WHO WE ARE

PEI-Genesis is one of the world’s fastest assemblers of precision connectors. From one of the largest component inventories, we deliver on time and to your requirements. Our global technical support staff is available to help solve your design challenges. PEI-Genesis can build over twelve million unique connectors from stock at a rate of more than 5,000 per hour. Using proprietary automation for speed, consistency, and quality, we can build just one piece or 10,000 pieces with equal ease to any standard or customized specification.

PEI-Genesis is the only partner that offers assembly and shipment of connectors in 48 hours. Headquartered in Philadelphia, PA, PEI-Genesis has production facilities in South Bend, IN; Southampton, UK; and Zhuhai, China. PEI-Genesis has sales offices throughout the Americas, Europe, and Asia.

THE PEI ADVANTAGE

When it comes to the world of connectors and cable there is a vast array of manufacturing options. Because these products are not the primary driver in a design, they are typically considered late in the design cycle. That tendency, when coupled with long lead times, can cause a disproportionate share of delays and aggravation.

PEI-Genesis will solve your design challenges. We will save you time by allowing your engineering team to focus solely on critical design elements. We will engage with you early in the design cycle, give you access to engineers around the world, provide design tools and methodology, and bring world-class expertise to your application requirements in order to accelerate your design cycle and offload a significant portion of the design effort.

COMPREHENSIVE TECHNICAL SUPPORT

Our engineers are ready to assist you online, by phone, or at your site.

North America: +1 800.675.1214
Europe: +44 (0) 23 8062 1260
Asia: +86 756 7683 088
Rest of World: +1 631.475.5050
Email: sales@peigenesis.com
Online: visit www.peigenesis.com to complete a tech support request form – responses guaranteed in 24 hours or less

An Authorized Source

PEI-Genesis sells and assembles only fully-authorized products. Our product capabilities meet the highest military and industrial standards for consistent quality, inspection, marketing & packaging.
**LIMITED WARRANTY**

Amphenol manufactures some of the highest quality products available; however, these products are intended for use in strict accordance with the specifications in this catalog.

A. If any of the products in this catalog are electrical components, connectors thereof, or electrical connectors accessories, then the warranty terms set forth in this subparagraph (a) apply to them. Amphenol Corporation, Amphenol Aerospace and PEI-Genesis warrant each new product sold by Amphenol or PEI-Genesis to be free from defects in materials and workmanship under normal use and service. The obligation and liability of Amphenol and PEI-Genesis under this warranty is limited to the repair or replacement at its factory, at the option of Amphenol or PEI-Genesis, of any such product which proves defective within ninety (90) days after delivery to the first end user, and is found to be defective in materials and workmanship by Amphenol inspection. Neither Amphenol nor PEI-Genesis shall be obligated or liable under this warranty for any defects which examination discloses are due to tampering, misuse, alteration, neglect, improper storage, normal wear and tear and all cases where the products are disassembled by other than authorized Amphenol or PEI-Genesis representatives. In addition, neither Amphenol nor PEI-Genesis shall be obligated or liable under this warranty unless the date of delivery to the first end user is within six (6) months of the date of delivery to the original purchaser, if different from the first end user, and further provided that written notice of any defect must be given to Amphenol or PEI-Genesis within thirty (30) days from the date such defect is first discovered.

Products covered by this warranty must be returned with all transportation charges prepaid to Amphenol Corporation, Amphenol Aerospace or PEI-Genesis in shipping containers that are adequate to prevent loss or damage in shipment. Products repaired or replaced under this warranty are warranted for the unexpired portion of the original warranty or for thirty (30) days, whichever is greater.

**PRODUCT SAFETY INFORMATION**

This information sheet should be read in conjunction with the Product Data Sheet/ Catalog distributed by PEI-Genesis. Failure to observe the advice in this information sheet and the operating conditions specified in the Product Data Sheet/ Catalog could result in hazardous situations. None of the connectors in this catalog are meant to be mated or unmated under load.

1. **MATERIAL CONTENT AND PHYSICAL FORM**

   Electrical connectors do not usually contain hazardous materials. They contain conducting and nonconducting materials and can be divided into two groups:
   - a) Printed circuit types and low cost audio types which employ all plastic insulators and casings; and
   - b) Rugged, Fire Barrier and High Reliability types with metal casings and either natural rubber, synthetic rubber, plastic or glass insulating materials.

   Contact materials vary with type of connector and application and are usually manufactured from copper alloys, nickel, alumel, chromel or steel. In special applications, other alloys may be specified.

