The widest range of mission-critical interconnect technologies in the world





Series 970 PowerTrip®: The Next-Generation Power Connector for Extreme Environments

The Ultimate Marriage of "Trip 9" Packaging and High-Performance Power





MIL-DTL-5015 power arrangements

MIL-DTL-38999 high-density, precisionmachined packaging MIL-DTL-28840
Navy/shipboard sealing
and accessory
attachment

PowerTrip™





DESIGNER'S CHECKLIST				
	Triple-Start ACME Threads			
	Watertight Rubber Seals			
	High Shock and Vibration			
	High Temperature			
	EMI Protection			
	High Durability			
>	Low Resistance			
	Crimp, Snap-In Contacts			
	No. 1/0, 4 and 8 AWG			
	Improved Backshell Interface			
	Nickel-PTFE Plating			





# Series 970 PowerTrip® Specifications



SPECIFICATIONS				
Current Rating	Up to 400 A per contact			
Dielectric Withstanding Voltage	2000 VAC			
Insulation Resistance	5000 megohms minimum			
Operating Temperature	-65° C. to +200° C.			
Shock	300 G			
Vibration	43 G at 175° per D38999			
Shielding Effectiveness	65 dB minimum from 1GHz to 10GHz.			
Durability	2000 mating cycles			

MATERIALS AND FINISHES					
Shells, Jam Nuts	Aluminum alloy, stainless steel or marine bronze				
Contacts	High conductivity copper alloy, gold or silver-plated				
Insulators	Glass-reinforced epoxy				
Contact Retention Clip	Beryllium copper alloy				
Seal, O-rings, Grommet	Fluorosilicone rubber				
Spring	Nickel-plated beryllium copper				



## Series 970 PowerTrip® Benefits



- Provides high power in the smallest form factor
- Improved mechanical, electrical, and environmental performance from general Mil-Spec parts
- Versatile, fulfills many different applications
- Fast, easy mating 360° turn for full mating
- Reduced size and weight compared to 5015/VG95234 solutions

- LouverBand sockets for improved current
- Up to 2000 mating cycles
- Splined backshell interface for improved backshell attachment and EMI shielding
- Ratcheting coupling nut for secure mating
- Operating temperature -65° C to +200° C
- Hermetic and filter options available







### Comparison to D38999 and 5015

	D38999	5015	PowerTrip™
Shell Size	9, 11, 13, 15, 17, 19, 21, 23, 25	8, 10, 12, 14, 16, 18, 20, 22, 24, 28, 32, 36, 40, 44, 48	18, 20, 24, 28, 32, 36, 40, 44
DWV (Sea Level)	SERVICE RATING M - 1300 SERVICE RATING N - 1000 SERVICE RATING I - 1800 SERVICE RATING II - 2300	INSTRUMENT - 1000 SERVICE RATING A - 2000 SERVICE RATING D - 2800 SERVICE RATING E - 3500 SERVICE RATING B - 4500 SERVICE RATING C - 7000	2000 VOLTS
Mating Cycle	500 CYCLES, EXCEPT 1500 CYCLES FOR CONTACT STYLE "H" OR "J"	100 CYCLES, EXCEPT 500 FOR AS34591 CONNECTORS	500 CYCLES

### Selection guide

- Cable-mount plugs and receptacles
- Panel-mount receptacles
- Filtered receptacles
- Environmental and hermetic feed-thru bulkhead receptacles

#### **Cable Mount Plugs and Receptacles**

Cable Plug with Accessory Threads 970-001



Cable Receptacle with Accessory Threads 970-005

Overmolded TurboFlex Cordsets





#### **Panel Mount Receptacles**

Square Flange Receptacle with Accessory Threads 970-003 Square Flange Receptacle, Low Profile 970-009 Square Flange Receptacle, Low Profile, O-ring 970-013 Square Flange Receptacle, Low Profile, PC Tails 970-008 Square Flange Receptacle, Hermetic 970-012











Jam Nut Receptacle with Accessory Threads 970-004 Jam Nut Receptacle, Low Profile 970-010

Filtered Jam Nut Receptacle 240-970J Filtered Square Flange Receptacle 240-970W









#### Feed-Thru Bulkhead Receptacles

Jam Nut Feed-Thru Receptacle 970-006 Hermetic Jam Nut Feed-Thru Receptacle 970-007









**Special configurations and assemblies** 



Flex termination Hermetically sealed

Blind mate

Cable with Kellums grip



### **The LouverBand Contact**

- High-conductivity copper body
- Beryllium copper spring
- Higher ampacity
- Size 1/0 thru size 16a





### The LouverBand Contact: Benefits

- Generates multiple contact points between two conducting surfaces
- Provides consistent and stable force after thousands of mating cycles
- Lowers contact resistance







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