

Sub-Miniature Pressure Sensor for Harsh Environment



Technical specifications

Features	Applications
Available with 0,5-4,5Vdc output	Automotive - on vehicule
Operating from -40 to +140°C	Aerospace
Ultra light : < 10 grams	Test benchs
Large Bandwidth	Off-shore & Marine

The PHE100 series is designed to operate in the harshest environments, including wide temperature operating temperature, mechanical shocks and vibrations. It is well adapted to embedded measurements, on vehicules, aircrafts, satellites, robots, missiles or on test benches for any equipement where space and mass are at a premium. With pressure ranges available from -1 up to 250 bar, its stainless steel construction makes it usable with most fluids used in industry, even corrosive ones. The PHE100 is manufactured with the ruggedized and proprietary sensitive elements and components developed by EFE. Its manufacturing process, including traceable controls and special burn-in, gives the best insurance of high performances and stability in the most challenging applications.

Pressure ranges (FS) -1/+4bar; -1/+9bar; 5bar; 10bar; 20bar; 40bar; 70bar; 250bar; -14.5/+60PSI; -14.5/+140PSI; 70PSI; 150PSI; 300PSI; 500PSI; 1000PSI; 3000PSI Absolute; Gage Type Type (for ranges > 40 bar) Sealed Gage 150% FS Safe overload 300% FS Burst pressure > 3000 Ohms typ. Output impedance Input impedance > 3500 Ohms typ. Power supply 10Vdc stabilized and regulated Consumption < 10mA > 1000 MOhms under 50Vdc at ambient temperature Insulation 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 typical (±0.35% FS max.)

Non repeatability ±0.02% FS typ.

Compensated temperature range -40 to +125°C

Option : -40 to +140°C

Operating temperature range -40 to +140°C

Combined thermal zero & sensitivity shifts ±0.02% FS/°C

Option: ±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 Not protected against polarity inversion

EMC protection Compliant to EN61000

Electrical connection AWG26, Viton Jacketed Shielded Cable Ø3mm, 4 wires

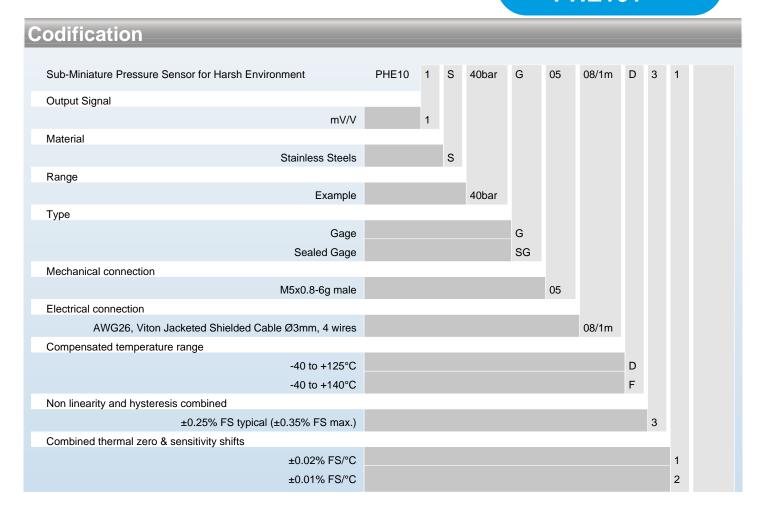
Mechanical connection M5x0.8-6g male

Material(s) of wetted parts Stainless Steel 316L; Stainless Steel 17-4PH; Stainless steel 15-5PH

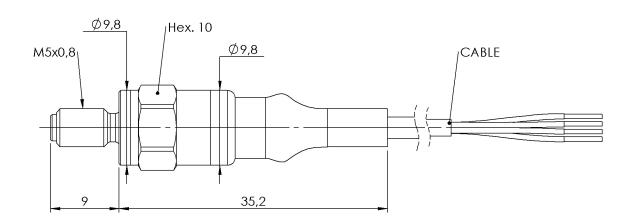
Weight 10g without cable

Enclosure protection IP65 for sealed gage version

PHE101



Dimensions PHE101

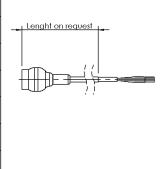




DIMENSIONS: mm



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





E.F.E.

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