2. **FIRE CHARACTERISTICS AND ELECTRIC SHOCK HAZARD**

   There is no fire hazard when the connector is correctly wired and used within the specified parameters.

   Incorrect wiring or assembly of the connector or careless use of metal tools or conductive fluids, or transit damage to any of the component parts may cause electric shock or burns. Live circuits must not be broken by separating mated connectors as this may cause arcing, ionization and burning.

   Heat dissipation is greater at maximum resistance in a circuit. Hot spots may occur when resistance is raised locally by damage, e.g., cracked or deformed contacts, or broken strands of wire. Local overheating may also result from the use of incorrect application tools or from poor quality soldering or slack screw terminals. Overheating may occur if the ratings in the Product Data Sheet/Catalog are exceeded and can cause breakdown of insulation and, hence, electric shock.

   If heating is allowed to continue, it intensifies by further increasing the local resistance through loss of temper of spring contacts, formation of oxide film on contacts and wires, and leakage currents through carbonization of insulation and tracking paths. Fire can then result in the presence of combustible materials and this may release noxious fumes. Overheating may not be visually apparent. Burns may result from touching overheated components.

3. **HANDLING**

   Care must be taken to avoid damage to any component parts of electrical connectors during installation and use. Although there are normally no sharp edges, care must be taken when handling certain components to avoid injury to fingers.

   Electrical connectors may be damaged in transit to customers and such damage may result in creation of hazards. Products should therefore be examined prior to installation or use and rejected if found to be damaged in any respect.

4. **DISPOSAL**

   Dispose of all products properly. The incineration of some products may release noxious or even toxic fumes.

5. **APPLICATION**

   Connectors with exposed contacts should not be selected for use on the current supply side of an electrical circuit, because an electric shock could result from touching exposed contacts on an unmated connector. Voltages in excess of 30 VAC or 42.5 Vdc are potentially hazardous and care should be taken to ensure that such voltages can not be transmitted in any way to exposed metal parts of the connector body. The connector and wiring should be inspected, before making live, to ensure there is no damage to metal parts or insulators, no solder blobs, loose strands, conducting lubricants, sweat, or any other undesired conducting particles. Circuit resistance and continuity checks should be made to make certain that there are no low resistance joints or spurious conducting paths. Always use the correct application tools as specified in the Data Sheet/Catalog.

   Do not permit untrained personnel to wire, assemble or tamper with connectors. For operation voltage please see appropriate national regulations.

**IMPORTANT GENERAL INFORMATION**

1. **AIR AND CREEPAGE PATHS/OPERATING VOLTAGE**

   The admissible operating voltages depend on the individual applications, and the valid national and other applicable safety regulations. For this reason, the air and creepage path data are only reference values. Observe reduction of air and creepage paths due to PC board and/or harnessing.

2. **TEMPERATURE**

   All information given are temperature limits. The operating temperature depends on the individual application.

3. **OTHER IMPORTANT INFORMATION**

   Amphenol and PEI-Genesis continuously endeavor to improve products. Therefore, products may deviate from the description, technical data or specifications and/or shape as shown in this catalog. Amphenol and PEI-Genesis reserve the right to change the description, technical data or specifications and/or shape of any products at any time.

4. **HARNESSING AND ASSEMBLY INSTRUCTIONS**

   If applicable, our special harnessing and/or assembly instruction must be observed.
97 SERIES
The 97 series is a durable, cost-effective MIL-DTL-5015 available in a variety of shell styles, sizes, contacts, and layouts. Contacts are silver-plated with pre-tinned solder cups. These circular connectors are excellent for industrial applications including robotics, machine tools and welding.

AIB/GT SERIES
The AIB/GT Series replaces the threaded coupling used in MIL-DTL-5015 with a positive, quick-mating, three-point reverse bayonet lock for improved performance. These Amphenol connectors are an ideal cost-effective option for applications requiring reliability in harsh environments, and the world-standard for rail, mass transit, and military ground vehicle applications. This series has the same shell dimensions, contact layouts, contacts, and performance characteristics as the MIL-DTL-5015 threaded connectors; however, the two series do not intermate. They are sealed to withstand moisture, condensation, vibration and flash-over. Over 180 contact layouts are available, in variations that allow for just power, just signal, or a mix of both contact types.

MS3450 (944*) SERIES
The MIL-DTL-5015 Rear-Release Threaded MS3450 Matrix® series uses rear-release crimp contacts with retention clip. These Amphenol connectors fill the gap between older MIL-DTL-5015s and the environmental and higher-performance needs of new technologies. They are sealed to withstand moisture, condensation, vibration and flash-over. Over 286 contact layouts are available, in variations that allow for just power, just signal, or a mix of both contact types.

