AMETEK®

ENGINEERED INTERCONNECT
AND PACKAGING






PRECISION TECHNOLOGY FOR HIGH-PERFORMANCE DEFENSE APPLICATIONS

Delivering high-quality standard and custom hermetic interconnect solutions to ensure reliability of your mission critical defense electronics on land, air, sea and space.

HSC HERMETIC SEAL™ / S SEALTRON™ / A AEGIS™

SCP AMETEK SCP™ / GSP GLASSEAL PRODUCTS™

AMETEK®
ENGINEERED INTERCONNECT AND PACKAGING

A BEACON OF INNOVATION AND RELIABILITY IN THE DEFENSE INDUSTRY.

With decades of expertise, AMETEK Engineered Interconnect and Packaging (EIP) stands as a world leader in hermetic connectors, feedthroughs, packages, and headers. At AMETEK EIP, we specialize in designing custom electronic packaging and interconnect solutions. With Europe being the second largest defense market after the United States, our dedicated sales team is deployed globally to forge close-knit trusted relationships with key industry players to develop tomorrow's innovations.



Our commitment to excellence is evident in our ability to provide standard, and Qualified Products List (QPL) connectors, as well as custom solutions crafted to thrive in high-temperature and high-pressure environments. By combining best-in-class design capabilities, worldwide volume manufacturing, and field-proven expertise across a diverse range of industries, AMETEK EIP is the solution provider of choice when reliability is paramount in challenging environments.

Our products, renowned for their quality, durability, and reliability, are trusted in mission-critical applications, particularly within the defense sector. AMETEK EIP has strategically increased manufacturing capabilities to meet the growing demand.

The following applications carry our products:



IN THE **AIR**

- Flight actuation
- Sensing & data-systems
- Fuel & hydraulic
- Landing gears
- Radar/GPS/navigation/IR
- Engine control



ON THE **GROUND**

- Switches
- Breaking controls
- Data monitoring
- Energy supply
- Electro-optical infrared sensing
- Getter adapters & high vacuum assemblies
- Weapon guidance



IN THE **SEA**

- Sonars
- Torpedos
- Antennas
- Vertical launch systems
- Pressure hull penetrators
- Fiber optics/data communications
- Towed arrays



IN **SPACE**

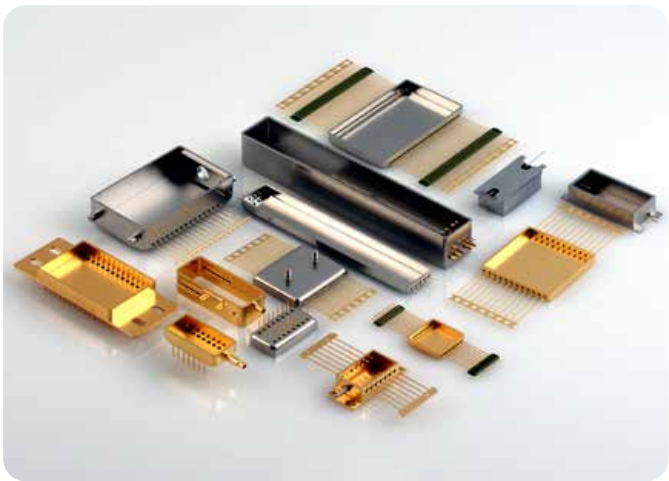
- Fuel system
- Sensor applications
- Satellite programs
- Space labs
- Space suits

Custom solutions

We understand that every project comes with unique requirements. That's why we offer custom solutions tailored to your needs. From standard to custom hermetic components, we have the capability to modify designs to fit the specific requirements of your application.

With in-house machining, glass-preform manufacturing, and rigorous testing capabilities, we ensure that our solutions meet the highest standards.





Key Capabilities

- Vertically integrated manufacturing
- Glass-to-metal-sealing
- Precious metal plating operations
- Mil standard or custom specifications
- AS9100D registered at all facilities

Product Types

- Hermetic circular connectors
- Custom hermetic circular connectors
- Extreme temperature hermetic connectors
- Aluminum GTMS
- IR cooled systems
- D Subs and Micro D connectors
- EN2997
- ESC10
- D38999
- Hermetic terminals and end seals
- Machined housings
- Ceramic feedthroughs-HTCC
- Hermetic plug-in packages

