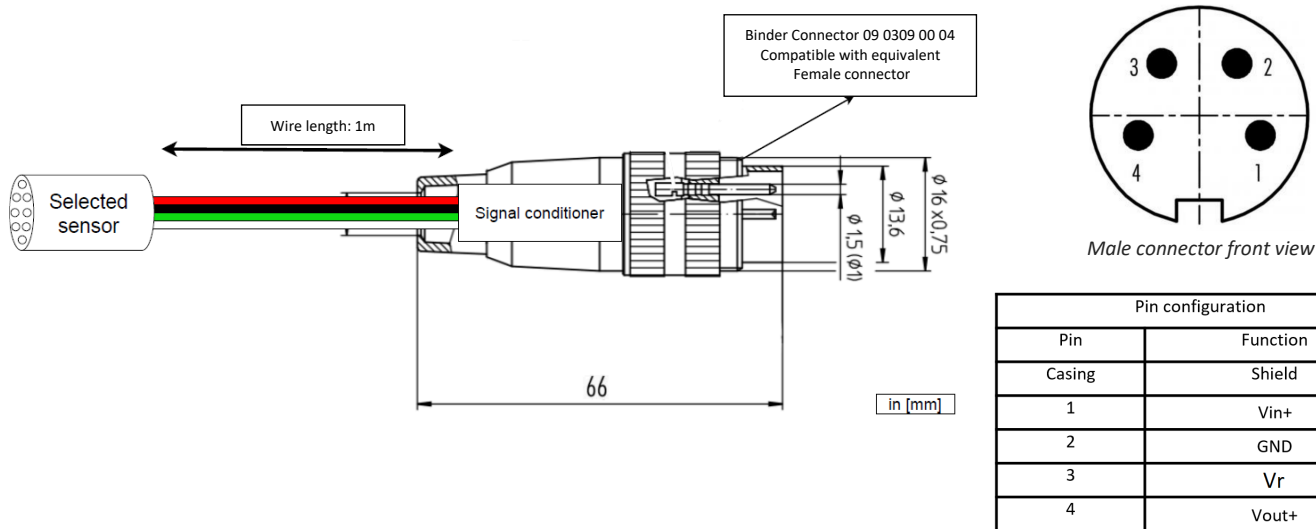
TEL: +32 87 70 96 69

Email: sales@sensorade.be

Signal conditioner

Up to 10V amplification

SC_MP_24_XX_4PIN



MODEL DEFINITION

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 10V
- Shielded wire for MMP and MHP: TAU-3219.04
- Shielded wire for others : TAU-3607.04
- Wire length: 1m

PRODUCT SPECIFICATION

Characteristics	Electrical characteristics	
PART Number	SC_MP_24_05_4PIN	SC_MP_24_10_4PIN
Supply Voltage	12-24 VDC	12-24 VDC
Max Output Voltage	5 VDC	10 VDC
Bandwidth	0-100 kHz	0-100 kHz
Operating temperature	85 °C	85 °C
Maximum current	20mA	20mA

Remark:

- The selected sensors are available on our website. [See our tutorial on our website.](#)

CONTACT

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