

MISSION-CRITICAL  
INTERCONNECT  
SOLUTIONS



*Glenair*  
SIGNATURE SERIES

POWER  
LOAD™ 

# High-Power Aircraft Connectors and Cables

High-Voltage, High-Frequency, and High-Current Solutions

AUGUST 2022



# POWER High-Power Aircraft LOAD™ Electrical Connectors

With high current carrying capacity Crown Ring contacts and flexible TurboFlex® cabling



## The aircraft industry's most advanced power distribution interconnect

Electrical power generation technology in aircraft has evolved to meet modern requirements for higher power and lighter weight systems. Growing electrical power needs on commercial aircraft—and emerging eVTOL platforms—have caused major changes in power system architectures to accommodate peak-load stress factors in electrical wire interconnect (EWIS) cabling.

- **PowerLoad™**, the high-vibration, high-temperature interconnect optimized for higher-voltage, higher-altitude, and higher-frequency
- **TurboFlex®**, the Glenair signature high-flexibility power cable solution
- **Crown Ring** crimp, bus bar, and lug style contacts, optimized for high current carrying, high temperature performance.

### A GLENAIR SIGNATURE SOLUTION: CONNECTORS, CONTACTS, CABLES, ACCESSORIES, AND ASSEMBLIES

- For applications up to 2000 VAC / 1500 Hz, and from 150 – 800 Amps.
- 230°C maximum operating temperature connectors (stainless steel bodies and shells)
- TurboFlex® rope lay power cables optimized for PowerLoad™ connectors, from 8 AWG to 4/0
- Ultra-flexible cable configurations with ruggedized Duraelectric or FEP jacketing:
  - Single-wall hookup wire
  - Dual-wall jacketed interconnect cabling
- High-temperature Crown Ring contact technology
- Patented wire sealing grommet
- Heavy-duty accessory interface



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**THE POWERLOAD ECOSYSTEM**

Solution overview and performance data



Fully tested and qualified, PowerLoad technical data includes:

- PowerLoad ecosystem solution performance overview
- Compression grommet series technical specifications
- **Crown Ring contact** current carrying capacity tables
- Series performance specifications and test reports
- Contact arrangements and polarization

**POWERLOAD CONNECTORS**

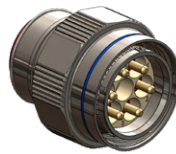
Crimp contact series with compression grommet for TurboFlex or tape-wrapped wire



- 972-101** Plug with banding backshell
- 972-102** Wall-mount receptacle with banding backshell
- 972-103** Jam-nut receptacle with banding backshell
- 972-203** Feed-thru receptacle, jam-nut mount
- 850-150** and **-151** Crown Ring contacts

**POWERLOAD CONNECTORS**

Bus bar / lug contact series with bonded grommet for use with TurboFlex extruded wire



- 972-011** Plug with banding platform
- 972-012** Wall-mount receptacle with banding platform
- 972-013** Jam-nut receptacle with banding platform
- 850-323** and **-324** bus bar/lug contacts

**POWERLOAD ACCESSORIES**

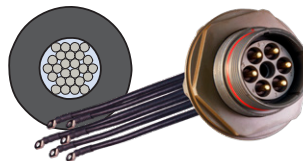
Heavy-duty for large power cables



- 390PX055** EMI/RFI Environmental Backshell, St., 45°, 90°
- 4470PXS1128** Compression Backshell with Band Platform
- 770-001S** Environmental heat shrink boots
- 660-128** PowerLoad receptacle protective cover
- 660-129** PowerLoad plug protective cover
- 930-026** Gasket for flange-mount connectors
- 600-289** Connector holding tools
- 600-286** "Crow's Foot" plug-to-receptacle torquing wrench
- 600-288** "Crow's Foot" backshell torquing wrench

**TURBOFLEX HOOKUP**

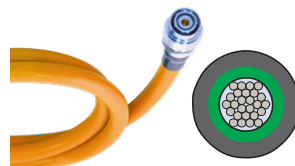
Cabling with FEP and Duraelectric insulation



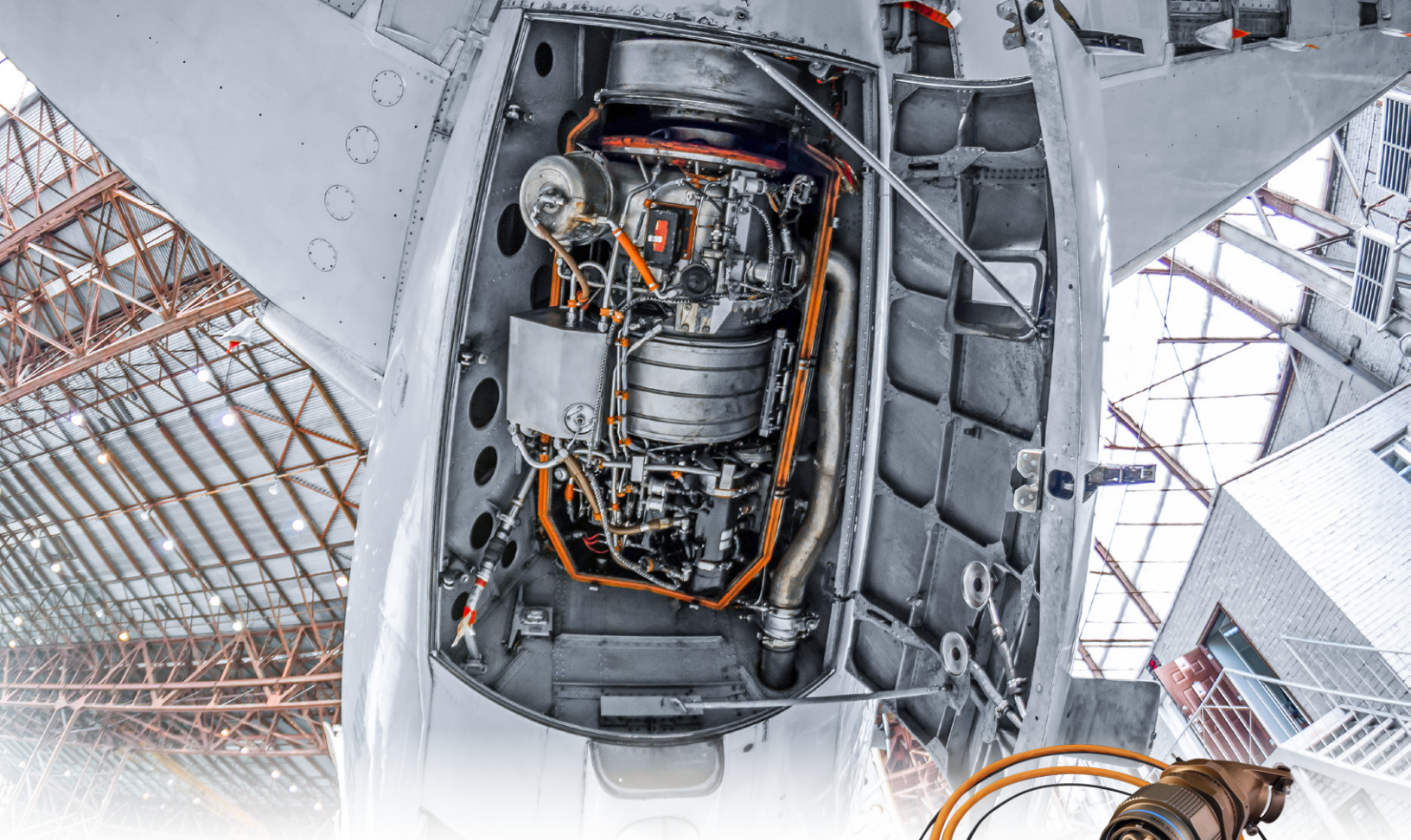
- 961-102-2000** FEP insulation, 2000 VAC
- 961-106-1500** Duraelectric insulation, 1500 VAC
- 961-106-2000** Duraelectric insulation, 2000 VAC
- 961-108-1500** Duraelectric Light insulation, 1500 VAC
- 961-108-2000** Duraelectric Light insulation, 2000 VAC

