



COMMERCIAL AEROSPACE

FROM CABIN TO WING TO COCKPIT

Smarter System-Level Solutions That Save
Space, Reduce Weight, and Boost Performance

TE'S SYSTEM SOLUTIONS . . . LIGHTEN THE LOAD . . . SAVE SPACE . . . BOOST PERFORMANCE

Sense It . . . Connect It . . . Make It Happen

Work with TE Connectivity (TE) to solve tough connectivity and packaging issues. Talk to us early to leverage the full power of our expertise. Early on, we can take your preliminary requirements and recommend the best way to satisfy them technically and economically.

We become an extension of your engineering team—lending our expertise and allowing you to concentrate your resources in areas of your expertise.

We can help you achieve:

Size and Weight Reduction

- Lightweight materials, including composites
- Miniaturization
- Higher integration

Complexity Reduction

- Integrated subassemblies

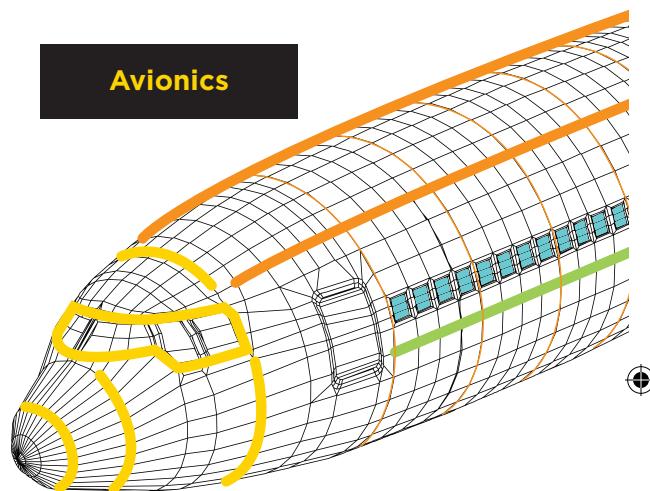
Signal Integrity

- Increased bandwidth
- EMI protection

Reliability

- Lightning protection
- Clean, reliable power
- Mechanical and environmental robustness

Avionics



TE Components . . . TE Technology . . . TE Know-how . . .

AMP | Agastat | CII | Hartman | Kilovac | Microdot | Nanonics | Polamco | Raychem | Rochester | DEUTSCH
SEACON Phoenix | L.L. Rowe | Phoenix Optix | AFP | SEACON

Get your product to market faster with a smarter, better solution.

