

Innovative Solutions With Matched TE Products Withstand High-Temperature, High-Vibration Environments



INTERCONNECTION RELIABILITY IN HARSH ENVIRONMENTS

REDUCE SWaP

- Size, weight, and power consumption
- Wide range of materials, configurations, constructions, and shielding options

MECHANICALLY ROBUST

- Extreme temperature, vibration, and mechanical performance
- Resistant to aircraft oils, fuels, and chemicals
- Components and systems built to handle the stresses of flight

FULLY INTEGRATED

- Easy installation and reduced system cost
- Rugged sealed cable assemblies and harnesses, ready to install
- Matched components and systems for excellent electrical and mechanical integrity

Built to Withstand Challenging Applications

TE Connectivity (TE) has extensive expertise in developing high-reliability connectors that provide high-temperature performance and high-vibration-resistance in packaging that is lighter, smaller, installs easier, and stands up to the stresses of flight.

From Connectors to Harnesses

We offer application-matched heat-shrink tubing and molded parts, adhesives, and cable insulation/jackets that can handle high temperatures, vibrations, fluids, and mechanical abuse of engines and other critical aircraft applications.

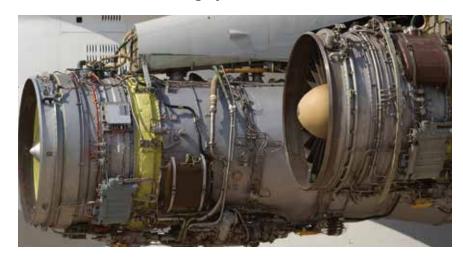
Helping You Reduce Costs

Reduce overall costs by working with TE. From shorter lead times to just-in-time delivery, we can make program planning more efficient.

Our products, too, are designed for lower costs, higher performance, and easier installation. Integrated solutions—such as cable harnesses, power distribution panels, and composite enclosures—decrease installation costs by giving you plug-and-go products built and tested to the highest standards.

Total Life-Cycle Support

From initial design stages to aftermarket maintenance and upgrades, we will work with you to provide robust connectors to help withstand the severe conditions of aircraft engines while maintaining their mechanical and electrical integrity.



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

AMP | Agastat | CII | Hartman | Kilovac | Microdot | Nanonics | Polamco | Raychem | Rochester | DEUTSCH

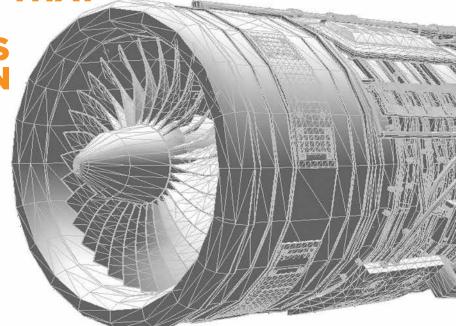
SEACON Phoenix | L.L. Rowe | Phoenix Optix | SEACON

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



HARSH-ENVIRONMENT

ENDURES HIGH TEMPERATURES AND VIBRATION



CONNECTORS



DEUTSCH 983 Series Connectors EN2997, ESC10, BACC63

Durable

- High-vibration, hightemperature connectors
- Temperatures as high as +260°C

Reliable

 Fine-threaded coupling with secure self-locking

Versatile

 Designed for engine, APU, and pylon applications



DEUTSCH 984 Series Connectors ESC11

- Mechanically and electrically scoop proof
- High vibration resistance, threaded coupling
- Wide temperature range: -65°C to +260°C



DEUTSCH 983-15 Series Connectors ESC15, EN2997

Saves Space and Weight

- Extension of 983 Series to include integrated backshell
- Designed for high-vibration, high-temperature areas to +260°C
- · Saves space and weight
- Anti-coupling device



DEUTSCH 984-16 Series Connectors FSC16

- Extension of 984 Series to include integrated backshell
- Designed for high-vibration, high-temperature areas to +260°C
- Saves space and weight
- Mechanically and electrically scoop proof