**TURBOFLEX INTERCONNECT**

Cabling with FEP and Duraelectric insulation



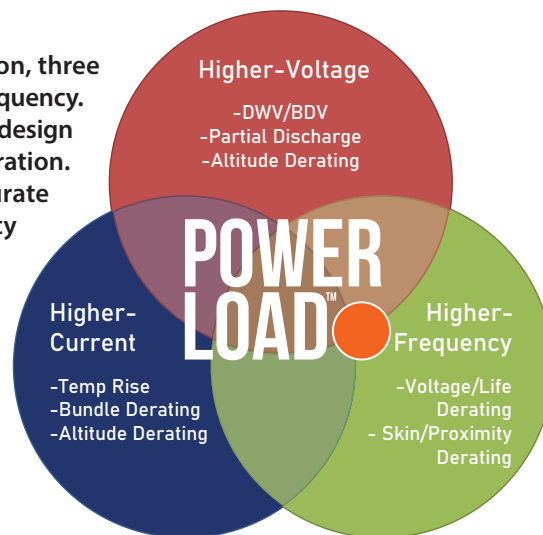
- 961-103-2000** FEP insulation, FEP outer jacket, 2000 VAC
- 961-104-2000** FEP insulation, Duraelectric outer jacket, 2000 VAC
- 961-107-1500** Duraelectric insulation, Duraelectric outer jacket, 1500 VAC
- 961-107-2000** Duraelectric insulation, Duraelectric outer jacket, 2000 VAC
- 961-109-1500** Duraelectric Light insulation and outer jacket, 1500 VAC
- 961-109-2000** Duraelectric Light insulation and outer jacket, 2000 VAC



## THE POWERLOAD ECOSYSTEM

# Optimized by Design for High-Voltage, High-Current, and High-Frequency

When specifying interconnect technology for aircraft power distribution, three main performance variables must be considered: voltage, current, and frequency. Higher voltage applications demand premium-quality insulation, careful design for partial discharge, and quality manufacturing to ensure reliable operation. Higher-current applications require detailed, peak-load analysis, accurate wire gauge selection, and high-temperature materials. Higher-frequency systems must be designed for accurate skin/proximity effect derating, incorporate comprehensive operating and peak voltage/current analyses, and perform in accordance with aircraft power generation and distribution electronics. Cable-to-contact termination must be exactly performed to eliminate voids that can potentially initiate partial discharge events. The Glenair PowerLoad ecosystem, with its highly engineered connectors, cables, and Crown Ring contacts ensures peak performance for every specification requirement in high-current, high-voltage, and high-frequency applications.

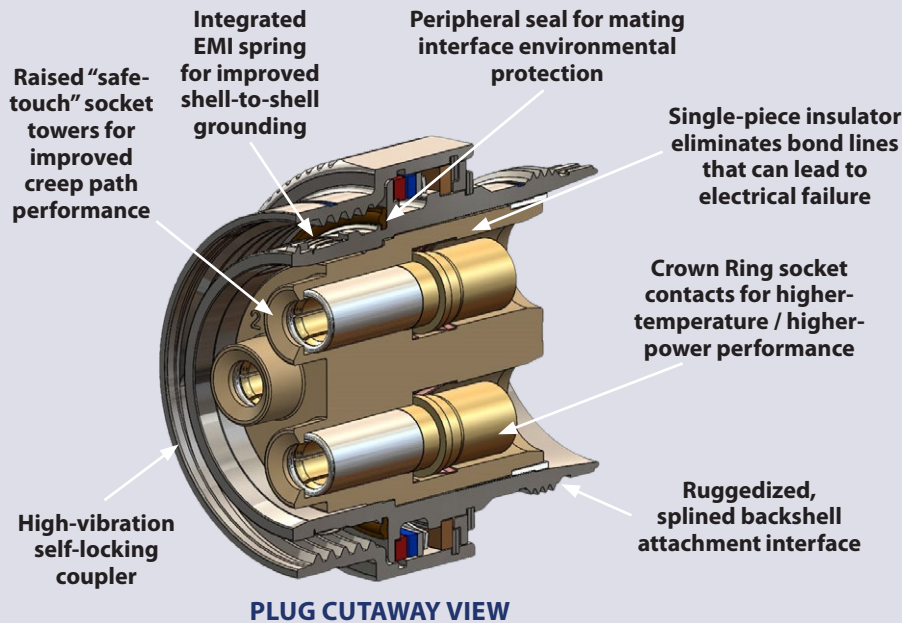




### Key performance attributes for Glenair Signature PowerLoad™ connectors, Crown Ring contacts, and TurboFlex® cable

INTRODUCTION

#### POWERLOAD™: KEY CONNECTOR AND CONTACT DESIGN FEATURES



#### GLENAIR SIGNATURE CROWN RING CONTACTS



- Crimp, bus bar, and lug wire termination
- Precision-machined high conductivity copper alloy
- Up to 60% lower contact resistance than equivalent AS39029 contacts
- Higher operating temperature resistance compared to other specialized high-power contacts
- Gold-plated for enhanced high-vibration durability

#### TURBOFLEX® ULTRA FLEXIBLE / RUGGED POWER CABLES WITH DURALECTRIC OR FEP JACKETING

TurboFlex, Glenair high-flexibility power cabling has been optimized for use with PowerLoad connectors, and is supplied with either industry-standard FEP or Glenair signature Duralectric jacketing material, which is optimized for fluid immersion, caustic chemical exposure, temperature extremes, and UV radiation. Both materials are available in a broad range of colors including safety orange.



Available with cable gauge selections from 8 AWG to 4/0, to provide suitable margins for DWV, frequency derating, and peak-load performance.

Abrasion Resistance	Good
Wear Resistance	Good
Flame Resistance	Excellent
Sunlight Resistance	Excellent
Flex Resistance	Excellent

#### TURBOFLEX® WITH DURALECTRIC™ JACKETING: ENVIRONMENTAL PERFORMANCE

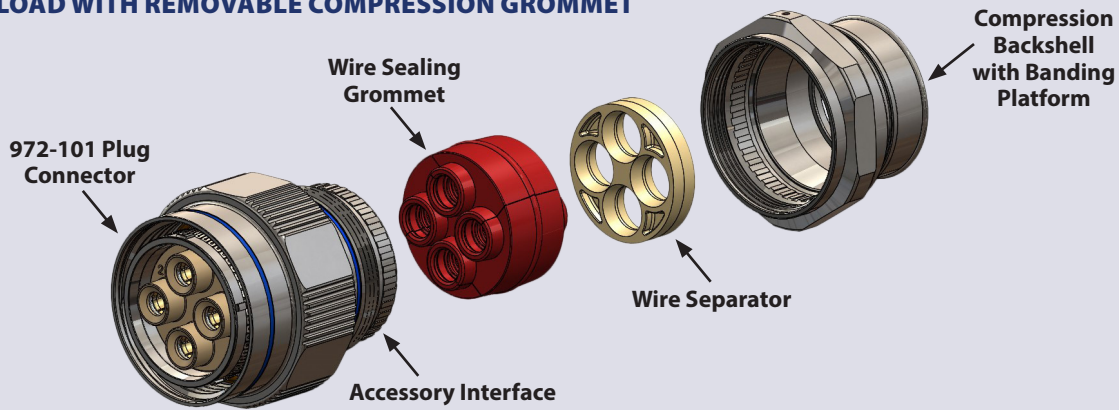
Temperature rating: -60°C to 200°C  
 Halogen free per IEC 60614-1  
 Accelerated weathering and simulated solar radiation at ground level per IEC 60068-2-5; 56 Days exposure, suitable for greater than 50 years of service in direct sunlight  
 Flame resistant per IEC 60614-1  
 Flame resistant per UL 1685, section 12 (FT4/IEEE120), vertical-tray fire-propagation and smoke release test  
 Flame resistant per FAR 25.853 (A) amendment 25-116, appendix F part I (A) (1) (i), 60 second vertical burn test  
 Limiting oxygen index of 45 per ISO 4589-2:1999  
 Low smoke per NES 711, smoke density of 11.75  
 Smoke density class F1 per NF F 16-101 IAW DIN EN 60695-2-11:2011

