

High Pressure Miniature Sensor



The PHP107 pressure sensor has been designed to measure high pressure in the harshest environments,

Available in pressure ranges from 100 to 800 bar (absolute, gauge, or sealed gauge), the all-stainless steel design makes this product suitable for most industrial fluids, including corrosive ones.

PHP107 is manufactured with the ruggedized EFE proprietary sensing technology. Its manufacturing process, including traceable controls and special burn-in, gives the best insurance of high performance and stability in the most challenging applications.

The sensor's integrated electronics deliver a high level 0.5-4.5V signal. Its small package and low mass make it very adapted to application where space is at a premium.

FEATURES

- Miniature & High Pressure Sensor
- Available up to 800bar
- Operating from -40 to +140°C
- Built-in Electronics (0.5-4.5Vdc)

APPLICATIONS

X	Aerospace
X	Energy / Nuclear
X	Embedded Applications
X	Test Benches
	Others



TECHNICAL SPECIFICATIONS

- Pressure Specifications

Pressure ranges (FS)	100 bar; 250 bar; 400 bar; 800 bar 1500 PSI; 3000 PSI; 6000 PSI; 10 000 PSI
Type	<i>Absolute ; Gage; Sealed Gage</i>
Safe overload	<i>150% FS</i>
Burst pressure	<i>300% FS or 1200bar whichever is less</i>

- Electrical Specifications

Power Supply	<i>8 to 16Vdc</i>
Consumption	<i>< 10mA at room temperature</i>
Insulation	<i>> 1000 MOhms at 50Vdc at room temperature</i>
Offset	<i>0.5Vdc</i>
Sensitivity	<i>4Vdc</i>
Offset and sensitivity settings tolerances at room temperature	<i>±50mV</i>
Signal Bandwidth	<i>DC to 1kHz @-3dB</i> <i>Option : DC to 3kHz @-3dB for hydraulic use</i>



- Accuracy at room temperature

Nonlinearity and hysteresis combined	$\pm 0.25\%$ FS
Non repeatability	$\pm 0.02\%$ FS typ.

- Environmental Specifications

Compensated temperature range	0 to +60°C <i>Option : -40 to +125°C; any range between -40 and +140°C</i>
Operating temperature range	-40 to +140°C
Combined thermal zero & sensitivity shifts	$\pm 0.02\%$ FS/°C
Vibrations	20-2000Hz, 50g max.
Mechanical shock	100g ½ sinus 1ms
Electrical protection	Protected against polarity inversion
EMC protection	Compliant to EN61000
Enclosure protection	IP65 for absolute and sealed gage versions

- Technical Specifications

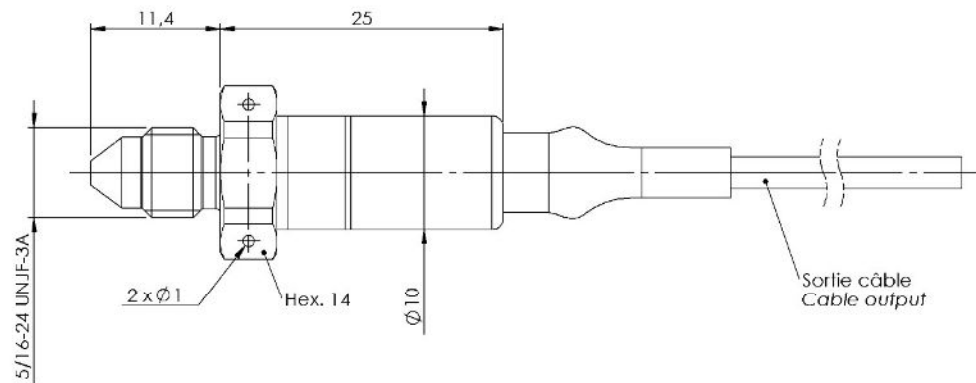
Electrical connection	AWG26, Viton Jacketed Shielded Cable Ø3mm, 4 wires
Mechanical connection	5/16-24 UNJF-3A male following MS33656-2
Material(s) of wetted parts	Stainless Steel : 316L, 17-4PH (1.4542) and 15-5PH (1.4545)
Weight	< 20g without cable



CODIFICATION

High Performance Miniature Pressure Sensor	PHP10	7	S	100bar	G	32	08/1m	D	1	1	-
Output Signal											
0.5-4.5V		7									
Material											
Stainless Steel			S								
Range											
Example : 100 bar				100bar							
Type											
Absolute					A						
Gage					G						
Sealed Gage					SG						
Mechanical connection											
5/16-24 UNJF-3A male following MS33656-2						32					
Electrical Connection											
AWG26, Viton Jacketed Shielded Cable, 4 wires							08/1m				
Compensated temperature range											
0 to +60°C								A			
-40 to +125°C								D			
Nonlinearity and hysteresis combined											
±0.25% FS									1		
Combined thermal zero & sensitivity shifts											
±0.02% EM/°C										1	
Options											
DC to 1kHz @-3dB											-
DC to 3kHz @-3dB for hydraulic use											B

DIMENSIONS



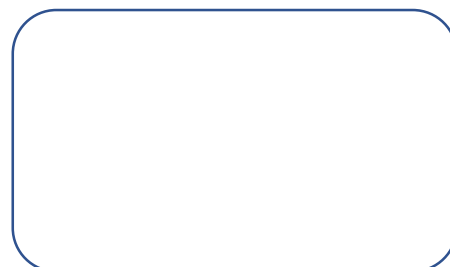
ECHELLE 1 : 1
SCALE 1 : 1

Dimensions : mm

ELECTRICAL WIRING

	VITON CABLE- 4 CONDUCTORS	
	VOLTAGE OUTPUT	CONDUCTOR
	+ Excitation	Red
	+ Signal	Green
	0 VDC	Black
	NC	White
	Sensor's Housing	Shield

AGENT



L'ESSOR FRANÇAIS ELECTRONIQUE
EFE

16-18 rue Porte a Bateaux - 27540 Ivry-la-Bataille - France
Tel: + 33 2 32 22 35 05 - Fax : + 33 2 32 36 93 08

www.efe-sensor.com • infos@efe-sensor.com