

High Performance Miniature Pressure Sensor



Features

- ➔ Available with Built in Electronic
- ➔ All Stainless steel
- ➔ Operating from -40 to +125°C
- ➔ High Performance

Applications

- ➔ Automotive - on vehicle
- ➔ Aerospace
- ➔ Military
- ➔ Test benches

The PGP160 series is designed for high accuracy absolute or gage pressure measurements, from -1 up to 600bar. The sensing element is an advanced piezo-resistive pressure module which together with the latest compensation techniques, provides high performance measurements. It is available with low (millivolt) or high level outputs (0,5-4,5Vdc ou 0-5Vdc). For transducers, the built-in electronic delivers a dynamic analogue output, signal's bandwidth being specified at a minimum of 1kHz @-3dB. With all stainless steel wetted parts, the sensor is compatible with most media used in industry, even corrosive ones. High accuracy embedded pressure measurements are main focus for the PGP160 series.

Technical specifications

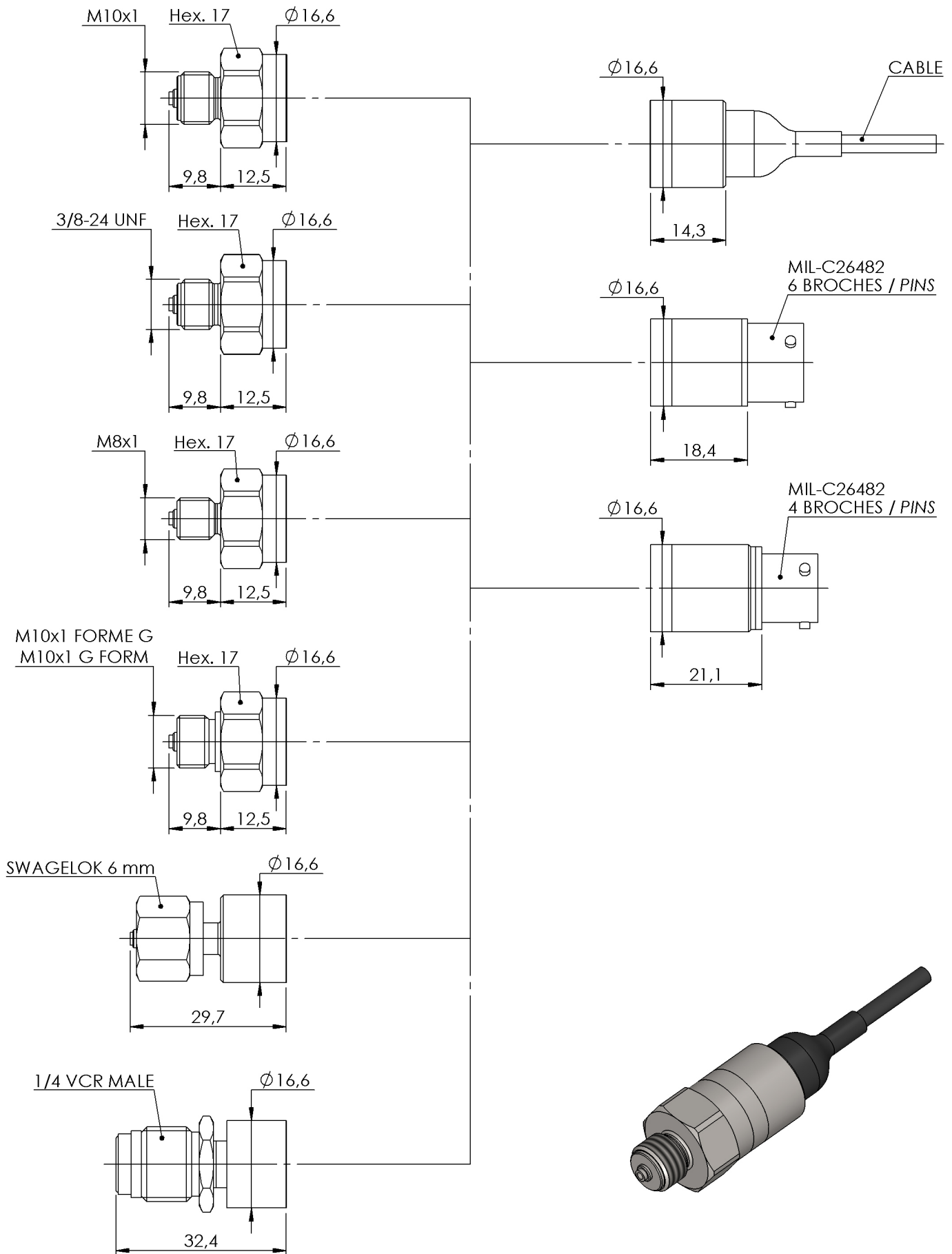
Pressure ranges (FS)	-1/+2bar ; -1/+5bar ; 3bar ; 5bar ; 10bar ; 20bar ; 40bar ; 100bar ; 250bar ; 400bar ; 600bar ; -14.5/+30PSI ; -14.5/+70PSI ; 8000PSI ; 40PSI ; 70PSI ; 150PSI ; 300PSI ; 500PSI ; 1500PSI ; 3000PSI ; 5000PSI
Type	Absolute ; Gage
Type (for ranges > 40 bar)	Sealed Gage
Safe overload	150% FS
Burst pressure	300% FS
Power supply	8 to 16Vdc
Consumption	< 10mA
Insulation	> 1000 MOhms under 50Vdc at ambient temperature
Output at -100%FS (only for ± range)	0.5Vdc
Output at 0%FS (except ranges ±)	0.5Vdc
Output at 100%FS	4.5Vdc
Zero and sensitivity settings tolerances	±50mV