Low smoke toxicity per NES 713, tested value of 1.9  
 Fungus rating of 0 per MIL-STD-810G method 508.5, Does not support fungal growth  
 ASTM D624, die B tear strength, 150 pounds per inch minimum on jacket material  
 Low outgassing per ASTM e595 after post curing, TML .06%, CVCM .006%, WVR .02%  
 Resistant to fluids per MIL-STD-810F, method 504 JP-8 per MIL-DTL-83133 (NATO type 34)  
 MIL-H-5606 hydraulic fluid  
 MIL-PRF-23699 lubricating oil  
 MIL-C-85570 cleaner  
 TT-I-735 Isopropyl alcohol  
 AMS 1432 potassium acetate deicing/anti-icing fluid  
 MIL-C-87252 coolant  
 Amerex AFF fire extinguishing foam

Connector and contact exploded views and performance overview

INTRODUCTION

POWERLOAD WITH REMOVABLE COMPRESSION GROMMET



**High power capability**

- Superior current carrying capacity
- 100% DWV tested at 5,000 VAC (all arrangements)
- Single-piece insulator eliminates internal bond-lines
- Extended creepage distances with tower/recess interface design

**230°C max. operating temperature (stainless steel)**

- High-temperature PEEK thermoplastic insulators
- High-temperature silicone rubber for all seals
- Stainless Steel EMI spring provides excellent EMI shielding and shell-to-shell grounding at elevated temperatures

**High-temperature Crown Ring contact technology**

- Body is precision-machined from high conductivity copper alloy
- Up to 60% lower contact resistance than equivalent AS39029 contacts (normalized, less wire)
- Outstanding conductivity up to 260°C
- Gold plated for enhanced durability in high-vibration applications

**Patented, removable wire sealing grommet (US Patent 9356387)**

- Provides superior sealing on all wire, including tape-wrapped wire
- Allows for easy contact installation and removal
- Can also be used with extrusion insulated wire
- Connector fully sealed from moisture in submersed condition (altitude immersion)

**Heavy-duty accessory interface**

- Spline design ensures proper alignment of backshell during assembly
- Robust interface handles weight of large-gauge heavy wire

HIGH-TEMPERATURE TOLERANT CROWN RING CONTACTS



**Glenair Signature Crown Ring contact series**

provides reduced contact resistance, superior conductivity, and higher temperature-tolerance than conventional AS39029 contacts and specialized high-power contacts from other manufacturers

- Maximum operating temperature 260°C
- Superior conductivity performance compared to beryllium copper contacts, across full temperature range
- Up to 60% lower contact resistance than equivalent AS39029 contacts (normalized, less wire)
- Contact bodies made from high conductivity copper alloy (approximately 95% IACS)
- 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)



# Crown Ring high-voltage, high-current, and high-frequency contact resistance and temperature rise

INTRODUCTION

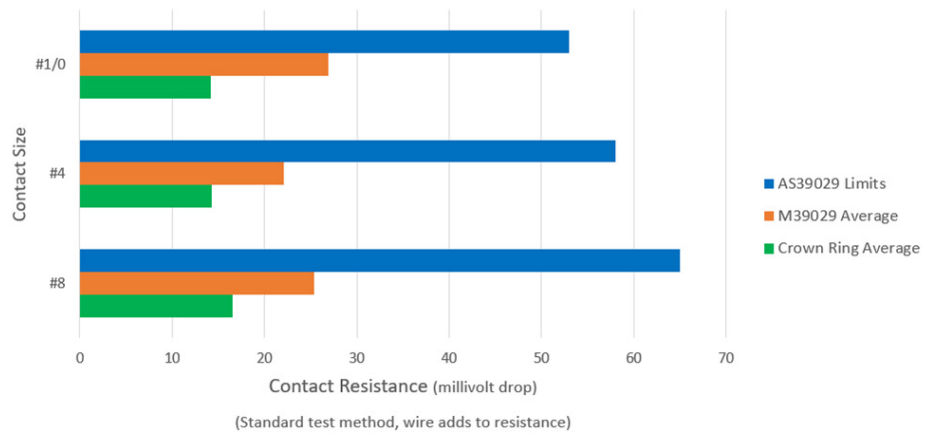
### CROWN RING CONTACTS MAXIMIZE CURRENT CARRYING CAPACITY

Current carrying capacity can be defined as the maximum level of current that a connector can handle, while keeping all the components of the connector at or below their maximum operating temperatures. Temperature rise is caused by the heat generated from current flowing against the resistance of the conductive path. The two main sources of resistance in a cable system are the bulk resistance of the wire and the contact junction within a pair of connectors.

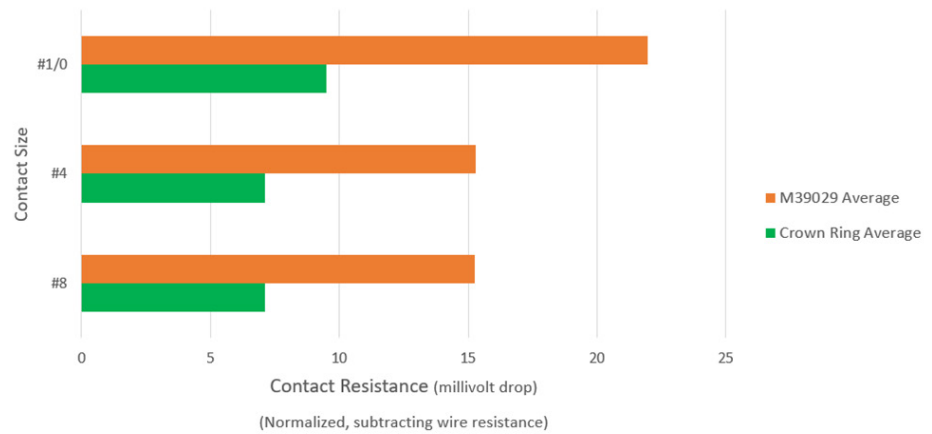
### CROWN RING CONTACTS MINIMIZE CONTACT RESISTANCE

In order to keep the temperature rise to a minimum, Glenair has developed its signature Crown Ring contacts for use in PowerLoad connectors and other Glenair power products. Crown Ring contacts are designed to minimize contact resistance, with the use of high conductivity copper. The results are contact resistance values that are 1/4 of the maximum limits of AS39029 and as much as 60% less than average M39029 contacts (see graphs here). Crown Ring contacts, with extremely low contact resistance, also exhibit lower temperature rise, when compared to standard M39029 contacts and specialized high-power contacts from other manufacturers.