PT MIL-DTL-26482 SERIES I
The Amphenol MIL-DTL-26482 Series I PT/PT-SE offers high-density contact arrangements in a circular shell. PT offers solder contacts, PT-SE offers high-performance crimp contacts, and PT-CE offers a commercial crimp option. These circular connectors provide quick-disconnect bayonet coupling for rapid mating and unmating, and several mounting styles and shell sizes.

AIT/MS SERIES
The MIL-DTL-5015 AIT/MS series is a cost-effective threaded circular connector for use in harsh environments. These Amphenol connectors are sealed to withstand moisture, condensation, vibration and flash-over. Over 286 contact layouts are available, in variations that allow for just power, just signal, or a mix of both contact types. Available in five mounting styles, nineteen shell sizes, and solder or crimp termination.

LJT MIL-DTL-38999 SERIES I/HE-308
Amphenol’s MIL-DTL-38999 series I LJT miniature connectors offer high-density contact arrangements and are suitable for extremely high-reliability connections, including use in military and commercial aviation. They are environmentally-sealed and have a wide operating temperature range.

PT MIL-DTL-26482 SERIES II
Amphenol’s Matrix® MIL-DTL-26482 series II miniature cylindrical connectors have a quick-mating, three-point bayonet coupling system. Given their small size and high-quality contact retention and seal, the MB series is excellent for high-reliability applications in the harshest conditions, including the aerospace industry.

JT MIL-DTL-38999 SERIES II/HE-308
Amphenol’s MIL-DTL-38999 series II JT miniature connectors offer high-density contact arrangements in a small size. They were designed for high-performance requirements, including military and commercial aviation applications. They are environmentally-sealed and have a wide operating temperature range.

TV-CTV MIL-DTL-38999 SERIES III
TV-CTV Tri-Start MIL-DTL-38999 Series III connectors have high-density contact arrangements in a miniature circular shell. Originally designed for the high-performance requirements of military and commercial aircraft, these circular connectors are perfect for applications requiring extremely reliable interconnections. TV’s are quick-mating and environmentally-sealed.

AMPHE-LITE
Amphenol’s MIL-DTL-38999 series III Amphe-Lite™ connectors are light-weight commercial 38999s that offer the highest performance capabilities for harsh environments, including communication towers and equipment, manufacturing process control and medical equipment.

SJT/JN1003 SERIES
Amphenol’s SJT series of miniature MIL-DTL-38999 series II circular connectors offer high-density contact arrangements. They are environmentally-sealed and have a wide operating temperature range.

AMPHE-EX
Amphenol Industrial’s explosion-proof connector series Amphe-EX is ATEX and IECex-approved for Zone 1-rated (Europe) and Class I, Division II (USA) hazardous applications (IECex 60079). Amphe-EX is the only explosion-proof connector that allows the use of copper, coax and fibre optic contacts in one product. PEI-Genesis is the only approved worldwide assembling distributor.
SCE2 TERAPIN SERIES
Amphenol’s SCE2 Terrapin series of miniature push-pull connectors are environmentally-sealed for use in harsh environments. They offer silent mating with high mating cycles and a lockable coupling ring to prevent connector break-away. For more product details, please see full specifications below.

2M SERIES
Amphenol 2M micro-miniature connectors are a small, light-weight option for mil-spec performance that can withstand harsh environments. They are quick-mating and a variety of styles and options are available. For full product details, please see our specifications below.

RJ FIELD SERIES
The Amphenol RJ Field series allows the use of an Ethernet Class D/CAT5e and Class E/CAT6 connection for Ethernet over twisted-pair networks in harsh environments. The RJStop® connection system protects from shock, dust and fluid. No hazardous on-field cabling and grounding required!

44 SERIES
Amphenol Tuchel 44 series connectors offer cost-effective performance for applications requiring environmental sealing. The connector’s single-piece structure is resistant to water, fuel, lubricants, ozone, road salt and vibration.

C091 SERIES
The Amphenol-Tuchel C091 series connectors are available in a variety of contact arrangements and have a metal integral strain relief. They are available in straight or right-angle configurations.

ECO-MATE
Amphenol Ecomate connectors are rugged and offer environmental protection under event extreme conditions. They are excellent for plant construction, machine building, control technology and medical applications. A wide selection of housings and shapes are available.