WIRE AND CABLE



Raychem SHF-60 Power Cable

Extremely Flexible

- High flex 6x bend radius
- Tight routing bends without jacket wrinkling or cracking

High Temperature

+260°C

Robust

- · Chemical and fluid resistance
- Corona and arc track resistant
- FAR Part 25 flammability



Raychem SPEC 55 PC Wire and Cable

Versatile

- Wide range of conductor materials, platings, and sizes
- Variety of shielding options

High Temperature

• -55°C to +200°C

Space and Weight Savings

Thin-wall cross-linked ETFE insulation and jackets

CONNECTORS



DEUTSCH DTS-K and DTS-S Series Connectors D38999 Classes K and S

Ultra-Rugged

- Withstands most severe vibration, corrosive, and hightemperature environments
- High-vibration-resistant connector
- Over-travel system
- · Anti-fire locking system



DEUTSCH Firewall Feedthroughs

Safer Reliability

- Titanium and stainless steel options
- Helps withstand fire without flame crossing
- Fire resistance: +1100°C for 20 min with direct flame
- Up to four 3/0 AWG wires



DEUTSCH 993 Series Connectors MIL-C-5015

Fire Resistant

- Rated to +350°C
- MIL-C-5015-style screwthreaded connectors
- Stainless steel shells and ceramic inserts
- Used with thermocouple contact for control measurements



DEUTSCH Contacts

High Vibration Resistance

- Energy band springs maintain electrical continuity
- Designed for D38999, EN2997, and ESC connectors
- Secures electrical continuity and behavior during vibration

X

HARNESSING



DEUTSCH Backshells

High Reliability

- Die-cast or machined stainless steel and aluminum materials
- Internal insulation coating for different temperatures (up to +350°C) to help prevent wire fretting

Versatile

 Full range for strain relief, shield termination, and sealing



Raychem High-Temperature Terminations

Versatile

 Crimp and controlled-solder splices and shield terminations

High Temperature

Rated to +200°C or +260°C

Environmentally Sealed

 Heat-shrinkable insulation sleeve for sealing and strain relief



Raychem System 25 Harnessing Components

Matched Components for Compatibility

 Tubing, molded parts, and adhesives

High Temperature

• -75°C to +150°C

Rugged

- Fluid resistant
- · Flame retarded
- Semi-rigid



Raychem System 200 Harnessing Components

Matched Components for Compatibility

Tubing, molded parts, tape, adhesives, and conduit

Very High Temperature

-55°C to +200°C

Rugged

- Fluid-immersion resistant
- Flame retarded
- Flexible



Raychem RT-555 Heat-Shrink Repair Tape

High Temperature

· Rated to 200°C continuous use

Fluid Resistant

Resists aviation hydraulic fluids

Easy to Use

- Convenient tape form
- 4 standard widths
- Use as a system with RT-555 sealing sleeves



Polamco Conduit Systems

Reliable

- Spin-coupling EMC and environmental conduit adaptor
- Integral environmental seal
- 360° shield termination feature for internal shield

Wide Range of Options

- Comprehensive choice of standard conduit materials
- Straight, 45°, 90° and custom angles



Polamco Backshells

Approved

 Approved by many engine and aircraft manufacturers

High-Vibration Resistant

- Anti-decoupling locking
- Internal PTFE coating for high-vibration wire protection



Sensors

Solutions for Every Need

- Pressure and temperature
- Speed and vibration
- Fluid properties

Capable

 Packaged for high-temp harsh environments

For More Information

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INNOVATIVE SOLUTIONS WITH MATCHED TE PRODUCTS WITHSTAND HIGH-TEMPERATURE, HIGH-VIBRATION ENVIRONMENTS



te.com/aircraftengines

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Consult TE for the latest dimensions and design specifications.