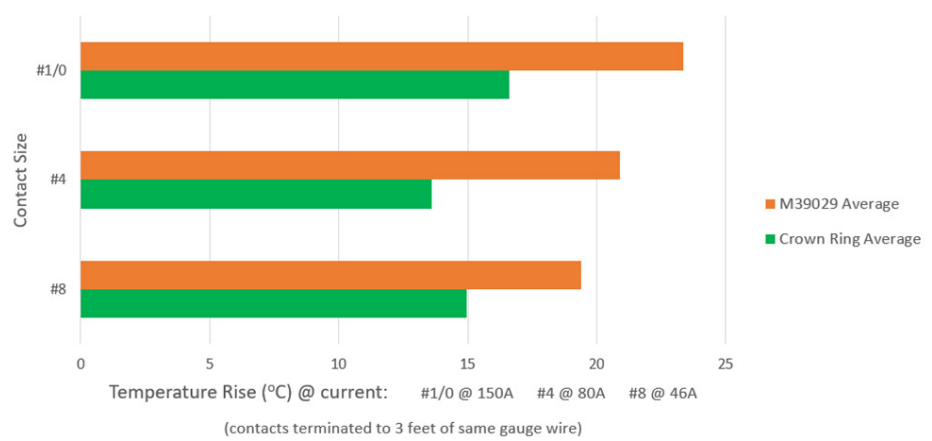
STANDARD CONTACT RESISTANCE (PER AS39029 TABLE 6)



CONTACT RESISTANCE AFTER SUBTRACTING RESISTANCE OF WIRE



TEMPERATURE RISE



High-voltage, high-current, and high-frequency current-carrying capacity: contacts and connectors

INTRODUCTION

**POWERLOAD CONNECTOR MATERIALS AND DESIGN MAXIMIZE CURRENT CARRYING CAPACITY**

PowerLoad connectors employ high performance, high-temperature materials throughout. This means that the interconnect system can withstand higher temperature rise than the typical Mil-Aero connector. In the case where the application can allow wire and connector temperatures to run at or near their rated temperatures (up to 230°C), PowerLoad connectors can handle even higher current levels than already afforded by the low-resistance Crown Ring contacts.

Current carrying capacity is an application-specific rating, requiring many system level inputs. Some of these inputs are: maximum ambient temperature(s), operating altitudes, physical environment (operating in enclosure or open air), cable construction/insulation and others.

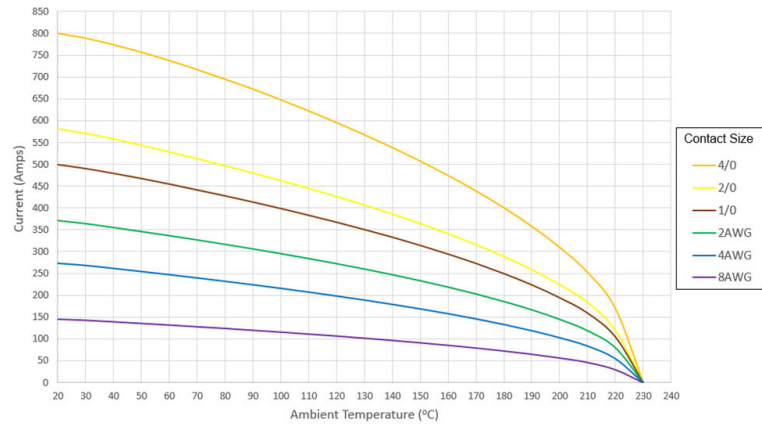
For most aerospace applications, Glenair suggests using SAE-AS50881 as a baseline for current carrying capacity for PowerLoad connectors. These baseline current levels are shown in the graphs here for single pin connectors. Glenair welcomes the opportunity to work with your team, to maximize the power delivered by PowerLoad connectors, for your specific application.

**HIGH CURRENT-CARRYING CONTACTS: PARTIAL DISCHARGE, HOT-SIDE CONNECTORS, AND “SAFE-TOUCH” DESIGN**

Glenair Series 972 PowerLoad connectors may be specified with pin or socket contact genders in plugs and receptacles. The raised socket contact towers serve to prevent partial discharge and arcing events. The design has the additional benefit of functioning as a “safe-touch” system on hot-side components, protecting the user when connectors are separated under load.

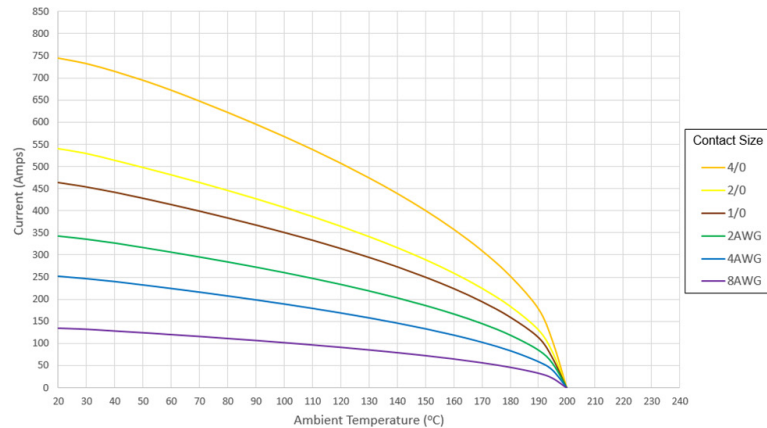


**MAX CURRENT CARRYING CAPACITY VS. AMBIENT TEMPERATURE: CROWN RING CONTACTS IN 230°C RATED SST POWERLOAD CONNECTORS**



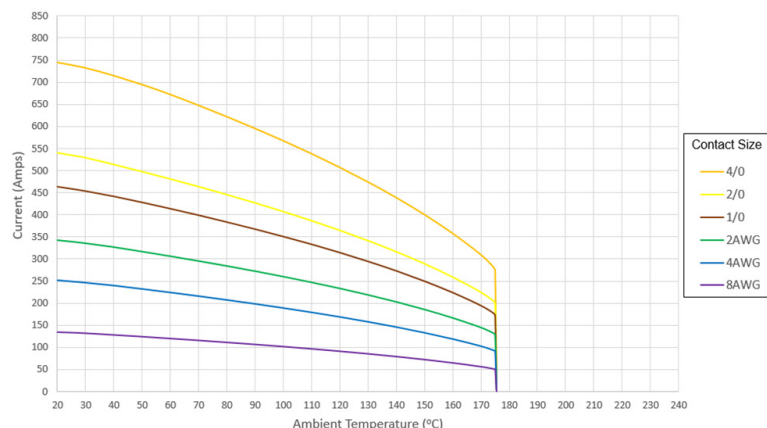
Data shown is for single contact at sea-level, in free air (ref AS50881)

**MAX CURRENT CARRYING CAPACITY VS. AMBIENT TEMPERATURE: CROWN RING CONTACTS IN 200°C RATED AL POWERLOAD CONNECTORS**



Data shown is for single contact at sea-level, in free air (ref AS50881)

**MAX CURRENT CARRYING CAPACITY VS. AMBIENT TEMPERATURE: CROWN RING CONTACTS IN 175°C RATED AL POWERLOAD CONNECTORS**



Data shown is for single contact at sea-level, in free air (ref AS50881)