ALDEN PRODUCTS
Amphenol Alden Pulse-Lok® connectors have a unique locking coupling system with both tactile and audible confirmation for secure connections as well as quick-release action. These connectors are excellent for medical, factory automation, and instrumentation field applications. Many contact types are available, including signal, power, high-voltage, and Ethernet.

LMD/LMS MODULAR CONNECTORS
The LMD/LMS Connector Series was designed by Amphenol Pyle-National to provide flexibility in the assembly of wire harnesses that are used in instrumentation and avionic control environments. The modular design of the LMD provides rack and panel or cable to cable attachment. LMS allows an in-line splice using the same modules.

LUMINUS SERIES CONNECTORS
With multiple product options to choose from, they meet MIL-T-81714, accept AS39029 and Stamped & Formed contacts, and are environmentally-sealed to IP67. Ideal where space is limited, these innovative, “scoop-proof” connectors feature a locking mechanism that ensures stability, are suitable for blind-mating, and are RoHS compliant.

STAR-LINE® CONNECTORS
Heavy-duty, multi-pin, electrical connector designed for rugged and harsh environments. One-piece, two-keyed shell, coupling nut, cable adapter, gland and clamp nut are constructed of high-grade machined aluminum with a hard coat finish for superior corrosion resistance. Formerly Pyle Star Line.

STAR-LINE EX® CONNECTORS
Amphenol Explosion-proof Connectors ATEX certified for Zone 1-IIc hazardous environment, Cenelec IP68-8 rated, and IECex certified (IECex 60079). With a broad range of reversible inserts; solder, crimp and pressure terminals; and flexible cable options, Star-Line EX will meet application demands in petrochemical refineries, land and offshore drilling systems. RoHS compliant products available.

For assistance in Europe and China, please see the back cover for a complete listing of our branch offices and contact numbers. Specifications subject to change.
**CONNECTOR SERIES COMPARISON CHART**

Connector cost generally increases across the table from left to right.

**REVIEW THE BASIC TYPES**
- Industrial/commercial connectors generally do not need to operate in extreme conditions.
- Harsh environment connectors are generally used in harsh and/or outdoor applications.
- Military connectors will meet different mil specifications.

**START WITH THESE FOUR VARIABLES:**
1. Determine wire gauge range
   - Will indicate connector size.
2. Determine required number of circuits
   - Generally, more circuits mean a larger and more expensive connector.
3. Determine if water-jet sealing is necessary
   - Choices include submersible, individual wire sealing and cable jacket sealing.
4. Determine if EMI-RFI Shielding is required
   - Does your connection need protection from interfering signals? Generally, this requirement spares economical connectors from mid-range cost.

By answering these questions and using the information on this chart, you should identify the series that will fit your needs.

Please visit our Web site for an interactive comparison and selection guide featuring our entire line of Amphenol connectors.

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<table>
<thead>
<tr>
<th>Connectors</th>
<th>5015 Series</th>
<th>AIT/MS</th>
<th>MS3450</th>
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<tbody>
<tr>
<td>97</td>
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<tr>
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<td>Harsh Environment</td>
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<tr>
<td>Military</td>
<td>■</td>
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<td>Wire Gauge Range (AWG)</td>
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<td>26 to 0</td>
<td>20 to 0</td>
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<td>Number of Circuits</td>
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<td>1 to 85</td>
<td>1 to 85</td>
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<td>Sealed Against Water Jets</td>
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<td>Yes</td>
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<tr>
<td>EMI/RFI-Shielding</td>
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<td>Yes</td>
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<td>Style</td>
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<td>Current Rating (Amps)</td>
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<td>Power &amp; Signal on Same Layout</td>
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<td>Yes</td>
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<td>Operating Temperature</td>
<td>-67°F to 257°F -55°C to 125°C</td>
<td>-67°F to 257°F -55°C to 125°C</td>
<td>-75°F to 392°F -55°C to 200°C</td>
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<td>Individual Wire Sealing</td>
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<tr>
<td>Cable Jacket Sealing</td>
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<td>Insert Polarization Options</td>
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<td>Coax</td>
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<td>Insulation Displacement or Screw</td>
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<td>5015 Series</td>
<td>26482 Series</td>
<td>38999 Series</td>
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<td>PT/PTSE</td>
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<td>Feature</td>
<td>TV-CTV</td>
<td>Amphe-Lite</td>
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<td>First-Mate Last-Break</td>
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For assistance in Europe and China, please see the back cover for a complete listing of our branch offices and contact numbers. Specifications subject to change.
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