L'Essor Français Electronique

PGP161

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 vehicule
- Aerospace
- Military
- Test benchs

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

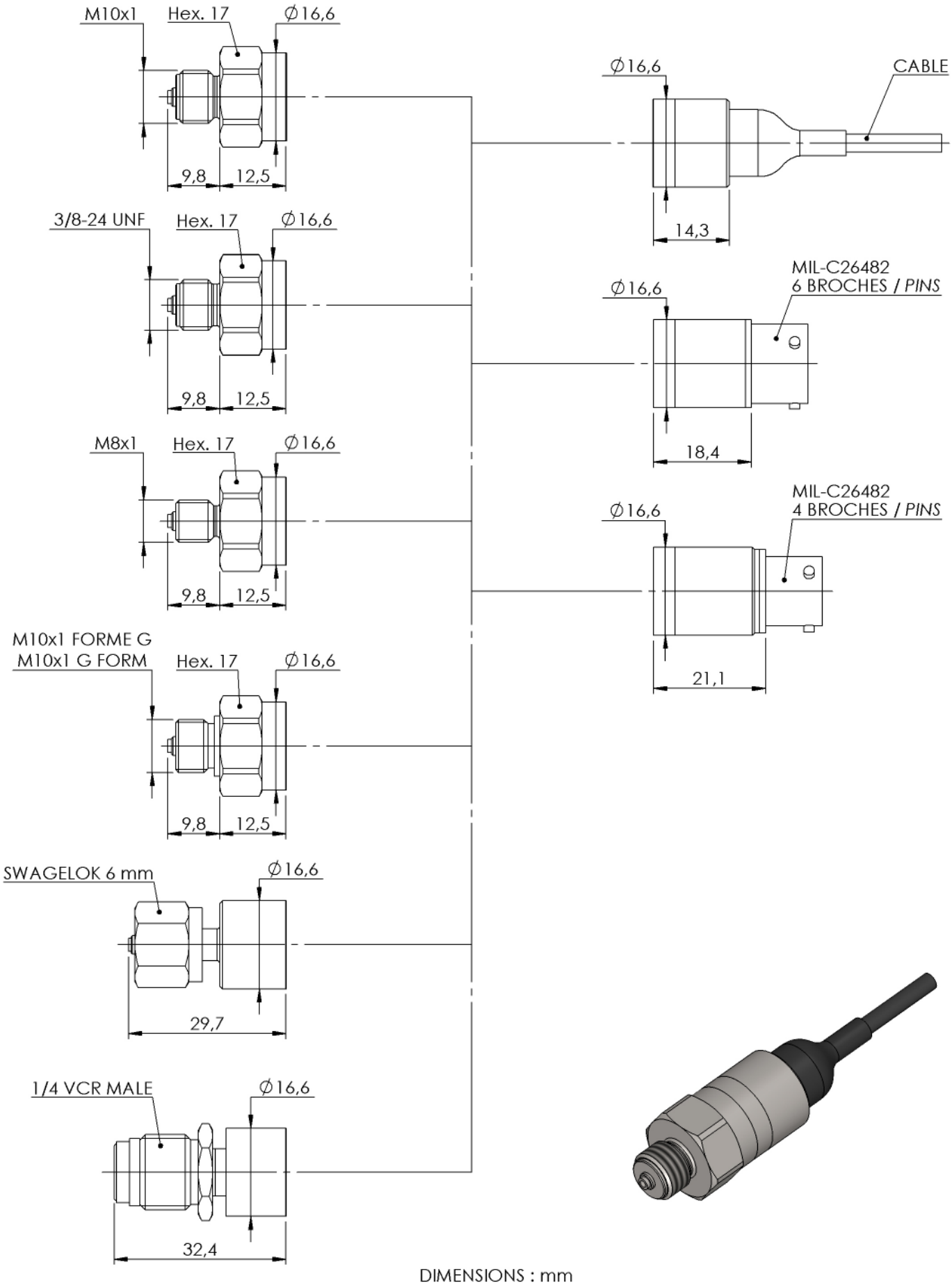
Pressure ranges (FS)	-1/+2bar ; -1/+5bar ; 3bar ; 5bar ; 10bar ; 20bar ; 40bar ; 100bar ; 250bar ; 400bar ; 600bar ; -14.5/+30PSI ; -14.5/+70PSI ; 8000PSI ; 40PSI ; 70PSI ; 150PSI ; 300PSI ; 500PSI ; 1500PSI ; 3000PSI ; 5000PSI
Type	Absolute ; Gage
Type (for ranges > 40 bar)	Sealed Gage
Safe overload	150% FS
Burst pressure	300% FS
Output impedance	> 3000 Ohms typ.
Input impedance	> 3500 Ohms typ.
Power supply	5 to 15Vdc
Consumption	< 10mA
Insulation	> 1000 MOhms under 50Vdc at ambient temperature
Output at -100%FS (only for ± range)	Proportional to +100%FS
Output at 0%FS	0mV/V

Technical Specifications

Output at 100%FS	1.5mV/V nom.
Zero and sensitivity settings tolerances	±3% FS
Non linearity and hysteresis combined	±0.25% FS
Non repeatability	±0.02% FS typ.
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 Minimess® ; 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

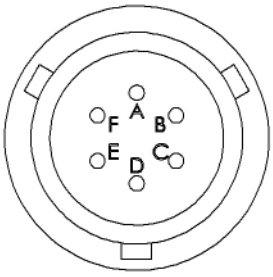
High Performance Miniature Pressure Sensor	PGP16	1	S	10bar	A	02	03	A	1	2
Output Signal										
mV/V		1								
Material										
Stainless Steels			S							
Range										
Example				10bar						
Type										
Absolute					A					
Gage					G					
Sealed Gage					SG					
Mechanical connection										
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										
±0.25% FS									1	
Combined thermal zero & sensitivity shifts										
±0.01% FS/°C										2



DIMENSIONS : mm

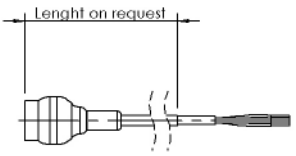


MIL-C26482 - 6 PINS	
mV/V OUTPUT	**PIN**
+ EXCITATION	PIN A
+ SIGNAL	PIN B
- SIGNAL	PIN C
- EXCITATION	PIN D
SENSOR HOUSING	PINS E &F



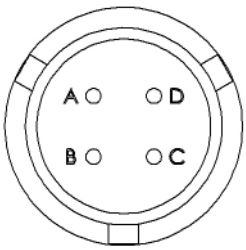


#26 AWG, 4 CONDUCTOR SHIELDED VITON CABLE	
mV/V OUTPUT	**CONDUCTOR**
+ EXCITATION	RED
+ SIGNAL	GREEN / YELLOW
- SIGNAL	WHITE
- EXCITATION	BLUE / BLACK
SENSOR HOUSING	SHIELD





MIL-C26482 - 4 PINS	
mV/V OUTPUT	**PIN**
+ EXCITATION	PIN A
+ SIGNAL	PIN C
- SIGNAL	PIN D
- EXCITATION	PIN B
SENSOR HOUSING	CONNECTOR HOUSING



Agent :

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