



bar

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

Very High Pressure Sensor-/Miniaturized pressure sensor 3.80 mm up to 180C°

SENSORADE
Miniaturized aerodynamic flow measurement

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

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

XXX: SST: mechanical casing in stainless steel

S: M for metric, I for Imperial

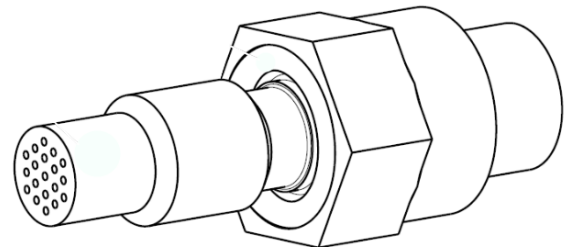
YYYY: pressure range in PSI (0005,0030,0100, 0300)

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



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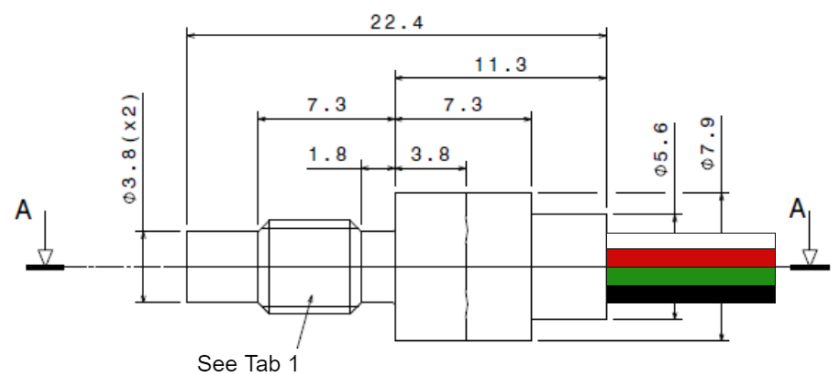
YYYY: pressure range in PSI (1000, 3000)

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

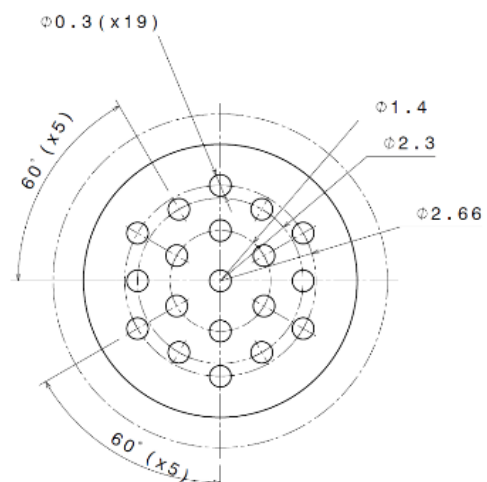


FEATURES

- Outer diameter 3.80 mm
- From 0,35 to 207 Bar 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
- ...



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 Althen

Leakage:

- small leakage can appear

Assignment wire:

- Red wire: V+ - Black wire: V-
- White wire: S- - Green wire: S+

SPECIFICATIONS

PART NUMBER

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

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

Charac teri stic		Minimum	Typical	Maximum	Unit
Span ⁴ @ 5V	0 → 1000PSI	105	125	145	mV
	0 → 3000PSI	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.
- 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



SPECIFICATIONS

PART NUMBER

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

Pressure Range	Burst Pressure
0 → 5 PSI	15 PSI
0 → 30 PSI	90 PSI
0 → 100 PSI	300 PSI
0 → 300 PSI	900 PSI

Charac teri stic		Minimum	Typical	Maximum	Unit
Span ^{4@} 5V	0 → 5 PSI	75	100	125	mV
	0 → 30 PSI	75	100	125	
	0 → 100 PSI	75	100	125	
	0 → 300PSI	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

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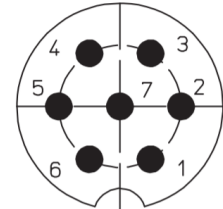
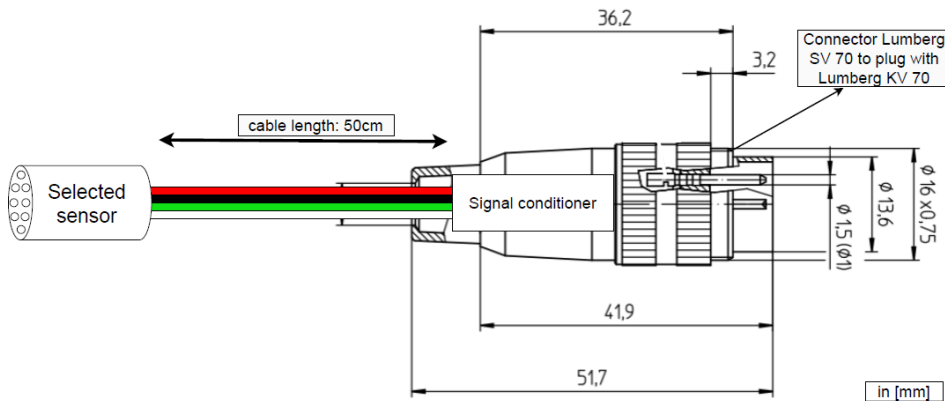
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SC_MP_24_XX Signal conditioner

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_24_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.

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