Performance specifications summary

INTRODUCTION

POWERLOAD™ PERFORMANCE SPECIFICATION				
Test Description	Requirement			Procedure
Dielectric withstanding voltage (DWV)	Insert Arrangement	Altitude	Voltage	
	All Shown Herein	Sea level	5,000 Vac	
		50,000 ft	2,250 Vac	
Partial discharge, typical values	Inception/Extinction	Altitude	Voltage	
	PDIV	Sea level	4,500 Vac	
		15,000 ft	3,800 Vac	
		35,000 ft	3,000 Vac	
		50,000 ft	2,000 Vac	
		70,000 ft	1,000 Vac	
	PDEV	Sea level	3,700 Vac	
		15,000 ft	3,100 Vac	
		35,000 ft	2,500 Vac	
		50,000 ft	1,500 Vac	
70,000 ft		800 Vac		
5pc threshold (See GT-20-270 for full report)				
Insulation resistance at ambient	5000 megohms minimum			EIA-364-21, at 500 VDC
Insulation resistance at elevated temperature	400 megohms minimum at max. rated temp.			EIA-364-21, at 500 VDC
Contact resistance at 25°C, crimp contacts	Contact / Wire Size	Test Current Amperes	Voltage Drop (millivolts)	
			Initial Max	Crown Ring Typical
	0000	225	53	13
	00	185	48	11
	0	150	53	14
	2	100	43	12
	4	80	58	14
8	46	65	17	
AS39029 Para. 3.5.4 (Table 6), EIA-364-06				
Shell-to-shell conductivity	Finish Code	Shell Mat'l/ Finish	Millivolt Drop (mV)	
	ME	Al / EN	1.0	
	MT	Al / Ni-PTFE	2.5	
	NF	Al / OD Cad	2.5	
	ZR	Al / Zn-Ni	2.5	
	Z1	SST / pass.	10.0	
ZL	SST / Ni	1.0		
EIA-364-83				
Contact engaging /separation force	Contact forces shall meet AS39029 Table 9 requirements			AS39029 Para. 3.5.5, EIA-364-37
Temperature cycling (thermal shock)	No evidence of damage detrimental to the function of the connector			EIA-364-32, Method A, Duration A, Mated connectors, max/min temps in accordance with temperature rating of connector
Random vibration, 37.8 grms	No discontinuities of 1 microsecond or longer			EIA-364-28, Test Condition V, Letter J, Ambient, 8 Hrs, 2 Axis
Mechanical shock, 50g	No discontinuities of 1 microsecond or longer			EIA-364-27, Test Condition A

## Performance specifications and test summary

INTRODUCTION

POWERLOAD™ PERFORMANCE SPECIFICATION			
Test Description	Requirement		Procedure
Fluid immersion	No damage to plastic, elastomeric or bonding materials detrimental to the function of the connector. Connector shall mate and unmate properly and meet coupling torque and DWV requirements after immersion.		EIA-364-10 Various aviation fluids, fuels and oils (See GT-21-155)
Altitude immersion	At the end of the third cycle, while still submersed, connectors shall meet dielectric withstanding voltage and 1,000 megohms insulation resistance.		EIA-364-03 50,000 feet
Salt spray, dynamic	Finish Code	Shell Mat'l/ Finish	Hours
	ME	Al / EN	96
	MT	Al / Ni-PTFE	500
	NF	Al / OD Cad	500
	ZR	Al / Zn-Ni	500
	Z1	SST / pass.	1000
ZL	SST / Ni	1000	MIL-DTL-38999 Para. 4.5.13.2 EIA-364-26 150 mating cycles total

GT-20-277 POWERLOAD™ TEST SUMMARY					
Test Description	Test Specification	Result	Test Description	Test Specification	Result
Altitude Immersion	EIA-364-03	Pass	Firewall <sup>2</sup>	EIA-364-45	Pass
Backshell & Connector Durability	EIA-364-83	Pass	Insert Retention	EIA-364-35	Pass
Backshell Coupling Strength	–	Pass	Insulation Resistance at Ambient Temperature	EIA-364-21	Pass
Backshell-To-Connector Shell Conductivity	EIA-364-83	Pass	Maintenance Aging	EIA-364-24	Pass
Contact Engagement and Separation Forces	EIA-364-37	Pass	Post Test Examination	–	Pass
Contact Insertion and Removal Force	EIA-364-05	Pass	Shell-To-Shell Conductivity	EIA-364-83	Pass
Contact Resistance	EIA-364-06	Pass	Shock	EIA-364-27	Pass
Contact Retention (100%)	EIA-364-29	Pass	Temperature Cycling (thermal shock)	EIA-364-32	Pass
Corrosion (Dynamic)	EIA-364-26	Pass	Vibration, Random	EIA-364-28	Pass
Coupling and Uncoupling Torque	EIA-364-114	Pass	Vibration, Wing Tip	EIA-364-28	Pass
Dielectric Withstanding Voltage at Sea Level	EIA-364-20	Pass	Visual, Mechanical, and Workmanship Inspection	ASTM B 571	Pass

Unless otherwise noted, all testing performed on shell size 28 connectors with 6x size #8 contacts  
 Firewall testing performed separately on similar connectors, shell size 32 with 3x size 1/0 and 1x size #4 contacts



Contact arrangements

SHELL SIZE / CONTACT ARRANGEMENTS (FACE OF PIN INSERT)					
<b>16-A1</b> 1X #8	<b>16-1</b> 1X #4	<b>20-A1</b> 1X #2	<b>20-1</b> 1X #1/0	<b>22-1</b> 1X #2/0 [consult factory]	<b>22-2</b> 2X #8
<b>22-3</b> 3X #8	<b>24-1</b> 1X #4/0 [consult factory]	<b>24-2</b> 2X #4	<b>24-4</b> 4X #8	<b>28-2</b> 2X #2	<b>28-3</b> 3X #2
<b>28-4</b> 4X #4	<b>28-6</b> 6X #8	<b>32-2</b> 2X #1/0	<b>32-3</b> 3X #1/0	<b>32-4</b> 4X #2	
			<p>#8 #4 #2 #1/0 #2/0 #4/0</p> <p>Contact Size Key</p>		
<b>36-2</b> 2X #2/0 [consult factory]	<b>36-4</b> 4X #1/0	<b>40-3</b> 3X #2/0 [consult factory]			

PLUG POLARIZATION POSITIONS				
Position	A°	B°	C°	D°
<b>1</b>	76	148	212	284
<b>2</b>	135	170	200	310
<b>3</b>	49	169	200	244
<b>4</b>	66	140	200	257
<b>5</b>	62	145	180	280
<b>6</b>	79	153	197	272

RECEPTACLE POLARIZATION POSITIONS				
Position	A°	B°	C°	D°
<b>1</b>	76	148	212	284
<b>2</b>	135	170	200	310
<b>3</b>	49	169	200	244
<b>4</b>	66	140	200	257
<b>5</b>	62	145	180	280
<b>6</b>	79	153	197	272

# 972-101 Crimp-contact plug with banding platform and compression grommet accessory for TurboFlex or tape-wrapped wire

POWERLOAD CONNECTORS - CRIMP CONTACTS



972-101 Plug

### CONNECTOR FEATURES

- Socket towers for improved creep path performance
- Single-piece insulator eliminates bond lines that can lead to electrical failure
- High-vibration self-locking coupler
- High-temperature Crown Ring contact technology
- Patented wire sealing grommet
- Heavy-duty accessory interface

### POWER SPECIFICATIONS

- For applications up to 2000 VAC/ 1500 Hz, and from 150 – 800 Amps.
- 230°C maximum operating temperature (stainless steel bodies and shells)
- 100% DWV tested at 5,000 VAC (all arrangements)
- Up to 60% lower contact resistance than equivalent AS39029 contacts (normalized, less wire)

### MATERIAL SPECIFICATIONS

Insulators - PEEK thermoplastic, glass reinforced  
 Seals - high-temperature silicone  
 Contact body - high-conductivity copper alloy, gold plated  
 Socket contact hood, crown ring - stainless steel, passivated