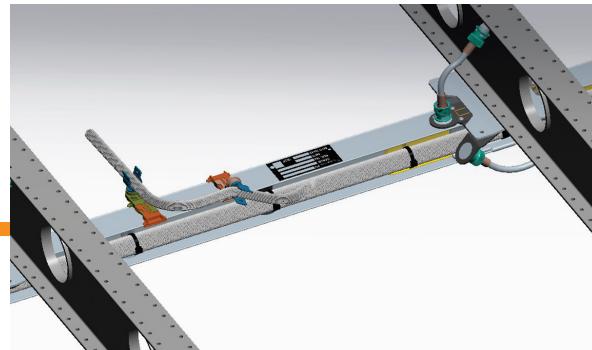
DISTRIBUTED AVIONICS

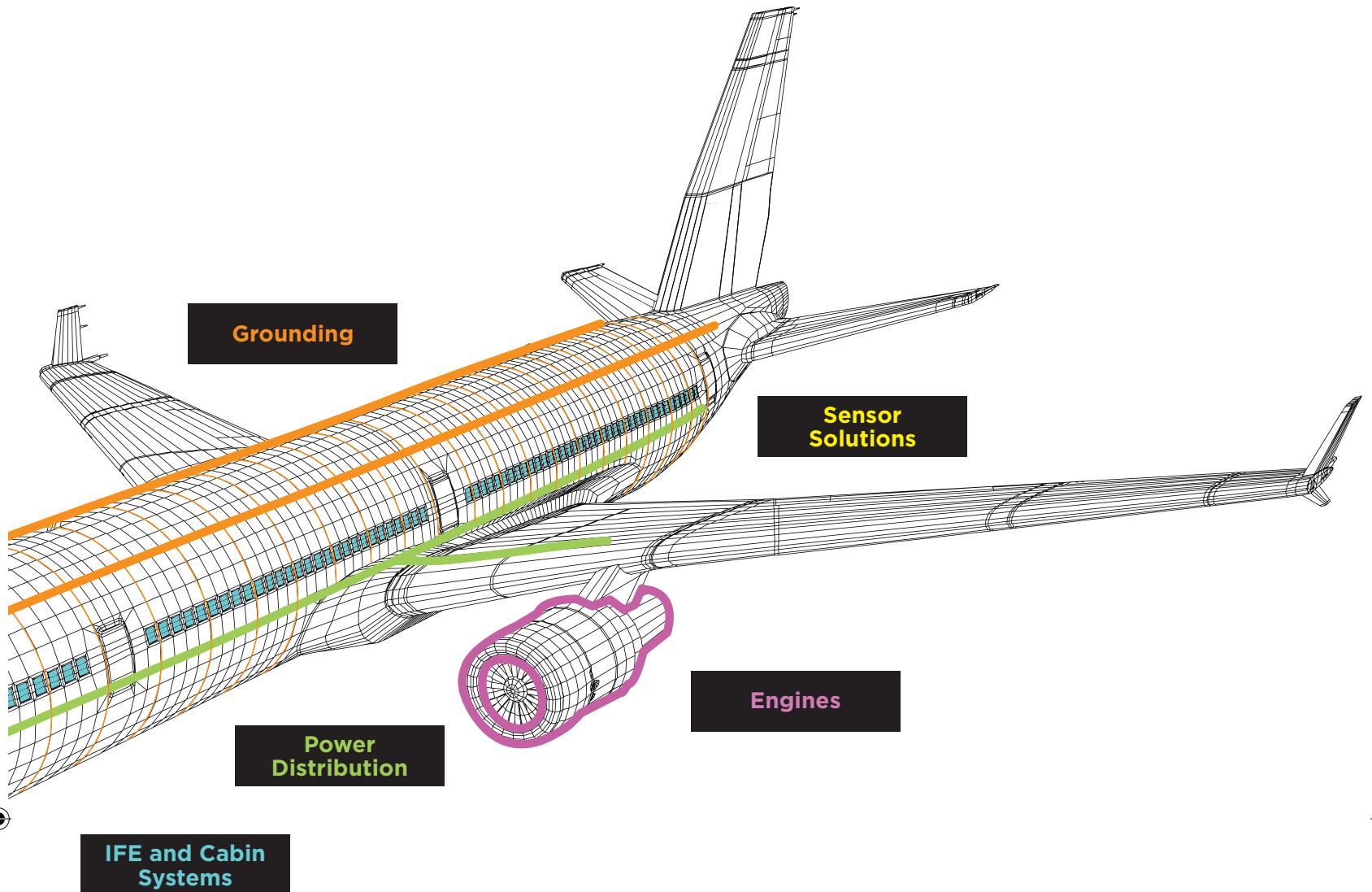
We are working with industry leaders to improve distributed avionics with concepts like the MiniMRP—with 40% smaller packages, lightweight composite enclosures, and high-speed connectivity



GROUNDING SYSTEM FOR COMPOSITE AIRFRAMES

We help solve the challenges of grounding composite aircraft bodies with system-level approaches to reliable bonding and grounding





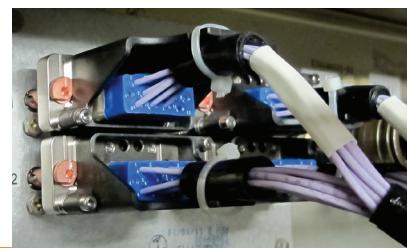
POWER DISTRIBUTION

Already used on major commercial aerospace platforms, our custom PDUs consolidate multiple contactors, circuit breakers, sensing and protective devices, and related components into modular packages



IN-FLIGHT ENTERTAINMENT

End-to-end connectivity solutions—from enclosures and connectors to cable and harnessing—enable space and weight savings with easy-to-install high performance



SENSOR ASSEMBLIES

As a leader in sensor technologies, we are able to provide integrated solutions that combine the needs of high accuracy and reliability with low weight and compact, convenient packaging from sensor to I/O connector



FASTER, SMARTER CONNECTIVITY FOR MORE INTELLIGENT AIRCRAFT

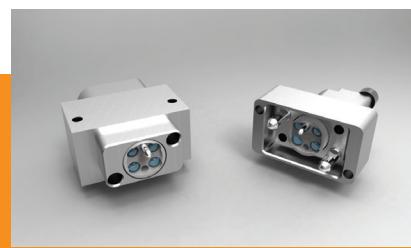
Higher Bandwidth for Advanced Avionics

In today's electronically sophisticated, networked aircraft, higher bandwidth enables the full capabilities of such sophistication to be realized. We support the high-speed needs of avionics to ensure optimal monitoring and control of all flight systems with advanced optics, Quadrax connectors and QUADLITE cable, and the next-generation of industry-standard connectors. Our high-speed backplane connectors support the needs of high-density, high-bandwidth electronics with flexible packaging options, high signal integrity, and a small footprint.



