HIGH-TEMPERATURE

ZONE 4

Engine and Gear Box

Adjacent to and interconnected with aircraft via engine pylon and the wing/body fairing

EWIS components exposed to high heat can experience accelerated degradation, insulation dryness, and cracking. Direct contact with a high-heat source can quickly damage insulation. Even lower levels of engine and gearbox heat can degrade the EWIS over time. Standard-construction cable harnesses used for interconnection of FADEC equipment or in areas of Zone 5 not in direct contact with the engine may incorporate material types capable of withstanding operating temperatures up to 200°C. Aircraft manufacturers prefer stainless steel connectors and accessories, and cabling shielded with temperature-resistant metallic braid. EWIS cabling transitioning from the engine and gearbox into the adjacent nacelle and pylon zone require pressure and temperature boundary sealing.

Zone 4 Application Guidelines	
Environmental Stress Factors	**Applicable RTCA/DO-160 Requirements**
Vibration	DO-160 Category S and H (Table 8-1)
Shock	DO-160 Category D, Test Procedure 1
Ground Survival Temperature	-65° to 200°C; DO-160 Category D3
Pressure Differential	Sea level to 50kft; DO-160 Category D3
Operating Temperature	-55° to 200°C; DO-160 category D3
Moisture	Exposure to humidity and condensation; DO-160 Category B

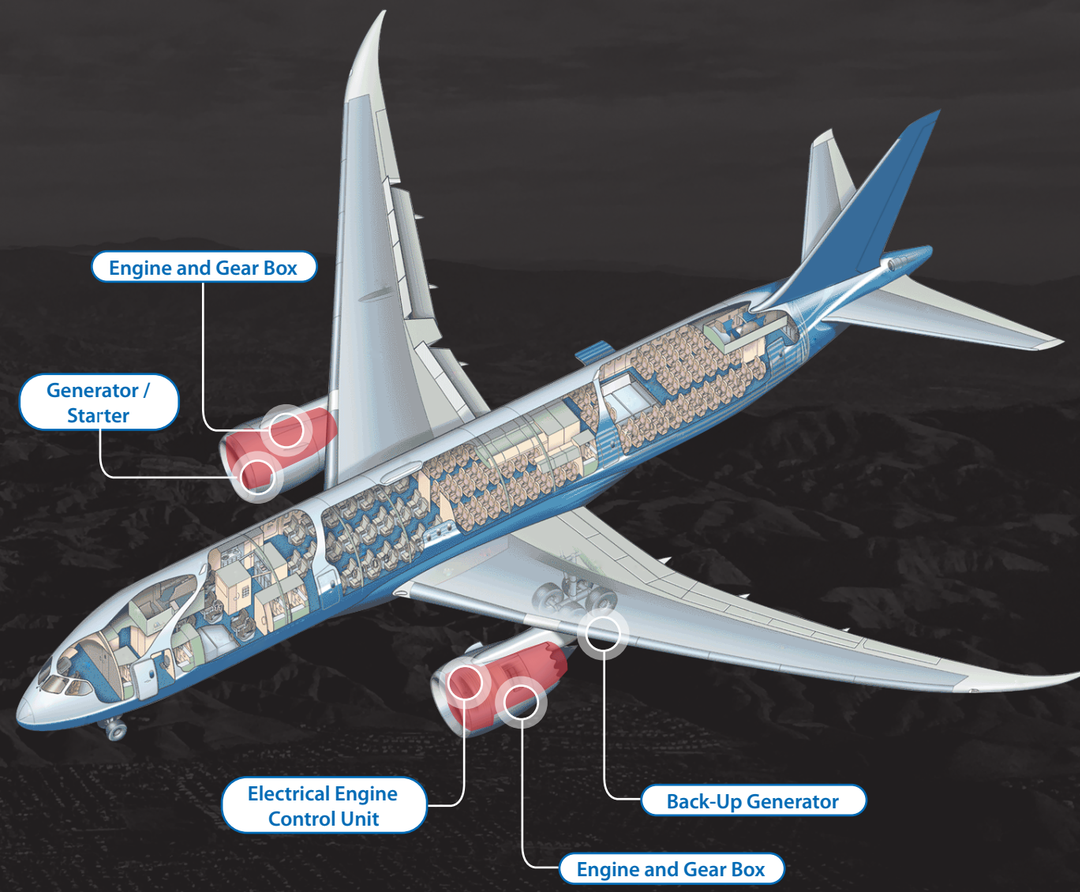
PowerLoad™ Connectors

- High-vibe, high-temp, high-density power connector series
- Ideally suited for backup generators in Zone 4 as well as power transmission throughout the aircraft
- Low-resistance contact delivers lower temperature rise under load
- Removable wire sealing grommet and wire separator for easy rear release of contacts and improved sealing of tape-wrapped wire

ZONE 4

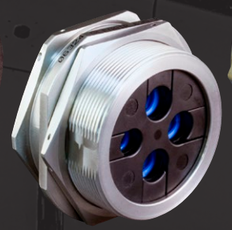
Engine and Gear Box

High-Temperature Interconnect Technologies for Power Distribution and Firewall Wire and Cable Feed-Thrus

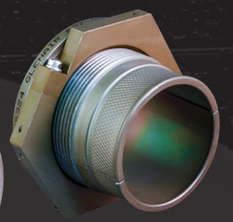


PRESSURE BOUNDARY, FIREWALL, AND SPLIT-SHELL FEED-THRUS

Pressure boundary composite feed-thru



Firewall pressure boundary feed-thru



EMI/RFI split-shell metal feed-thru

- High-grade engineering thermoplastic or machined metal
- Wide range of pressure-boundary feed-thru layouts with accommodation for 1 – 6 cables
- Split-shell jam nut versions with EMI/RFI shield termination porch
- O-ring sealed panel and box mounting interface