HOW TO ORDER	
<b>Sample Part Number</b>	972-101 NF 32-3 P 1 A -LB
<b>Basic Part Number</b>	PowerLoad™ Plug with Banding Platform, Compression Grommet for Tape-Wrapped or TurboFlex Extrusion-Insulated Wire
<b>Material/Finish</b>	ME, MT, NF, ZR, Z1, ZL (See Table)
<b>Shell Size / Contact Arrangement</b>	See PowerLoad contact arrangements table
<b>Contact Gender</b>	P = Pin S = Socket (supplied with contacts) A = Pin, less contacts B = Socket, less contacts (see table if ordering contacts separately)
<b>Polarization</b>	1, 2, 3, 4, 5, or 6 (see Key Positions table)
<b>Wire Diameter</b>	See Wire Diameter table
<b>Backshell</b>	-LB = Less Backshell Omit to include (if ordering -LB less backshell, a separate backshell must be used)

SHELL SIZE / CONTACT ARRANGEMENTS (FACE OF PIN INSERT)					
16-A1 1X #8	16-1 1X #4	20-A1 1X #2	20-1 1X #1/0	22-1* 1X #2/0	22-2 2X #8
22-3 3X #8	24-1* 1X #4/0	24-2 2X #4	24-4 4X #8	28-2 2X #2	28-3 3X #2
28-4 4X #4	28-6 6X #8	32-2 2X #1/0	32-3 3X #1/0	32-4 4X #2	
36-2* 2X #2/0	36-4 4X #1/0	40-3* 3X #2/0	Contact Size Key * Consult Factory		

Wire Gauge (AWG)	TURBOFLEX WIRE DIAMETER CODE AND WIRE PART NUMBER (COMPRESSION GROMMET)										
	Single-Wall Hookup Wire					Dual-Wall Interconnect Cable					
	961-102-2000	961-106-1500	961-106-2000	961-108-1500	961-108-2000	961-103-2000	961-104-2000	961-107-1500	961-107-2000	961-109-1500	961-109-2000
8	A	B	A	B	A	+	+	A	+	A	+
4	B	B	A	C	B	+	+	A	+	A	+
2	B	B	A	C	B	A	A	A	+	A	A
0	B	B	A	B	B	A	A	A	+	A	A
00	C	∅	B	∅	B	B	B	B	A	B	A
0000	C	∅	A	∅	B	B	A	A	+	A	+

+: requires special termination, consult factory for how to order and terminate

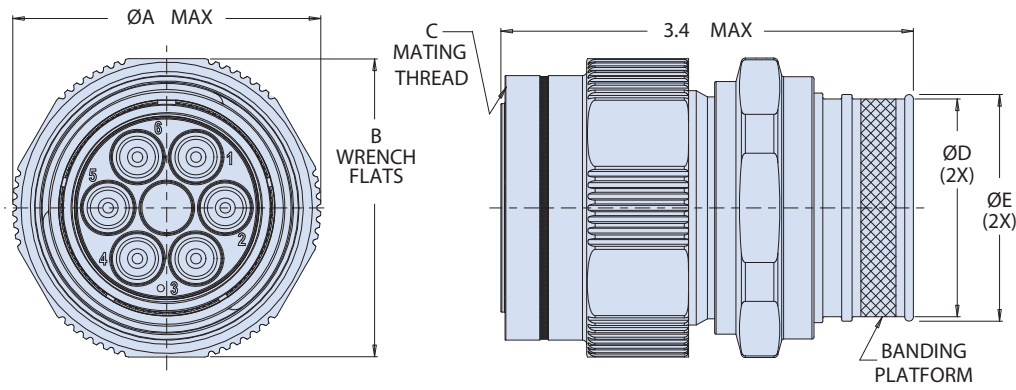


# PowerLoad™ Connectors

972-101 Crimp-contact plug with banding platform and compression grommet accessory for TurboFlex or tape-wrapped wire

POWERLOAD CONNECTORS - CRIMP CONTACTS

**CONNECTOR DIMENSIONS**



Shell Size	ØA Max	B Flat ±.006	C Mating Thread	ØD ±.015	ØE ±.015
16	1.47 (37.34)	1.375 (34.93)	1.000-0.1P-0.3L-TS-2B	.812 (20.62)	.875 (22.23)
20	1.72 (43.69)	1.625 (41.28)	1.250-0.1P-0.3L-TS-2B	1.062 (26.97)	1.125 (28.58)
22	1.85 (46.99)	1.750 (44.45)	1.375-0.1P-0.3L-TS-2B	1.187 (30.15)	1.250 (31.75)
24	1.97 (50.04)	1.875 (47.63)	1.500-0.1P-0.3L-TS-2B	1.312 (33.32)	1.375 (34.92)
28	2.22 (56.39)	2.140 (54.36)	1.750-0.1P-0.3L-TS-2B	1.562 (39.67)	1.625 (41.28)
32	2.62 (66.55)	2.500 (63.50)	2.000-0.1P-0.3L-TS-2B	1.812 (46.02)	1.875 (47.63)
36	2.88 (73.15)	2.750 (69.85)	2.250-0.1P-0.3L-TS-2B	2.062 (52.37)	2.125 (53.97)
40	3.07 (77.98)	2.938 (74.63)	2.500-0.1P-0.3L-TS-2B	2.187 (55.55)	2.250 (57.15)

**MATERIAL / FINISH**

Code	Material	Finish	Temp. Rating
ME	Aluminum	Electroless Nickel	-54°-+200°C
MT		Nickel-PTFE	-54°-+200°C
NF		Cadmium, OD	-54°-+175°C
ZR		Zinc-Ni, Black (Tri-Valent CR)	-54°-+175°C
Z1	Stainless	Passivate	-54°-+230°C
ZL	Steel	Electrodeposited Nickel	-54°-+230°C

**HOW TO ORDER CONTACTS AND CONTACT TOOLING (SOLD SEPARATELY)**

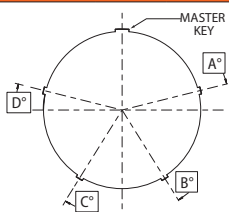
Contact Size	Contact P/N		Extraction Tool		Crimp Tool	Die Set	Locator
	Pin	Socket	Plastic	Metal			
8	850-150-08	850-151-08	859-136-08	859-139	859-025	859-026	859-029
4	850-150-04	850-151-04	859-136-04	859-138		859-027	859-030
2	850-150-02	850-151-02	N/A	859-171		859-169	859-170
1/0	850-150-0	850-151-0	N/A	859-137		859-028	859-031
2/0	850-150-00	850-151-00	N/A	859-225		859-230	859-231

**EXAMPLE CONTACT ARRANGEMENT CURRENT RATINGS**

Ins. Arr.	#8AWG 145 A <sup>1</sup>	#4 AWG 270 A <sup>1</sup>	#2 AWG 360 A <sup>1</sup>	1/0 490 A <sup>1</sup>
28-3			3X (156 A <sup>2</sup> )	
28-4		4X (104 A <sup>2</sup> )		
28-6	6X (49 A <sup>2</sup> )			
32-3				3X (210 A <sup>2</sup> )

<sup>1</sup> Absolute maximum current rating per SAE AS50881: single conductor, sea level, 205° temp rise (25° ambient to 230° C max for "Z1" connectors)  
<sup>2</sup> Derated current for typical applications per SAE AS50881: multiple conductors, 50,000 ft. altitude, 100°C temp rise

**PLUG KEY POSITIONS**



Position	A°	B°	C°	D°
1	76	148	212	284
2	135	170	200	310
3	49	169	200	244
4	66	140	200	257
5	62	145	180	280
6	79	153	197	272

## 972-102 Crimp-contact wall-mount receptacle with banding platform and compression grommet for TurboFlex or tape-wrapped wire

POWERLOAD CONNECTORS - CRIMP CONTACTS



**972-102 Receptacle**

### CONNECTOR FEATURES

- Socket towers for improved creep path performance
- Single-piece insulator eliminates bond lines that can lead to electrical failure
- High-temperature Crown Ring contact technology
- Patented wire sealing grommet
- Heavy-duty accessory interface