VITA 66/67 OPTICAL AND RF MODULES

Get more flexibility in VPX backplane applications with optical and RF connectivity to allow LRUs and LRMIs to be disconnected at the backplane. Our optical modules for VITA 66 support MT, ARINC 801, and expanded beam contacts, while VITA 67 RF modules support four or eight blindmate SMPM contacts



RUGGED OPTICAL INTERCONNECTS

Optical technology saves weight and space and offers inherent EMI immunity. We offer you more choice in single- and multichannel connectivity using precision 1.25 and 2.50 mm ceramic ferrules, expanded beam, and MT multifiber termini for both rectangular and circular connectors



HIGH-SPEED NETWORKING

Our high-speed copper solutions increase aerospace networking performance. TE's Quadrax contacts support 100-ohm Gigabit Ethernet and 150-ohm Fibre Channel. The system includes contacts, QUADLITE cable, and inserts for industry-standard circular and rectangular connectors





Solutions for Avionics

Connectors

- High-Speed Backplane Connectors
- Rack-and-Panel Connectors
- I/O Connectors
- Fiber Optic Products
- Microminiature and Nanominiature Connectors

Relays and Circuit Protection

- Signal-Level and Solid-State Relays
- Circuit Breakers

Wire and Cable

- Coaxial, Triaxial, Quadraxial Cable and Connectors
- High-Frequency Filtering-Effect Wire

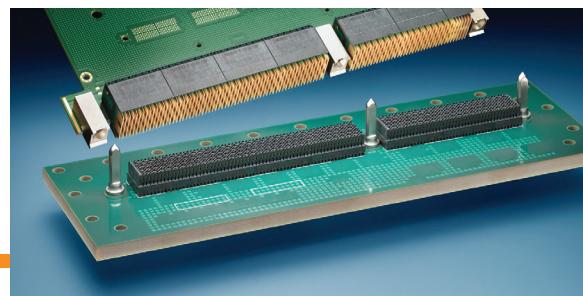
CEELOK FAS-T CONNECTORS

The smallest, field-repairable, 10G Ethernet connector for aerospace applications. CeeLok FAS-T connectors are ruggedized for excellent shock, vibration, temperature, and sealing performance, and feature an integral backshell for low cost, low-weight strain relief, and EMI protection.



MULTIGIG RT 2-R CONNECTORS

Ultra-rugged VITA 46-compatible connectors with quad redundant contacts for exceptional performance in high-vibration environments and supporting speeds to 10 Gb/s to extend the potential of VPX systems



ADD PERFORMANCE FROM SEAT TO GALLEY

Copper or Fiber at Gigabit Speeds

Boost the performance of any cabin with flexible in-flight entertainment, web access, automated galley systems, and high-speed networking. We can provide interconnection solutions based on standards such as ARINC 664, 809, 810, and 832 and GAIN and 4GCN to achieve the right combination of performance and flexibility, allowing cabins to be modularly configured for passenger convenience and comfort and for greater crew efficiency.

Save space, reduce weight and handle tight radii easily with our cable and connectors—designed to install faster, perform better, and increase in-cabin capabilities through plug-and-play of equipment.

RECTANGULAR CONNECTORS

Our comprehensive range of high-density rectangular connectors gives you the flexibility to meet virtually any interconnection need. Inserts support single-ended and differential signals, optical, power, and RF needs in a wide variety of combinations



DEUTSCH EN4165 MONOMODULE CONNECTORS

Designed for IFE applications and cabin systems, these light weight single module connectors feature lightweight composite housings and push-pull mating. They are available with a wide assortment of inserts for signal, power, optical, and high-speed connectivity. They have become the standard for 3GCN and 4GCN interconnections



DEUTSCH 369 SERIES CONNECTORS

For applications such as lighting requiring fewer contacts per connector, the new 369 Series connectors feature aerospace-grade materials to meet stringent smoke, toxicity, flammability and sealing requirements





