As the global leader in Hermetic interconnect technology, Amphenol has the expertise and Hermetic solutions to support a wide range of markets and applications including aerospace, automotive, marine, industrial and high end military.

Amphenol has developed a new range of headers and connectors for the civil and military sensor market. The Hermetic Sensors are designed for extreme environments involving high pressure up to 6,000bar (87,000psi) combined with high temperature.

This range of headers is suitable for applications in the oil and gas and aerospace sensor industries.

Typical applications include:
- Pressure sensor
- Temperature sensor
- Dew point meters

Material used for the shells are St. Steel 304 S11, 316 S11, Astelloy and Inconel 600, 700, X-750, MP35N. Current permitted: signal mA up to high current > 10A.

Key Features

- **Environment**
  - Temperature up to 500°C
  - Corrosive atmosphere
  - Gas
  - Radiation

- **Mechanical**
  - Most of these shell alloys can be sealed by: Tig, EB, laser welding
  - Hermeticity achieved is Better $10^{-9} \text{cm}^3\cdot\text{s}^{-1}$ at 1bar $\Delta P$
  - Pressure up to 6,000bar

- **Electrical**
  - Insulation resistance 0.1 to 10 GΩ
  - Breakdown 1 to 12 KV.
Hermetic Connectors

Our process capabilities and expertise:
**Machining of Shells/bodies:** Mild Steel, Stainless Steel, Titanium, Copper alloys and Aluminium.
**Pref orm/beads:** range of 5 glass and hybrid ceramic glass.
**Contacts:** FeNi alloy, Kovar, Stainless Steel, Cu core 2/3, BeCu......

Our Hermetic sealing facilities include:
Hermetic glass-to-metal sealing (and matched seals, low to high compression seals) conveyor and batch ovens, also brazing facility supported with variable protective atmosphere oven.

IR/BD up to 12KV electric testing, Helium leak testing up to $5 \times 10^{-12}$, Pressure test up to 170 bar, visual and general inspection and marking.

Traditional machining and also full C.N.C. and milling capability, complete with standards room inspection and full batch control.

Plating and surface finishing department, encompassing rack and barrel plating for small to medium electro-mechanical assemblies. A number of surface finishes are available including Hard Gold, Silver, Tin, Nickel, Zinc Cobalt, Cadmium and electro polishing.

Engineering for design and prototype development, Amphenol also offer in-house tool design and manufacturing as well as test lab facilities for environmental and electrical qualification.

Amphenol are investigating, developing and implementing new sealing technologies in order to meet and exceed the increasing technical expectations of our customers.