### POWER SPECIFICATIONS

- For applications up to 2000 VAC/ 1500 Hz, and from 150 – 800 Amps.
- 230°C maximum operating temperature (stainless steel bodies and shells)
- 100% DWV tested at 5,000 VAC (all arrangements)
- Up to 60% lower contact resistance than equivalent AS39029 contacts (normalized, less wire)

### MATERIAL SPECIFICATIONS

Insulators - PEEK thermoplastic, glass reinforced  
 Seals - high-temperature silicone  
 Contact body - high-conductivity copper alloy, gold plated  
 Socket contact hood, crown ring - stainless steel, passivated

HOW TO ORDER	
<b>Sample Part Number</b>	<b>972-102</b> NF 32-3 P 1 A -LB
<b>Basic Part Number</b>	PowerLoad™ Wall-mount receptacle with Banding Platform, Compression Grommet for TurboFlex or Tape-Wrapped wire
<b>Material/Finish</b>	ME, MT, NF, ZR, Z1, ZL (See Table)
<b>Shell Size / Contact Arrangement</b>	See PowerLoad contact arrangements table
<b>Contact Gender</b>	P = Pin S = Socket (supplied with contacts) A = Pin, less contacts B = Socket, less contacts (see table if ordering contacts separately)
<b>Polarization</b>	1, 2, 3, 4, 5, or 6 (see Keyway Positions table)
<b>Wire Diameter</b>	See Wire Diameter table
<b>Backshell</b>	-LB = Less Backshell Omit to include (if ordering -LB less backshell, a separate backshell must be used)

SHELL SIZE / CONTACT ARRANGEMENTS (FACE OF PIN INSERT)					
<b>16-A1</b> 1X #8	<b>16-1</b> 1X #4	<b>20-A1</b> 1X #2	<b>20-1</b> 1X #1/0	<b>22-1*</b> 1X #2/0	<b>22-2</b> 2X #8
<b>22-3</b> 3X #8	<b>24-1*</b> 1X #4/0	<b>24-2</b> 2X #4	<b>24-4</b> 4X #8	<b>28-2</b> 2X #2	<b>28-3</b> 3X #2
<b>28-4</b> 4X #4	<b>28-6</b> 6X #8	<b>32-2</b> 2X #1/0	<b>32-3</b> 3X #1/0	<b>32-4</b> 4X #2	
<b>36-2*</b> 2X #2/0	<b>36-4</b> 4X #1/0	<b>40-3*</b> 3X #2/0	Contact Size Key * Consult Factory		

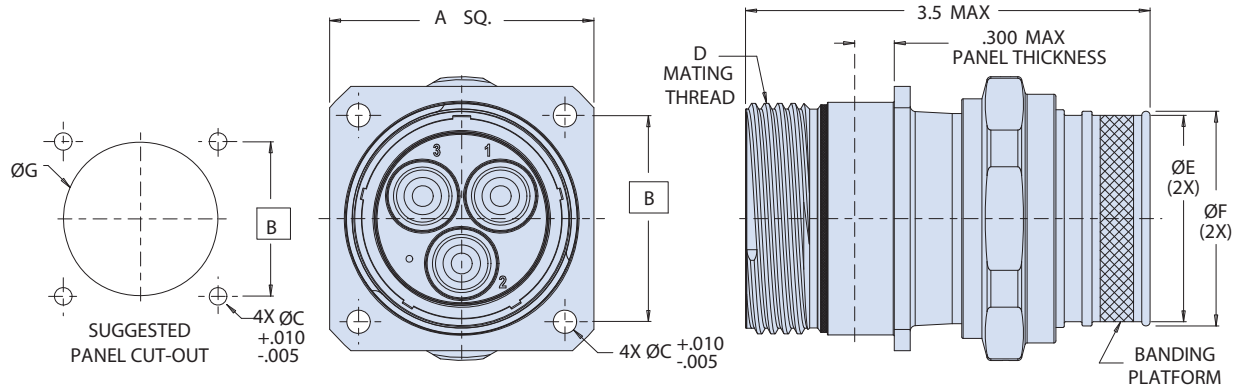
Wire Gauge (AWG)	TURBOFLEX WIRE DIAMETER CODE AND WIRE PART NUMBER (COMPRESSION GROMMET)										
	Single-Wall Hookup Wire					Dual-Wall Interconnect Cable					
	961-102-2000	961-106-1500	961-106-2000	961-108-1500	961-108-2000	961-103-2000	961-104-2000	961-107-1500	961-107-2000	961-109-1500	961-109-2000
8	A	B	A	B	A	+	+	A	+	A	+
4	B	B	A	C	B	+	+	A	+	A	+
2	B	B	A	C	B	A	A	A	+	A	A
0	B	B	A	B	B	A	A	A	+	A	A
00	C	∅	B	∅	B	B	B	B	A	B	A
0000	C	∅	A	∅	B	B	A	A	+	A	+

+: requires special termination, consult factory for how to order and terminate

972-102 Crimp-contact wall-mount receptacle with banding platform and compression grommet for TurboFlex or tape-wrapped wire

POWERLOAD CONNECTORS - CRIMP CONTACTS

CONNECTOR DIMENSIONS



Shell Size	A ±.031	B Bsc	ØC Typ	D Mating Thread	ØE ±.015	ØF ±.015	ØG ±.010
16	1.281 (32.54)	.969 (24.61)	.150 (3.81)	1.000-0.1P-0.3L-TS-2A	.812 (20.62)	.875 (22.23)	1.062 (26.97)
20	1.500 (38.10)	1.156 (29.36)	.177 (4.5)	1.250-0.1P-0.3L-TS-2A	1.062 (26.97)	1.125 (28.58)	1.312 (33.32)
22	1.625 (41.28)	1.250 (31.75)	.177 (4.5)	1.375-0.1P-0.3L-TS-2A	1.187 (30.15)	1.250 (31.75)	1.437 (36.50)
24	1.750 (44.45)	1.375 (34.92)	.177 (4.5)	1.500-0.1P-0.3L-TS-2A	1.312 (33.32)	1.375 (34.92)	1.562 (39.67)
28	2.000 (50.80)	1.562 (39.67)	.177 (4.5)	1.750-0.1P-0.3L-TS-2A	1.562 (39.67)	1.625 (41.28)	1.812 (46.02)
32	2.250 (57.15)	1.750 (44.45)	.209 (5.3)	2.000-0.1P-0.3L-TS-2A	1.812 (46.02)	1.875 (47.63)	2.062 (52.37)
36	2.500 (63.50)	1.938 (49.23)	.209 (5.3)	2.250-0.1P-0.3L-TS-2A	2.062 (52.37)	2.125 (53.97)	2.312 (58.72)
40	2.750 (69.85)	2.188 (55.58)	.209 (5.3)	2.500-0.1P-0.3L-TS-2A	2.187 (55.55)	2.250 (57.15)	2.562 (65.07)

MATERIAL / FINISH			
Code	Material	Finish	Temp. Rating
ME	Aluminum	Electroless Nickel	-54°-+200°C
MT		Nickel-PTFE	-54°-+200°C
NF		Cadmium, OD	-54°-+175°C
ZR		Zinc-Ni, Black (Tri-Valent CR)	-54°-+175°C
Z1	Stainless	Passivate	-54°-+230°C
ZL	Steel	Electrodeposited Nickel	-54°-+230°C

HOW TO ORDER CONTACTS AND CONTACT TOOLING (SOLD SEPARATELY)							
Contact Size	Contact P/N		Extraction Tool		Crimp Tool	Die Set	Locator
	Pin	Socket	Plastic	Metal			
8	850-150-08	850-151-08	859-136-08	859-139	859-025	859-026	859-029
4	850-150-04	850-151-04	859-136-04	859-138		859-027	859-030
2	850-150-02	850-151-02	N/A	859-171		859-169	859-170
1/0	850-150-0	850-151-0	N/A	859-137		859-028	859-031
2/0	850-150-00	850-151-00	N/A	859-225		859-230	859-231