Solutions for Cabin Interiors and IFE

Connectors

- High-Speed I/O Connectors
- EN4165 and ARINC 809 Connectors
- Circular Connectors
- Fiber-Optic Connectors
- Galley Insert (GAIN) Connectors

Wire and Cable

- High-Speed Copper Cables
- Custom Multicore Cables
- Coaxial, Triaxial, Quadraxial Cable and Connectors

Networking

- CANbus Networking

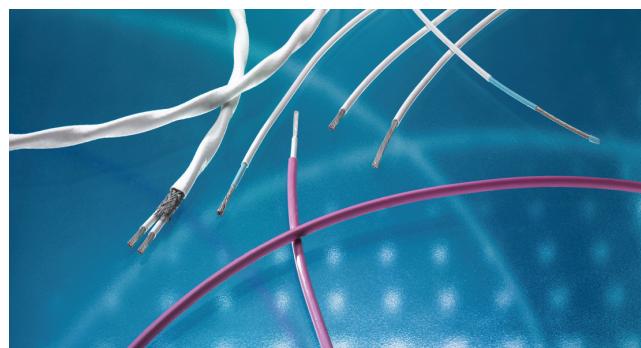
DEUTSCH CEELOK FAS-X CONNECTORS

CeeLok FAS-X connectors handle speeds of 10 Gb/s and more, making them the ideal choice for 10G Ethernet, IEEE 1394, USB 3.0 and other high-speed protocols. The termination and assembly is fast and straightforward, including the ability to field terminate and repair in as little as 5 minutes



HOOK-UP WIRE

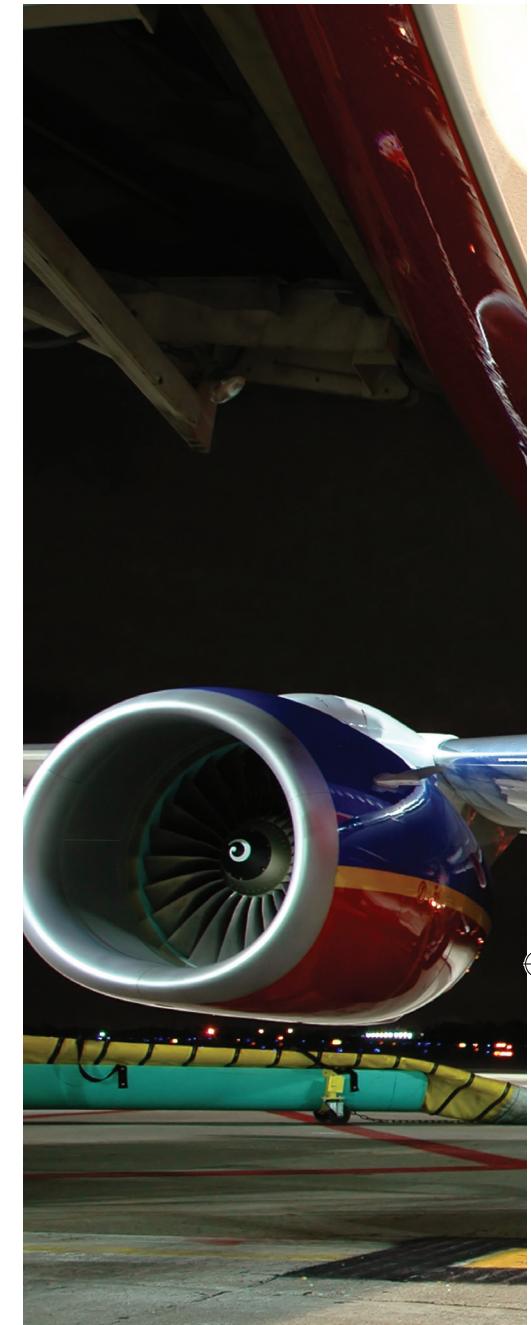
Our flight-ready hook-up wire sets new levels for reduced size and weight in single- and dual-wall constructions. With temperature ratings from -65°C to 200°C, low smoke and corrosive gas generation, and resistance to electrical arc tracking in both dry and wet conditions, our hook-up wire also offers excellent abrasion and cut-through resistance and flexibility



MANAGE DEMANDING ENVIRONMENTAL CONDITIONS

Performance for the Extremes

The demanding environments of engines, landing gear, and wings present challenges in temperature extremes, vibration, mechanical abuse, and potential exposure to hydraulic oils and other fluids. From sealed relays and sensors to rugged wire and cable, you will find products that perform better, install easier, and stand up to the stresses of flight. As traditional hydraulic and mechanical systems are replaced with sophisticated electronics, you need robust solutions that can withstand the severe conditions of flight while maintaining mechanical and electrical integrity. From initial design stages to aftermarket maintenance and upgrades, we will work with you to increase performance and lower costs.



