

## FEATURES

- ◆ M16x1.5 high pressure port
- ◆ Metal / metal screw sealing
- ◆ Integrated Amplifier optional
- ◆ Heavy duty body

## APPLICATIONS

- ◆ Burst pressure test benches
- ◆ Fatigue test benches
- ◆ Laboratory and research
- ◆ Pressure amplifier equipment

## P125

### High Pressure Sensor

#### SPECIFICATIONS

- ◆ Ranges from 2000 to 7000 bar (30k to 100k psi)
- ◆ Stainless steel pressure port
- ◆ Robust for Fatigue testing
- ◆ For static and dynamic applications
- ◆ Linearity up to  $\pm 0.3\%$  F.S.

The **P125** is a high pressure transducer designed for to measure static and dynamic pressure up to 7 000 bar (100 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. TESS 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 a manufacturer of sensors, TE CONNECTIVITY often works with customers to design or customize sensors for specific uses and testing environments.

On request, Instruction documents can be provided to ease the selection and use of our sensors and provide helpful tips.

**P125**

High pressure sensor

**STANDARD RANGES**

Ranges (FS)		Pressure Reference Gauge	Combined Linearity & Hysteresis (%FS)
Bar	psi		
2k	30k	↑	± 0.5%
4k	60k	↑	± 0.5%
7k	100K	↑	± 0.5%

**TEMPERATURE CHARACTERISTICS**

Ranges (FS)		Operating Temperature Range (OTR)		Compensated Temperature Range (CTR)		ZeroShift in CTR /50°C	Sensitivity Shift in CTR /50°C
Bar	psi	Celcius	Farenheit	Celcius	Farenheit		
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						

**MECHANICAL CHARACTERISTICS**

Ranges (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]

**ELECTRICAL CHARACTERISTICS (All values are typical at temperature 23±3°C)**

**NON AMPLIFIED VERSION**

Ranges (FS)		Frequency resonance	Power supply	Sensitivity (FSO)	Zero Offset	Input Impedance Ze	Output Impédance Zs
Bar	Psi						
2k	30k	TBD	10 Vdc	2 mV/V	< ±1mV/V	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**

Ranges (FS)		Bandwidth	Power supply	Sensitivity <sup>1</sup> (FSO)	Zero Offset	Consumption	Output Impédance Zs <sup>2</sup>
Bar	Psi						
All ranges		3 kHz	10 to 30 Vdc	4 ±0.2V	0.5 ±0.2V	25 mA	1 000 Ω

**AMPLIFIED VERSION A2**

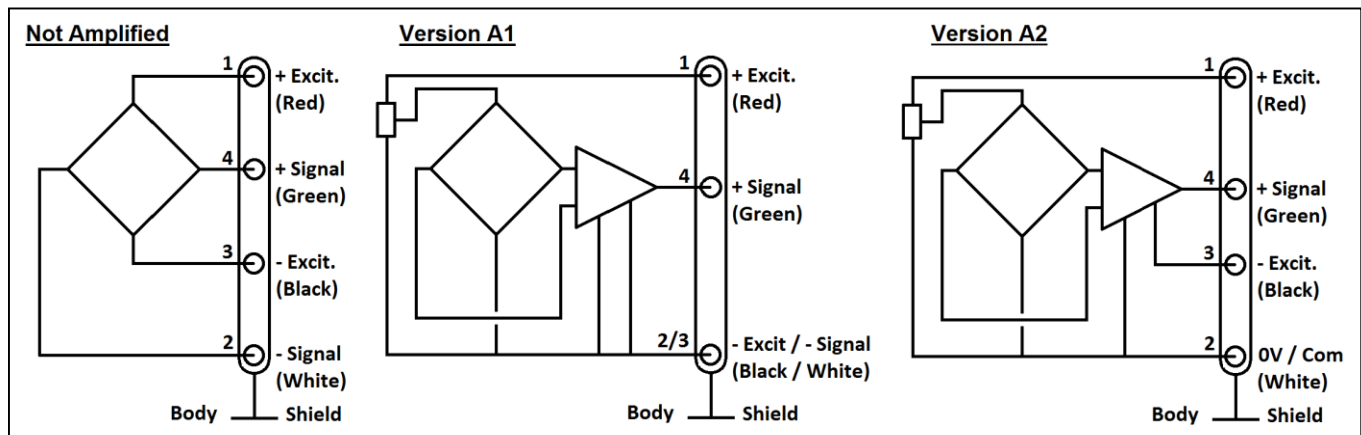
Ranges (FS)		Bandwidth	Power supply	Full Scale Output <sup>1</sup> (FSO)	Zero Offset	Consumption	Output Impédance Zs <sup>2</sup>
Bar	Psi						
All ranges		3 kHz	10 to 30 Vdc	4 ±0.2V	0.5 ±0.2V	25 mA	1 000 Ω

