P125 High pressure sensor

- **Ranges from 2000 to 7000 bar**
- **Stainless steel**
- **Robust for Fatigue testing**
- **High level output in option**
- **For static and dynamic applications**
- **Linearity up to ±0.3% F.S.**

DESCRIPTION

The **P125** is a high pressure transducer designed for to measure static and dynamic pressure up to 7 000 bar (600 kpsi). The mechanical design and a stainless steel construction allow the sensor to withstand most aggressive liquids and fatigue testing.

The sensing element is fitted with a temperature compensated Wheatstone bridge equipped with thin strain gauges. MEAS offers amplified analogue versions to obtain 0.5-4.5V, 0-5V and 4-20mA.

For miniature with flush diaphragm designs, the model **XPM6** can measure up to 1 000 bar (15 kpsi)

With many years of experience as a designer and manufacturer of sensors, Measurement Specialties, Inc. has the expertise to customize and/or design sensors for specific uses and testing environments. To meet your needs we also offer complete turnkey systems. Our conditioning electronics can power the sensor, amplify the electronic signal, and display the data digitally. A turnkey measurement system arrives with matched components, formatted, calibrated and ready for your immediate use.

CARACTERISTIQUES

- M16x1.5 thread for high pressure junction
- Analogue Tension and Current outputs
- For Static and Dynamic Applications

APPLICATIONS

- Burst pressure test benches
- Pressure amplifier equipment
- Tube testing

ETENDUES DE MESURE

Full Scale (FS)		Pressure Reference Gauge	Combined Linearity & Hysteresis (%FS)
Bar	**psi**		
2k	30k	•	± 0.5%
4k	60k	•	± 0.5%
7k	100K	•	± 0.5%

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TEMPERATURE CHARACTERISTICS

Full Scale (FS)		Operating Temperature Range (OTR)		Compensated Temperature Range (CTR)		ZeroShift in CTR	Sensitivity Shift in CTR
Bar	psi	Celcius	Farenheit	Celcius	Farenheit	/50°C	/50°C
2k	30k	-20 to 80°C	0 to 170°F	0 to 60°C	32 to 140°F	< ±2%FS	< ±3%
4k	60k	|	|	|	|	|	|
7k	100K	|	|	|	|	|	|

MECANICAL CHARACTERISTICS

Full Scale (FS)		Pressure limit		Tightening Torque	
Bar	psi	Without damage	Without destruction	N.m	lbf.in
2k	30k	1,5x FS	3x FS	30	265
4k	60k	1,5x FS	3x FS	30	265
7k	100K	1,2x FS	2x FS	45	400

Notes

1. Material: Body in stainless steel; housing in aluminium alloy.
2. Protection Index: IP65 with cable gland, IP50 with connector output
3. Electrical Termination: cable gland with Ø5 mm shielded cable with 4 wires, standard length 2.0 m [6.6 ft]

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ELECTRICAL CHARACTERISTICS (All values are typical at temperature 20±1ºC)

NON AMPLIFIED VERSION

Full Scale (FS) Bar	Full Scale (FS) Psi	Frequency resonnance	Power supply	Full Scale Output (FSO)	Offset	Input Impedance Ze	Output Impédance Zs
2k	30k	TBD	10 Vdc	20 mV	< ±10mV	1500 Ω	500 Ω
4k	60k	TBD	|	|	|	1500 Ω	500 Ω
7k	1K	TBD	|	|	|	1000 Ω	500 Ω

Note

1. Output impedance standard, available <100Ω on request.

AMPLIFIED VERSION A1

Full Span (FS) Bar	Full Span (FS) Psi	Bandwidth	Power supply	Full Scale Output [1] (FSO)	Offset	Consumption	Output Impédance Zs[2]
All ranges		3 kHz	10 to 30 Vdc	4 ±0.2V	0.5 ±0.2V	25 mA	1 000 Ω

AMPLIFIED VERSION A2

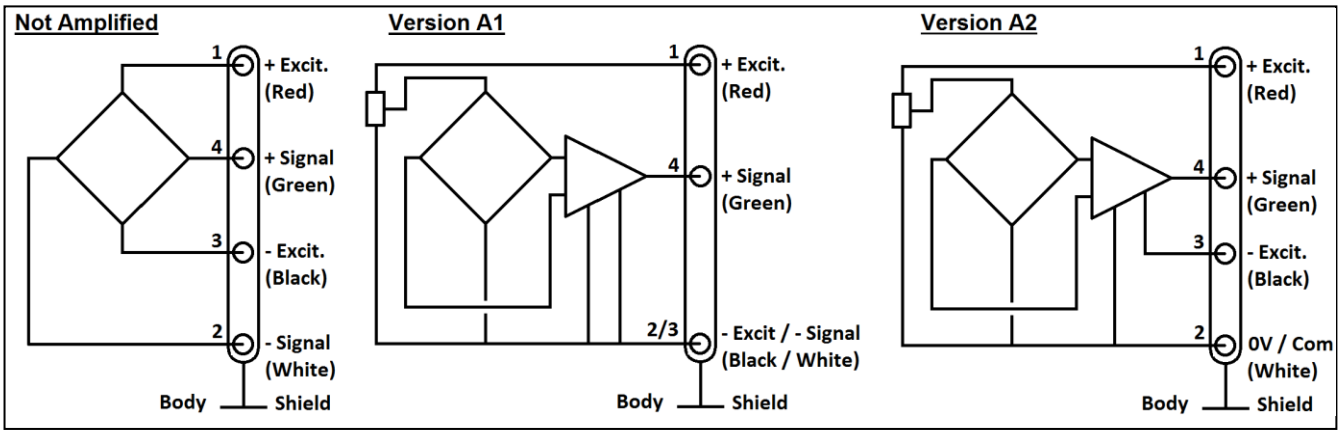
Full Span (FS) Bar	Full Span (FS) Psi	Bandwidth	Power supply	Full Scale Output [1] (FSO)	Offset	Consumption	Output Impédance Zs[2]
All ranges		3 kHz	±12 to ±18 Vdc	5 ±0.25V	±0.25V	25 mA	1 000 Ω