RUGGED SEALED CABLE ASSEMBLIES

Integrated harnesses provide ready-to-install solutions that mean reliability in the toughest application environments. Every assembly meets your requirements for sealing, moisture and chemical resistance, shielding, strain relief, flexibility, and ease of use



FILTER CONNECTORS

By incorporating electronic components to provide EMI filtering or transient protection, superior performance can be obtained, with the additional benefits of saving space, weight and system cost



SENSORS

A full range of sensors, from components to custom-made assemblies, like the steering feedback sensor pictured below, make use of titanium and carbon fiber to reduce weight and contactless design to withstand the temperature, shock, and vibration of flight





Solutions for Wings, Landing Gear, and Engines

Connectors

- High-Temperature, Vibration-Resistant Circular Connectors
- Hermetic Connectors

Contactors

- High-Power and High-Voltage Contactors
- Solenoids
- Sensors

Harnessing

- Heat-Shrink Tubing and Molded Parts
- Firewall Feedthroughs and Conduit Systems
- Identification and Hydraulic System Labels

Wire and Cable

- High-Temperature Wire and Cable

DEUTSCH 983 SERIES CONNECTORS - ESC10 - BACC63

High-vibration connector with anti-decoupling device for high temperature areas and harsh environments. The connectors are available with or without an integral backshell



RAYCHEM SHF-260 CABLE

With a rating of 260°C, SHF-260 highly flexible cable can be bent and routed in extremely tight areas where conventional wire often wrinkles or cracks, and can be used for primary and secondary power distribution where high currents are needed



RUGGED AND CAPABLE FOR MAXIMUM RELIABILITY

Reduced Weight Increases Fuel Efficiency

With a large commercial aircraft containing upwards of 350 km of wiring, significant weight savings are possible with our thin-wall cables, rectangular and circular composite connectors, and optical interconnects. We put our expertise in materials science to work in creating cables and connectors that are smaller and lighter. Not only do they save space for easier routing, they open new possibilities for advanced capabilities such as fly by wire. All while giving you the robust mechanical and environmental performance needed.

Innovation for the Next Generation of Aerospace

We lead the industry in innovation by bringing together expertise in materials, processes, physics, and manufacturing. We use sophisticated computer modeling of the magnetic, thermal, mechanical, and electrical parameters of a design to ensure optimum performance. Then we engineer the product for easier use, longer reliability, and lower applied cost.