**AMPLIFIED VERSION A3<sup>4</sup>**

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

**Notes**

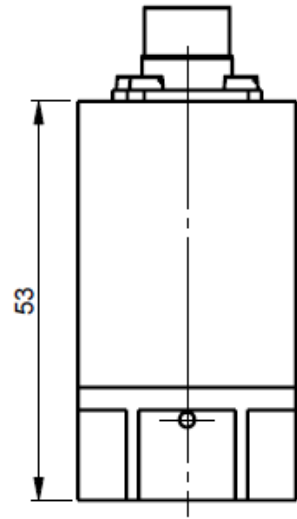
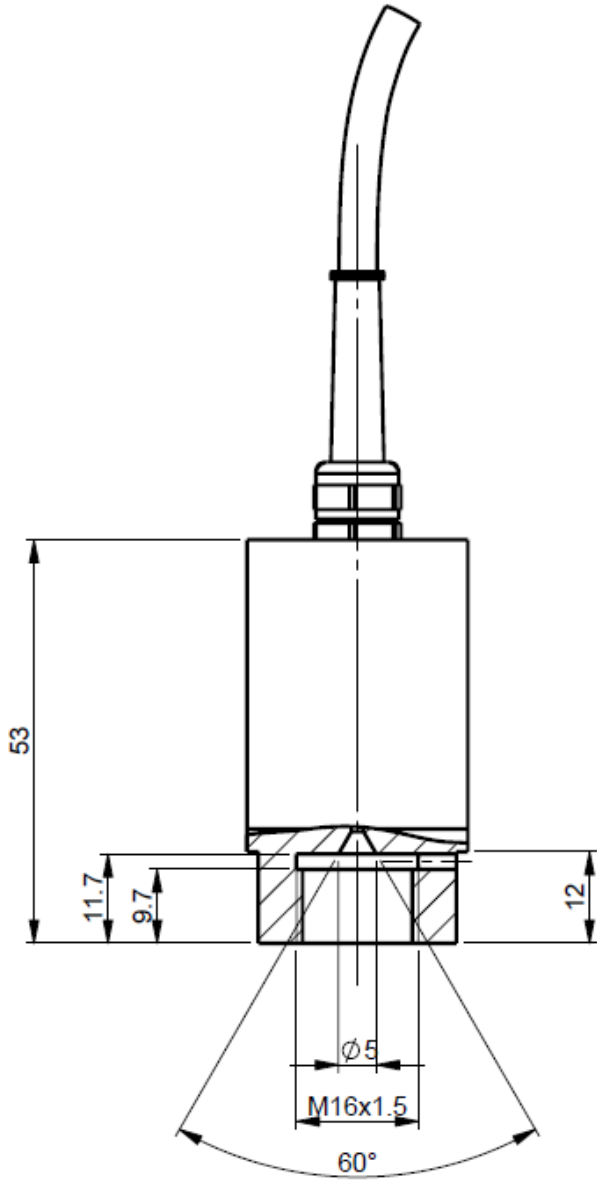
- Standard output signal, custom outputs available on request.
- Output impedance standard, available <100Ω on request.
- Insulation under 50Vdc ≥100MΩ
- A3 current output is a two wires version
- CE conformance according to EN 61010-1, EN 50081-1, EN 50082-1.