Technical Specifications

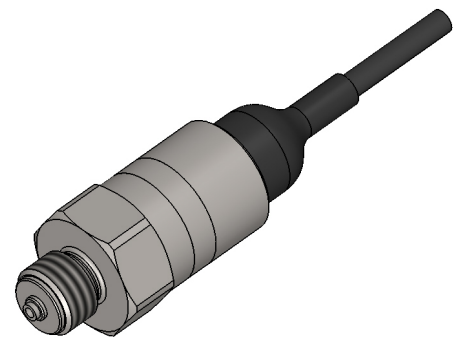
Non linearity and hysteresis combined	±0.1% FS Option : ±0.05% FS
Non repeatability	±0.02% FS typ.
Signal bandwidth	1000Hz @ -3dB Option : Special Adjustment up to 3000Hz @ -3dB
Compensated temperature range	0 to +60°C Option : -25 to +85°C ; -25 to +125°C
Operating temperature range	-40 to +125°C
Combined thermal zero & sensitivity shifts	±0.01% FS/°C
Constant acceleration in linear vibrations	± 0.02% FS/g (frequency 20-2000Hz, 50g max.)
Mechanical shock	100g ½ sinus 1ms
Electrical protection	Protected against polarity inversion
EMC protection	Compliant to EN61000
Electrical connection	AWG26, Viton Jacketed Shielded Cable Ø3mm, 4 wires Option : Hermetic MIL-C-26482 - 6 pins Receptacle ; Hermetic MIL-C-26482 - 4 pins Receptacle
Mechanical connection	3/8-24 UNF-3A male ; M10x1-4h male Option : 1/4" VCR male ; M10x1 male form G Minimes® ; M8x1-6g male ; Swagelok nut SS-6M2-1 for OD 6mm pipe
Material(s) of wetted parts	Stainless Steel 316L ; Stainless Steel 17-4PH ; Stainless steel 15-5PH
Weight	30g without cable
Enclosure protection	IP65 for absolute & sealed gage version

Codification

High Performance Miniature Pressure Sensor	PGP16	7	S	10bar	A	02	03	A	2	2	B
Output Signal											
0.5-4.5Vdc unregulated power supply		7									
Material											
Stainless Steels			S								
Range											
Example				10bar							
Type											
Absolute					A						
Gage					G						
Sealed Gage					SG						
Mechanical connection											
M10x1-4h male						02					
M8x1-6g male						03					
3/8-24 UNF-3A male						11					
Swagelok nut SS-6M2-1 for OD 6mm pipe						15					
M10x1 male form G Minimess®						16					
1/4" VCR male						22					
Electrical connection											
Hermetic MIL-C-26482 - 6 pins Receptacle							03				
AWG26, Viton Jacketed Shielded Cable Ø3mm, 4 wires							08/1m				
Hermetic MIL-C-26482 - 4 pins Receptacle							14				
Compensated temperature range											
0 to +60°C								A			
-25 to +85°C								B			
-25 to +125°C								C			
Non linearity and hysteresis combined											
±0.1% FS									2		
±0.05% FS									4		
Combined thermal zero & sensitivity shifts											
±0.01% FS/°C										2	
Options											
Special Adjustment up to 3000Hz @ -3dB											B



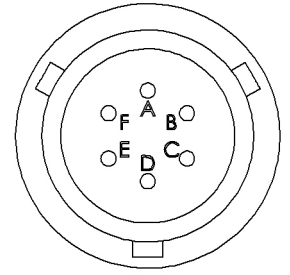
DIMENSIONS : mm



MIL-C26482 - 6 PINS



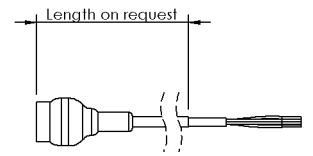
VOLTAGE OUTPUT	PIN
+ EXCITATION	PIN A
+ SIGNAL	PIN B
0 VOLT	PIN C
0 VOLT	PIN D
SENSOR HOUSING	PINS E & F



#26 AWG, 4 CONDUCTOR SHIELDED VITON CABLE



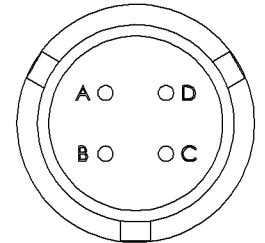
VOLTAGE OUTPUT	CONDUCTOR
+ EXCITATION	RED
+ SIGNAL	GREEN / YELLOW
NC	WHITE
0 VOLT	BLUE / BLACK
SENSOR HOUSING	SHIELD



MIL-C26482 - 4 PINS



VOLTAGE OUTPUT	PIN
+ EXCITATION	PIN A
+ SIGNAL	PIN C
NC	PIN D
0 VOLT	PIN B
SENSOR HOUSING	CONNECTOR HOUSING



Agent :



E.F.E.
 L'ESSOR FRANCAIS ELECTRONIQUE
 16 Rue Porte a Bateaux - 27540 Ivry-la-Bataille - FRANCE
 Tel : 33 (0)2 32 22 35 05 - Fax : 33 (0)2 32 36 93 08
www.efc-sensor.com - infos@efc-sensor.com