IN THE AIR WITHIN
MILITARY AIRCRAFT

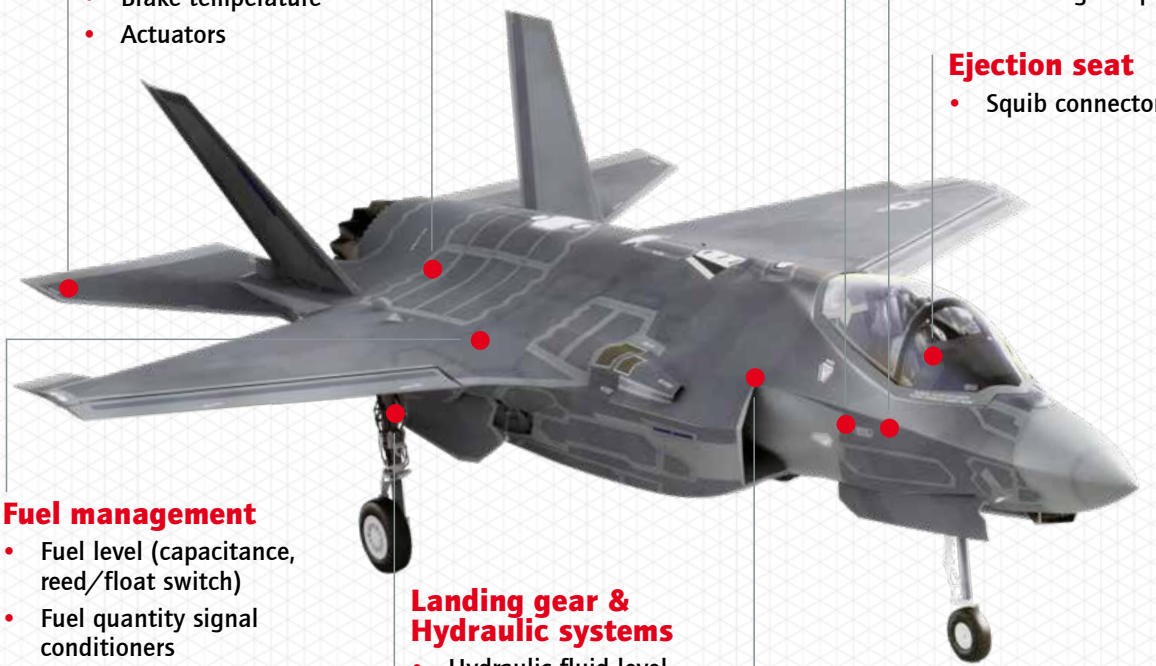
Flight controls & airframe
- Flaps/slats/spoiler/aileron position sensors
- Rudder/elevator position
- Door position/proximity
- Landing gear position /pressure
- Brake temperature
- Actuators

Engine sensors
- Total air temperature
- Exhaust gas temperature
- Filter differential pressure
- Bleed air pressure
- Oil and temperature level
- High temperature connectors
- Flow meters
- N1/N2 speed
- Position sensors
- Accelerometers

Health & usage monitoring
- Fatigue meter
- Inertial and piezoelectric accelerometers

Air data sensors
- Air data computers
- Angle of attack sensors
- Total air temperature
- Total air pressure
- Stall warning computers

Ejection seat
- Squib connectors



Fuel management
- Fuel level (capacitance, reed/float switch)
- Fuel quantity signal conditioners
- Refuel panels
- In-tank sensors & switches
- Densitometers
- Oxygen level sensor

Landing gear & Hydraulic systems
- Hydraulic fluid level (capacitance, reed/float switch)
- Filter/pump differential pressure
- Pressure switches
- RTD temperature sensors

Weapons systems
- Pressure and temperature sensors
- LVDT position sensors
- Seeker/guidance systems
- Ignitors
- Fuzes/countermeasures







ON THE GROUND WITHIN

MILITARY GROUND VEHICLES

Hydraulic systems
- Pressure sensors
- Pressure switches
- Temperature sensors

Doors & panels
- Position sensors
- Proximity sensors

Weapons system
- Position sensors
- Proximity sensors
- Pressure sensors
- Temperature sensors



Engine & transmission
- Temperature sensors
- Filter differential pressure
- Oil level
- Oil temperature
- Pressure switches
- Speed sensors
- Position sensors
- Accelerometers