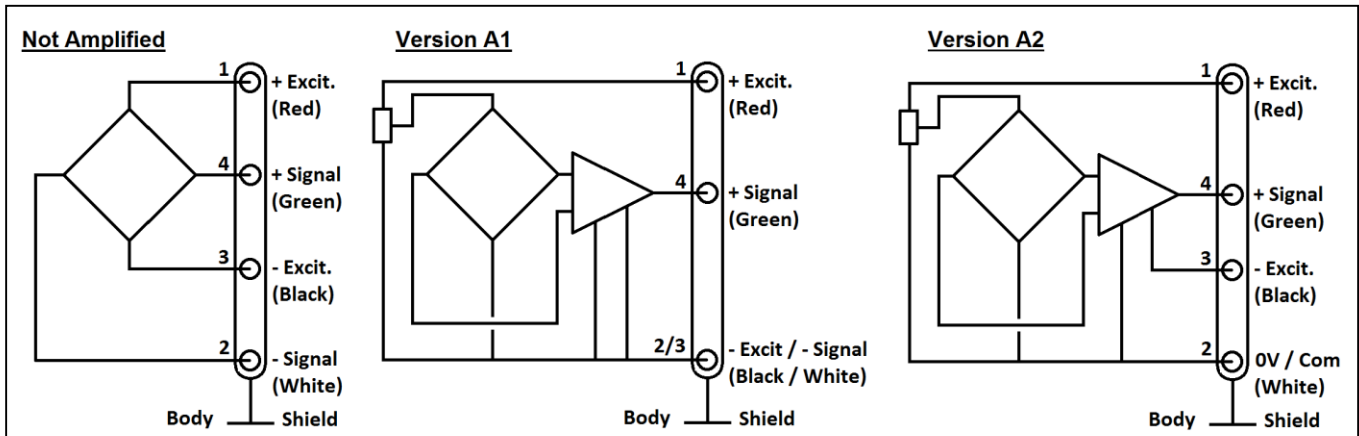
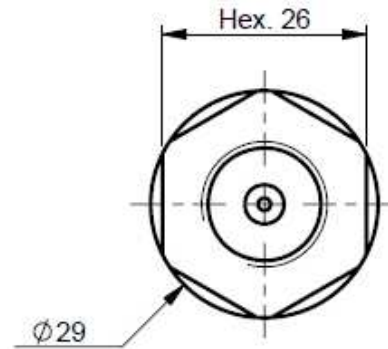
**P125**

High pressure sensor

**DIMENSIONS (METRIC ONLY)**



Version SC



## P125

High pressure sensor

### OPTIONS

<b>SC</b> : Connector output
<b>L00M</b> : special cable length, replace "00" with total length in meters

### ORDERING INFORMATION

<b>P125</b>	-	<b>A1</b>	-	<b>2KB</b>	<b>G</b>	-	<b>/L4M</b>
Model	-	Electrical interface	-	Ranges & unit	Pressure Reference	-	/Options
<b>P125</b>	-	(empty) = bridge mV/V <b>A1</b> = 0.5 to 4.5V <b>A2</b> = 0-5V <b>A3</b> = 4-20mA	-	<b>2KB</b> <b>4KB</b> <b>7KB</b>	<b>G</b> = Gage	-	<b>/ETX</b> <b>/SC</b> <b>/L00M</b>

The sensor ordering codes uses only bar as units because **P125** uses metric threads. Psi value correspondence is noted as information

### SUPPLIED ACCESSOIRES (ONLY WITH SC OPTION)

<b>EFMX-4M</b> : mating plug Jaeger 530-801-006 with clamp 530-841-006 standard with SC option
<b>EFMX-4H</b> : mating plug Jaeger 530-804-006 with clamp 530-844-006 for ET1, ET2 or ET3 & SC options

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