

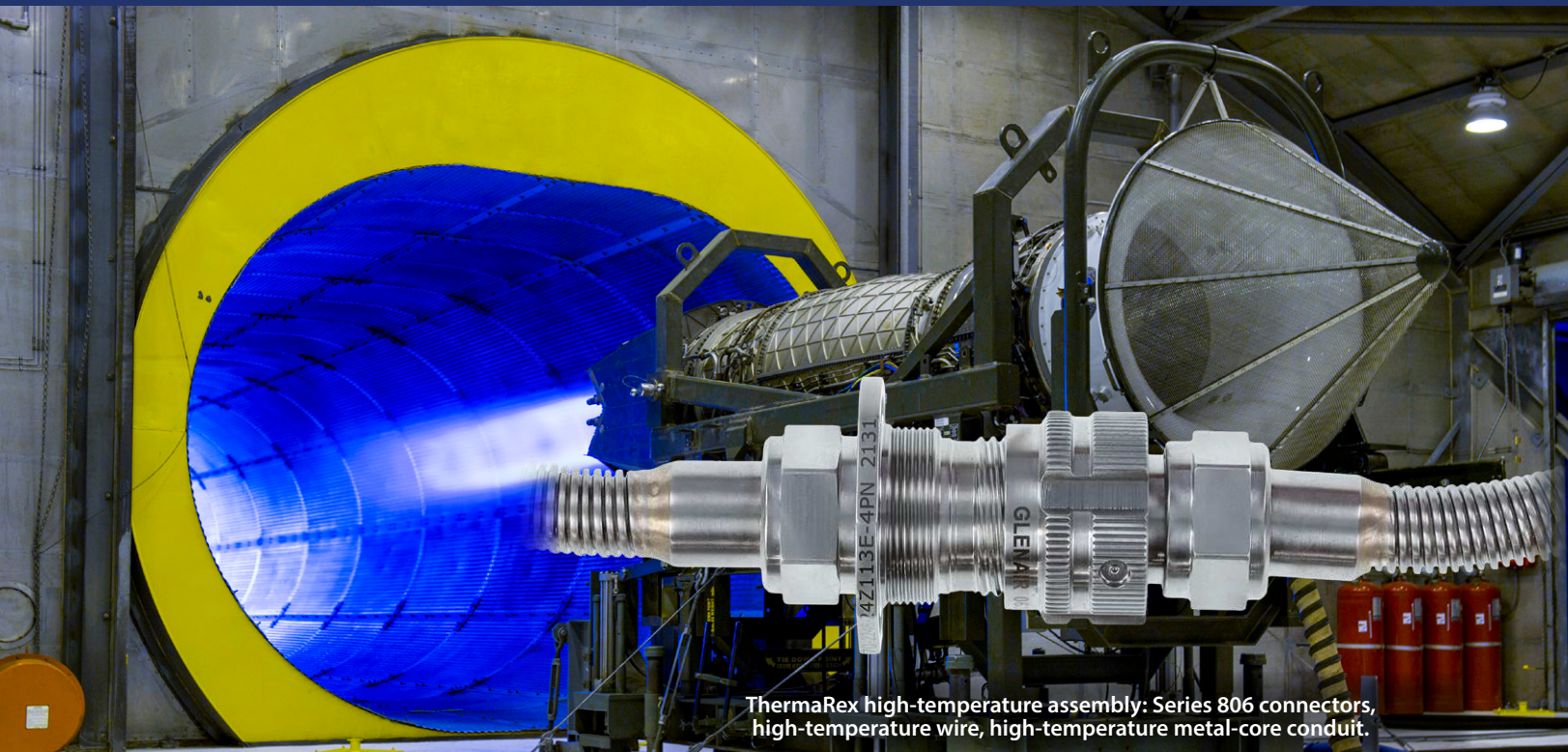
OPTIMIZED
FOR USE WITH

MIL-STAR
HIGH-PERFORMANCE HOOKUP WIRE AND CABLE

ThermaRex™

CRYOGENIC • HIGH-TEMPERATURE

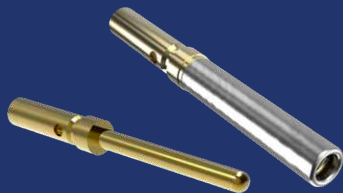
Cryogenic and high-temperature tolerant
connectors, cables, and conduit systems



ThermaRex high-temperature assembly: Series 806 connectors, high-temperature wire, high-temperature metal-core conduit.