Wheel and brake
- Accelerometers
- Speed sensors
- Temperature sensors

Fuel system
- Fuel level
- Pressure sensors
- Temperature sensors

Vehicle positioning
- Accelerometers
- Position sensors
- Proximity sensors







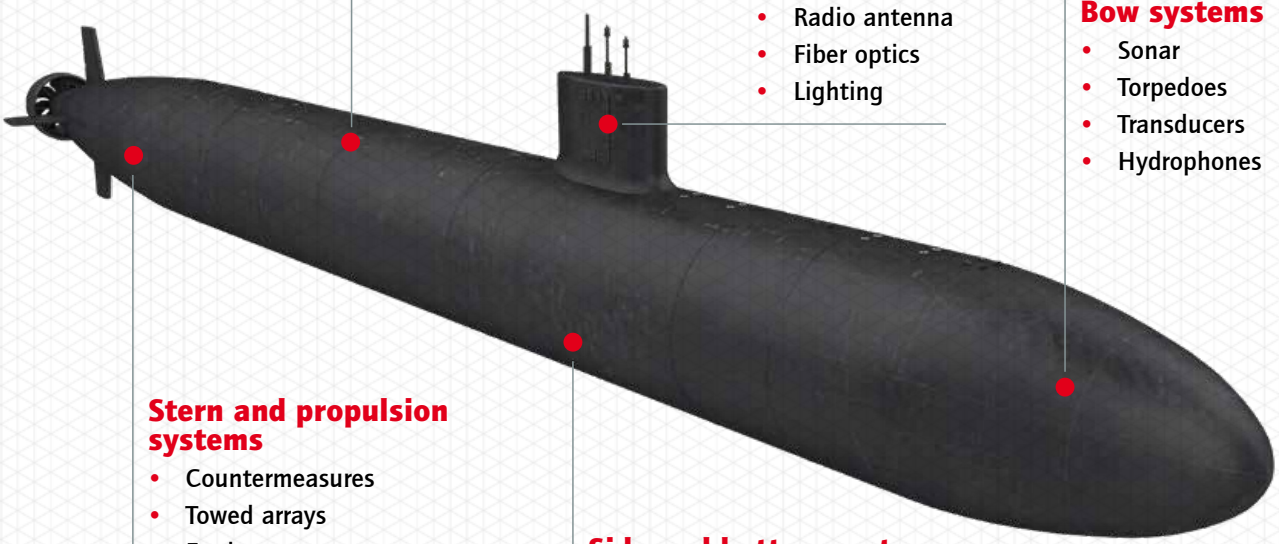
ON THE SEA WITHIN
SUBMARINE FLEETS

Providing support for submarine fleets across the globe

Weapon systems
- Vertical launch system
- Pressure hull penetrator

Sail systems
- Periscope
- Radio antenna
- Fiber optics
- Lighting

Bow systems
- Sonar
- Torpedoes
- Transducers
- Hydrophones



Stern and propulsion systems
- Countermeasures
- Towed arrays
- Engine room
- Splice blocks

Side and bottom systems
- Ballast tanks
- LVA Sonar
- Junction boxes

AMETEK EIP supports all major systems including:
Infrastructure, Communication, Navigation, Weapons, and Intelligence