HIGH-TEMPERATURE DEVICES

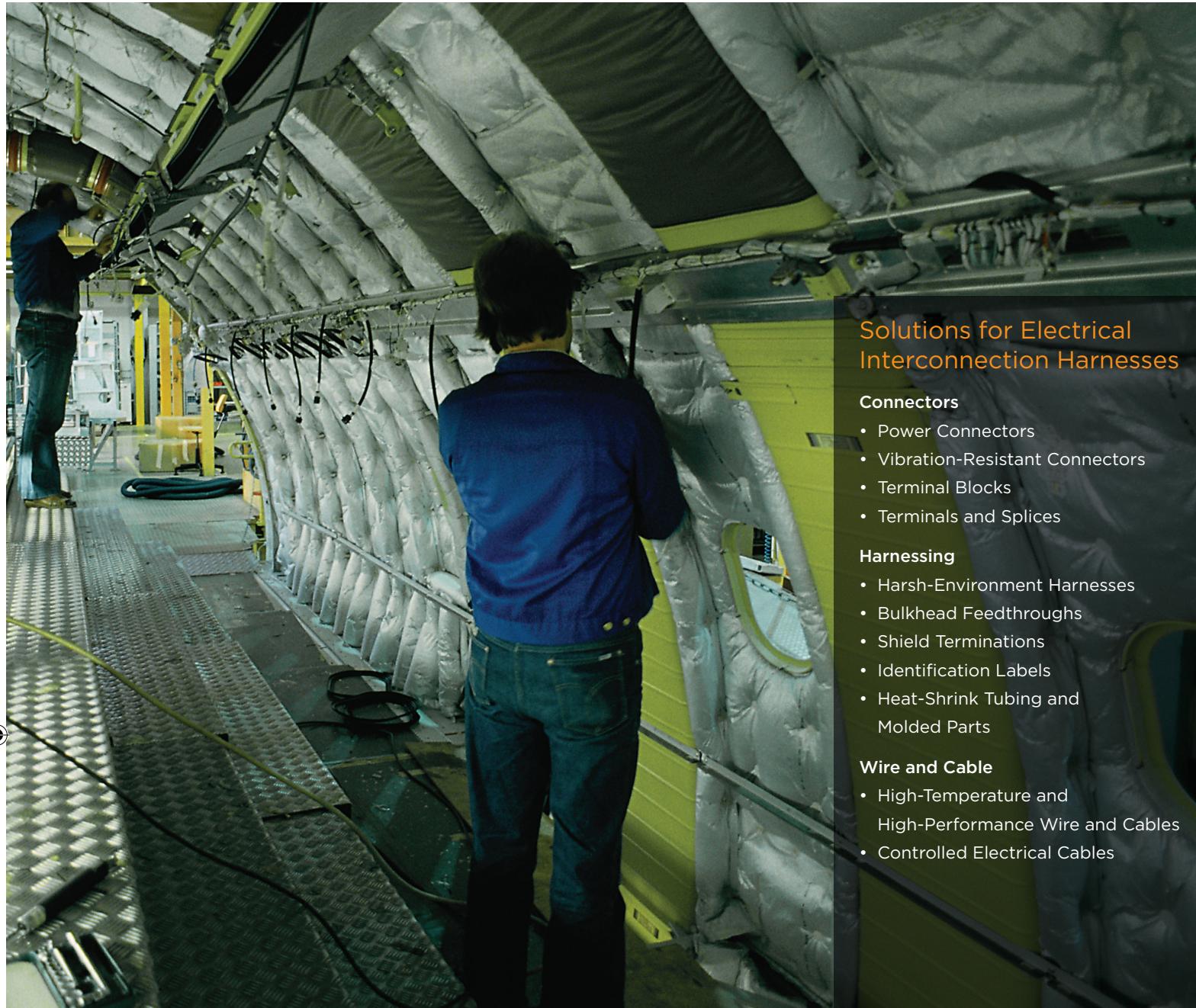
TE's shield termination devices provide environmentally protected shield termination on cables that are designed for applications requiring a maximum temperature rating of 200°C in the aerospace applications industry



POWER CONTACTORS AND RELAYS

Our lightweight contactors and relays handle high-power DC and AC needs. They are available hermetically or environmentally sealed, with a variety of electrical configurations, power ratings, voltage ratings, and mounting styles to make your electrical system more reliable and capable





Solutions for Electrical Interconnection Harnesses

Connectors

- Power Connectors
- Vibration-Resistant Connectors
- Terminal Blocks
- Terminals and Splices

Harnessing

- Harsh-Environment Harnesses
- Bulkhead Feedthroughs
- Shield Terminations
- Identification Labels
- Heat-Shrink Tubing and Molded Parts

Wire and Cable

- High-Temperature and High-Performance Wire and Cables
- Controlled Electrical Cables

DEUTSCH D-EASY FEEDTHROUGHS

For bundle and wire applications, D-EASY pressure-seal feedthroughs offer easy mounting and fast installation. The removable seal fitting allows rework of the seal in situ without wire removal. D-EASY feedthroughs are available with or without shielding protection and accessory interfaces. The overall housing is a lightweight composite, available unplated or nickel plated, with fluorosilicone gaskets and seals.



DEUTSCH WILDCAT 38999 AND MICRO CONNECTORS

Wildcat connectors provide the highest contact density in 38999 style connectors. The range is also complemented with a series of micro connectors for use where space is at a premium.



POLAMCO CONNECTORS AND BACKSHELLS

Our newest line offers a complete range of high-performance backshells for unshielded, shielded, and rugged conduit systems. Supporting one of the widest variety of Mil-Spec and COTS connectors, we have a solution for virtually every rugged, lightweight, and specialized need.





LET'S CONNECT

We make it easy to connect with our experts and are ready to provide all the support you need. Just call your local support number or visit www.te.com/industrial to chat with a Product Information Specialist.

Technical Support

te.com/support-center

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SMARTER SYSTEM-LEVEL SOLUTIONS THAT SAVE SPACE, REDUCE WEIGHT,
AND BOOST PERFORMANCE



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Consult TE for the latest dimensions and design specifications.

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