Sensor devices in aerospace engine applications are increasingly exposed to higher temperature operating environments. Rugged sensors in FADEC equipment—an extreme high temperature environment—are also exposed to temperature extremes well beyond the capabilities of conventional interconnect devices. Glenair ThermaRex interconnect solutions are designed to survive and excel in high continuous operating temperature application environments up to 300°C.

HIGH-TEMPERATURE TOLERANT CROWN RING CONTACTS: THERMAREX™ HT SERIES



Glenair Signature Crown Ring contact series

provides reduced contact resistance,
superior conductivity, and higher
temperature tolerance than
conventional AS39029 contacts.

- Superior conductivity performance compared to beryllium copper contacts, across full temperature range
- Up to 60% lower contact resistance than AS39029 contacts (normalized, less wire)
- Contact bodies made from high-temperature and stress-relaxation-resisting non-Beryllium Copper material
- Stainless steel Crown Ring
 - Provides socket forces without stress relaxation at high temperatures
 - Moves socket spring function from socket body to ring, allowing use of high-conductivity copper
- Gold over nickel plating
 - Thicker plating than industry standards for reduced contact fretting and higher temperature endurance
 - Gold over nickel is “gold standard” for high-reliability aerospace contacts
- Crimp versions use standard industry tooling, including crimp die/locator and insertion/extraction tools (2AWG Crown Ring contacts require custom tooling)

TEMPERATURE-TOLERANT ThermaRex Interconnect Solutions



High-Temperature · Cryogenic

The ThermaRex product family includes connectors, cables, and wire protection conduit systems organized into two temperature ranges: ThermaRex HT (high-temperature) and ThermaRex Cryo.

300°C ThermaRex HT Connector



- Service rating up to 300°C
- Vibration-resistant threaded coupling
- High-temperature ceramic insulators and silicone seals
- Durable stainless steel construction
- Available in Series 806, SuperNine®, or Series 79 rectangular
- Utilizes Glenair Crown Ring contacts

600°C ThermaRex UHT Connector (in development, consult factory)



- 300°C to 600°C service range
- Vibration-resistant threaded coupling
- Specialized contacts, laser welds, and metal seals
- Utilizes ultra-high temperature flexible ceramic-insulated cable
- Ideal for nuclear and other extreme temperature applications

-195°C ThermaRex CRYO Environmental and Hermetic Connectors



Environmental



Hermetic

- Environmental-class service rating down to -195°C
- Vibe and shock at D38999 level, immersed in LN2
- Cryogenic temperature-resistant Duralectric K grommet and interfacial seals
- Cold temperature-resistant thermoplastic dielectric insulator
- Hermetic-class service rating -195°C to +200°C
- Series 806 micro-miniature high-density packaging
- Corrosion-resistant stainless steel shell construction
- Glass-to-metal hermetic seal leak rate $<1 \times 10^{-7}$ cc He / sec @ 1 ATM

Complementary ThermaRex Ecosystem Technologies



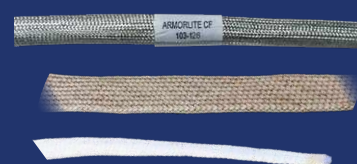
High- and low-temperature hookup wire and shielded twisted pair



High-temperature polymer-core wire protection conduit



Flexible stainless steel metal-core jacketed conduit



Three classes of HT and UHT flexible braided shielding