AMPLIFIED VERSION A3[4]

Full Span (FS) Bar	Full Span (FS) Psi	Bandwidth	Power supply	Full Scale Output (FSO)	Offset	Consumption	Output Impédance Zs
All ranges		3 KHz	10 to 26 Vdc	16 ±0.3mA	4 ±0.3mA	Up o 20 mA	-

Notes

1. Standard output signal, custom outputs available on request.
2. Output impedance standard, available <100Ω on request.
3. Insulation under 50Vdc ≥100MΩ
4. A3 current output is a two wires version
5. CE conformance according to EN 61010-1, EN 50081-1, EN 50082-1.



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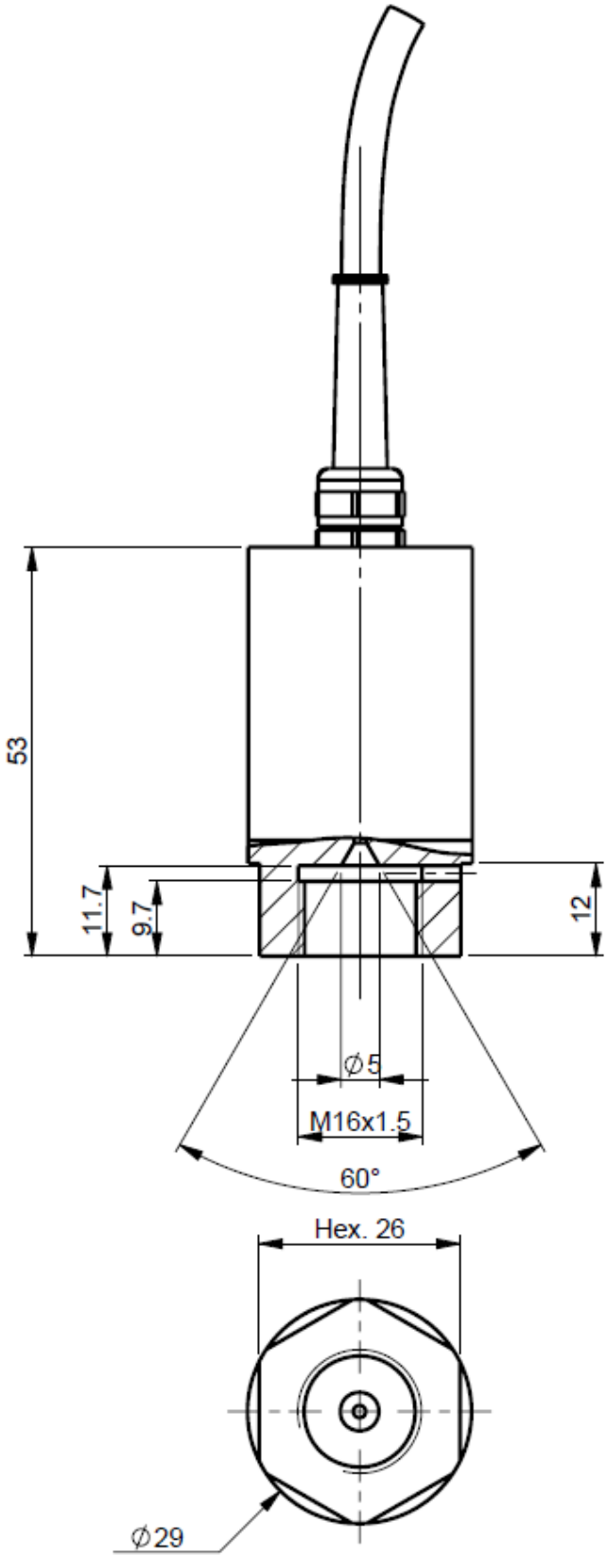
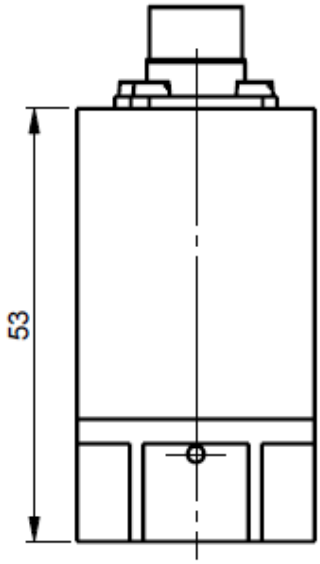
DIMENSIONS (METRIC)





Version SC

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OPTIONS

A1 : Unipolar Tension power ; 0,5-4,5V output
A2 : Bipolar Tension power ; 0-5V output
A3 : Unipolar Tension power ; 4-20mA output
SC : Connector output, mating plug Jaeger ref. 4b 533 801 supplied
L00M : special cable length, replace “00” with total length in meters

ORDERING INFORMATION

P125 - A1 - 2000 B - /L5M

Options (L00M, SC..)

Pressure limit
B : bar

Full Scale

With or without amplification
None : without (mV)
A1 : with amplifier (0,5 – 4,5 V)
A2 : with amplifier (0 – 5 V)
A3 : with amplifier (4-20 mA)

Model

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