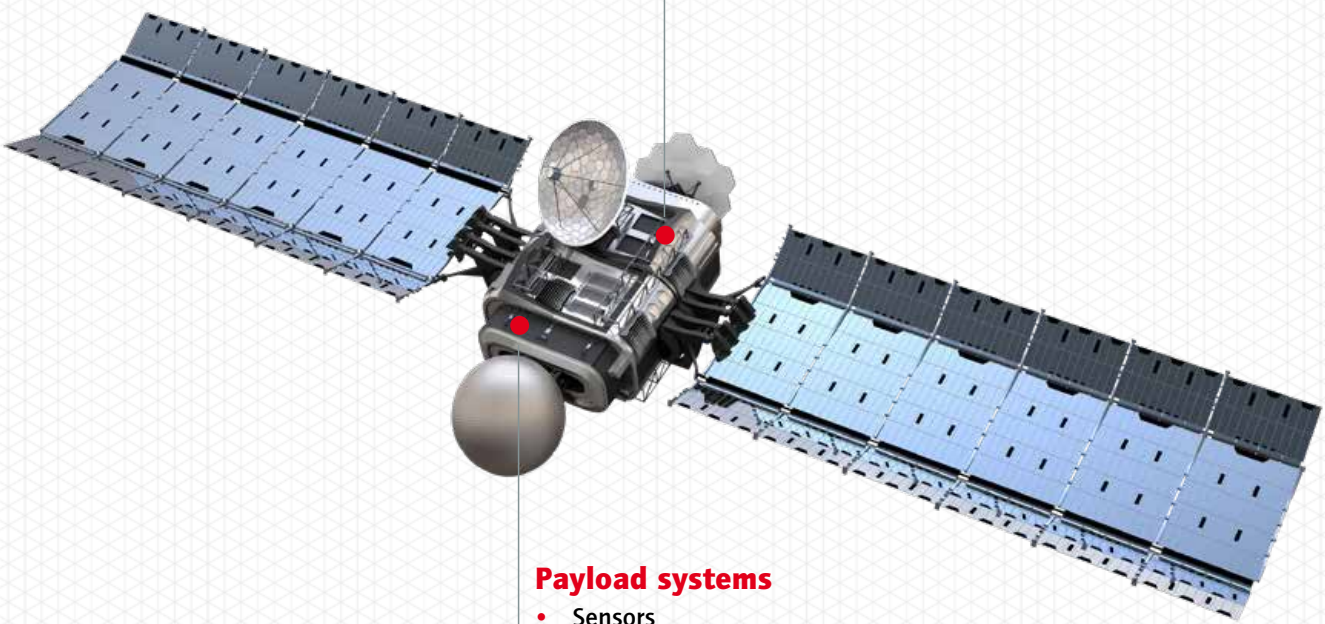


IN SPACE WITHIN

TYPICAL SATELLITE COMPONENTS

BUS systems

- Antennas
- Avionic
- Navigation and guidence systems
- Solar array
- Batteries

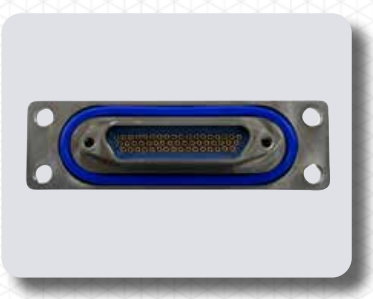


Payload systems

- Sensors
- Cameras
- Spectometers
- Transponders









Extreme Temperature Hermetic Connector

Extreme temperature connectors can be manufactured using Mil Spec and EN compatible plug and receptacle configurations that are dimensionally equivalent to MIL-DTL-83723 and EN2997. Manufactured for low and high temperatures with an extreme range from -200C to +550C, they can also be can also be designed based on customer specific geometries.



Aluminum GTMS

Aluminum-based hermetically sealed interconnect solutions offer a unique choice for military, defense, and harsh environment applications due to their durability, reliability, and performance. Aluminum connectors with direct glass seal withstand the highest standards for vacuum and temp-cycles.



IR Cooled Systems

High-performance IR cameras and detectors require high-vacuum cryogenic assemblies to achieve the high resolution required for advanced applications. Our expertise in glass-to-metal-sealing, machining, brazing, welding and High-Temperature Co-fired Ceramics (HTCC).



D Subs and Micro D Connectors

D Subs and Micro Ds offer unparalleled advantages for electronic and electrical equipment, particularly in the demanding environment of space. Their compact design serves as an ideal response to the critical defense requirements for weight reduction and miniaturization essential for space missions. These connectors not only provide robust connectivity but also contribute significantly to the overall efficiency and performance of air and space-bourne systems.

About AMETEK Engineered Interconnect and Packaging

AMETEK Engineered Interconnect and Packaging (EIP) is a leading manufacturer of hermetically sealed interconnection products and microelectronic packages, using both glass-to-metal-seal and High Temperature Cofired Ceramic (HTCC) technologies, and electrical and optical connectors and cable assemblies for harsh environments.









AMETEK Engineered Interconnect and Packaging (EIP) consists of five brands and operating facilities across the United States.

With more than 70 years of experience in addressing interconnection, packaging and cabling problems in mission critical environments, AMETEK EIP engineers products that withstand the harsh conditions of aerospace applications, and provides support services that enable your success.

AMETEK EIP is a global leader in material science, electronic components manufacturing and integrated industrial services.

Our extensive portfolio of precision aerospace components, interconnect technologies and sealed packaging options are diverse enough to serve original equipment manufacturers (OEMs) in both commercial and military sectors around the globe. Our electronic components are found in avionics, guidance and control assets, sensors, instrumentation and more.







ABOUT AMETEK

AMETEK Engineered Interconnect and Packaging is a business of AMETEK Inc., a leading global provider of industrial technology solutions serving a diverse set of attractive niche markets.

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