

MISSION-CRITICAL
INTERCONNECT
SOLUTIONS



Glenair
SIGNATURE SERIES



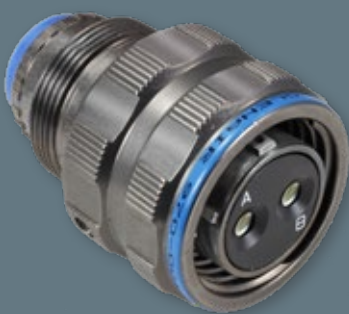
PowerTrip Advanced-Performance Power Connectors

Signature Interconnect Technology for Urban Air Mobility

ELECTRICAL POWER
PROPULSION SYSTEM
CONNECTORS,
CABLES, AND
ACCESSORIES



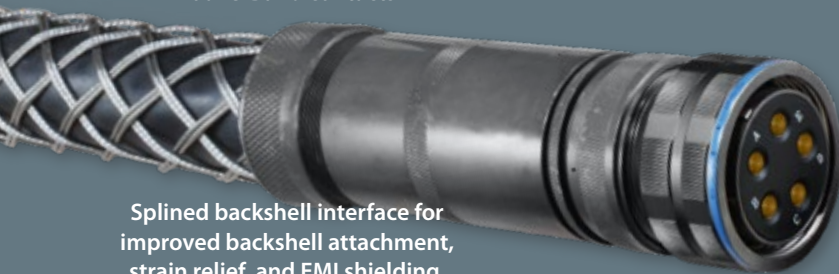
Series 970 PowerTrip high-density reduced size and weight power connectors—ideally suited for multi-phase brushless motor interconnection



Lightweight plug with ratcheting coupling nut and low-resistance LouverBand contacts



Keyed receptacle with superior sealing and EMI shielding



Splined backshell interface for improved backshell attachment, strain relief, and EMI shielding.

The Series 970 PowerTrip™ offers improved performance compared to industrial-grade power connectors including higher density, superior resistance to vibration and shock, lower resistance, and more. Designed explicitly for aerospace-grade power interconnect applications.

- Fast, easy mating with triple-start ACME thread: 360° turn for full mating
- Reduced size and weight compared to conventional industrial and/or aerospace solutions
- LouverBand sockets for improved current ratings; up to 2000 mating cycles
- Ratcheting coupling nut for secure mating and high vibration resistance
- Operating temperature -65° C to +200° C
- Hermetic and EMI filter options available

High-density, high-performance power connectors

SERIES 970 POWERTRIP™ CONNECTOR STYLES



Plug
970-001



Square Flange
Receptacles
970-003



Jam Nut Receptacles
970-004



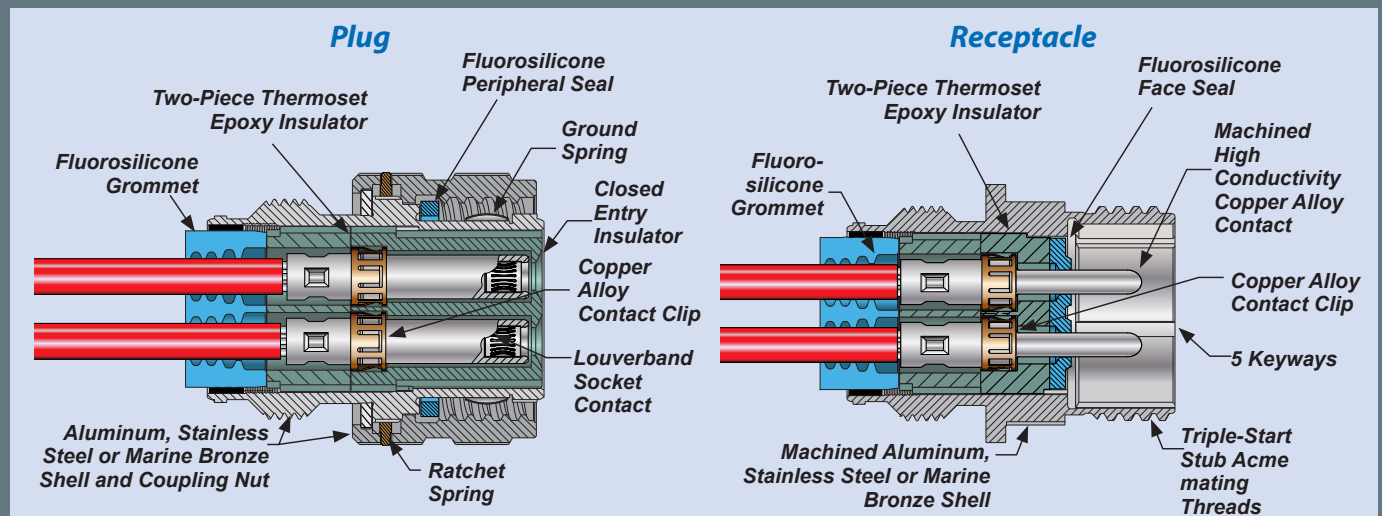
Cable Receptacles
970-005



Feed-Thru Bulkhead
970-006

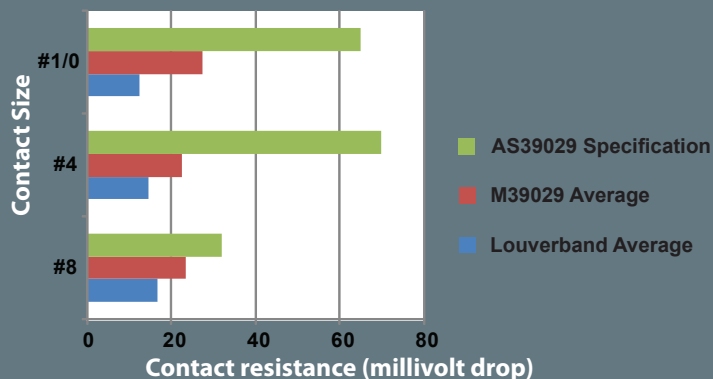


Hermetic Feed-Thru
Bulkhead
970-007



Series 970 PowerTrip™ Specifications	
Current Rating	Up to 225 A.
Dielectric Withstanding Voltage	2000 VAC
Insulation Resistance	5000 megohms minimum
Operating Temperature	-65° C. to +200° C.
Shock	300 g.
Vibration	37 g.
Shielding Effectiveness	65 dB minimum from 1GHz to 10GHz.
Durability	2000 mating cycles

CONTACT RESISTANCE AFTER 1000 MATING CYCLES



ABOUT THE POWERTRIP™ CONTACT SYSTEM

Series 970 contacts are precision-machined using high conductivity copper alloy. A stamped and formed spring ("LouverBand") is installed into the socket contact. The spring is made from 6 mil copper alloy. Testing has demonstrated that this contact system outperforms conventional industrial and aerospace-grade contact systems. The LouverBand spring provides many points of electrical contact with the mating pin, as opposed to a few "high spots" on a conventional four-finger contact as shown in the figure below. The size #8 Powertrip socket contact has a total of 18 louvers. The #4 has 27 louvers, and the #1/0 has 42 louvers. The LouverBand design offers lower voltage drop for reduced joule heating. In addition to its electrical advantages, the LouverBand also is mechanically superior to conventional four-finger contacts. The LouverBand spring has consistent, stable normal force, even when subjected to thousands of mating cycles and temperature extremes.



Conventional contact on the left,
LouverBand contact on the right



LouverBand socket
contact cutaway



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