RECEPTACLE KEYWAY POSITIONS				
Position	A°	B°	C°	D°
1	76	148	212	284
2	135	170	200	310
3	49	169	200	244
4	66	140	200	257
5	62	145	180	280
6	79	153	197	272

EXAMPLE CONTACT ARRANGEMENT CURRENT RATINGS				
Ins. Arr.	#8AWG 145 A <sup>1</sup>	#4 AWG 270 A <sup>1</sup>	#2 AWG 360 A <sup>1</sup>	1/0 490 A <sup>1</sup>
28-3			3X (156 A <sup>2</sup> )	
28-4		4X (104 A <sup>2</sup> )		
28-6	6X (49 A <sup>2</sup> )			
32-3				3X (210 A <sup>2</sup> )

<sup>1</sup> Absolute maximum current rating per SAE AS50881: single conductor, sea level, 205° temp rise (25° ambient to 230° C max for "Z1" connectors)  
<sup>2</sup> Derated current for typical applications per SAE AS50881: multiple conductors, 50,000 ft. altitude, 100°C temp rise



## 972-103 Crimp-contact jam-nut receptacle with banding platform and compression grommet for TurboFlex or tape-wrapped wire

POWERLOAD CONNECTORS - CRIMP CONTACTS



**972-103 Jam-Nut Receptacle**

### CONNECTOR FEATURES

- Socket towers for improved creep path performance
- Single-piece insulator eliminates bond lines that can lead to electrical failure
- High-temperature Crown Ring contact technology
- Patented wire sealing grommet
- Heavy-duty accessory interface

### POWER SPECIFICATIONS

- For applications up to 2000 VAC/ 1500 Hz, and from 150 – 800 Amps.
- 230°C maximum operating temperature (stainless steel bodies and shells)
- 100% DWV tested at 5,000 VAC (all arrangements)
- Up to 60% lower contact resistance than equivalent AS39029 contacts (normalized, less wire)

### MATERIAL SPECIFICATIONS

Insulators - PEEK thermoplastic, glass reinforced  
 Seals and o-ring- high-temperature silicone/N.A.  
 Contact body - high-conductivity copper alloy, gold plated  
 Socket contact hood, crown ring - stainless steel, passivated

HOW TO ORDER	
<b>Sample Part Number</b>	972-103 NF 32-3 P 1 A -LB
<b>Basic Part Number</b>	PowerLoad™ Jam-Nut receptacle with Banding Platform, Compression Grommet for TurboFlex or Tape-Wrapped wire
<b>Material/Finish</b>	ME, MT, NF, ZR, Z1, ZL (See Table)
<b>Shell Size / Contact Arrangement</b>	See PowerLoad contact arrangements table
<b>Contact Gender</b>	P = Pin S = Socket (supplied with contacts) A = Pin, less contacts B = Socket, less contacts (see table if ordering contacts separately)
<b>Polarization</b>	1, 2, 3, 4, 5, or 6 (see Keyway Positions table)
<b>Wire Diameter</b>	See Wire Diameter table
<b>Backshell</b>	-LB = Less Backshell Omit to include (if ordering -LB less backshell, a separate backshell must be used)

SHELL SIZE / CONTACT ARRANGEMENTS (FACE OF PIN INSERT)					
16-A1 1X #8	16-1 1X #4	20-A1 1X #2	20-1 1X #1/0	22-1* 1X #2/0	22-2 2X #8
22-3 3X #8	24-1* 1X #4/0	24-2 2X #4	24-4 4X #8	28-2 2X #2	28-3 3X #2
28-4 4X #4	28-6 6X #8	32-2 2X #1/0	32-3 3X #1/0	32-4 4X #2	
36-2* 2X #2/0	36-4 4X #1/0	40-3* 3X #2/0	Contact Size Key * Consult Factory		

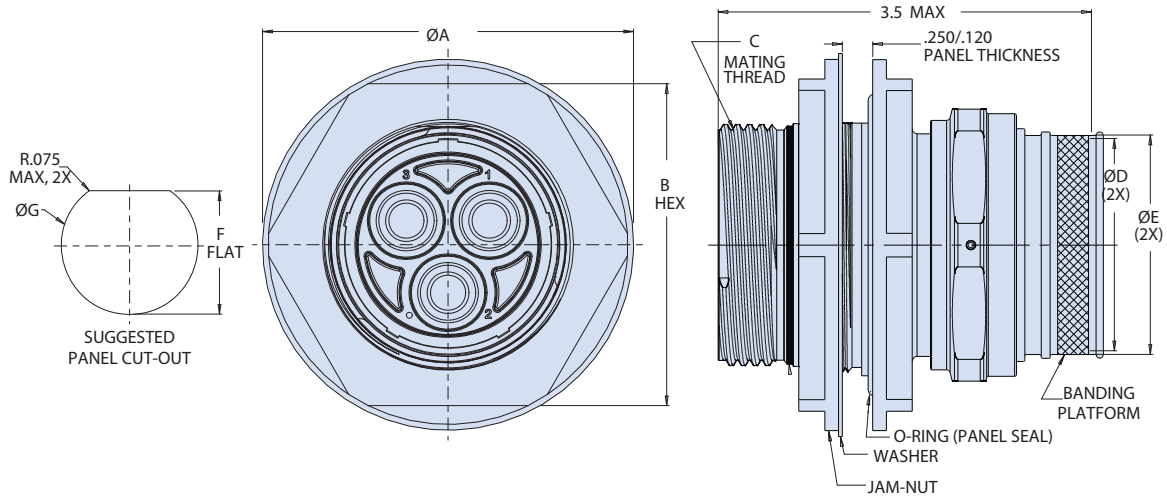
Wire Gauge (AWG)	TURBOFLEX WIRE DIAMETER CODE AND WIRE PART NUMBER (COMPRESSION GROMMET)										
	Single-Wall Hookup Wire					Dual-Wall Interconnect Cable					
	961-102-2000	961-106-1500	961-106-2000	961-108-1500	961-108-2000	961-103-2000	961-104-2000	961-107-1500	961-107-2000	961-109-1500	961-109-2000
8	A	B	A	B	A	+	+	A	+	A	+
4	B	B	A	C	B	+	+	A	+	A	+
2	B	B	A	C	B	A	A	A	+	A	A
0	B	B	A	B	B	A	A	A	+	A	A
00	C	∅	B	∅	B	B	B	B	A	B	A
0000	C	∅	A	∅	B	B	A	A	+	A	+

+: requires special termination, consult factory for how to order and terminate

972-103 Crimp-contact jam-nut receptacle with banding platform and compression grommet for TurboFlex or tape-wrapped wire

POWERLOAD CONNECTORS - CRIMP CONTACTS

CONNECTOR DIMENSIONS



Shell Size	A ±.030	B ±.010	C Mating Thread	ØD ±.015	ØE ±.015	ØF ±.005	ØG ±.005
16	2.125 (53.98)	1.750 (44.45)	1.000-0.1P-0.3L-TS-2A	.812 (20.62)	.875 (22.23)	1.103 (28.02)	1.178 (29.92)
20	2.375 (60.33)	2.000 (50.80)	1.250-0.1P-0.3L-TS-2A	1.062 (26.97)	1.125 (28.58)	1.353 (34.37)	1.428 (36.27)
22	2.500 (63.50)	2.125 (53.97)	1.375-0.1P-0.3L-TS-2A	1.187 (30.15)	1.250 (31.75)	1.478 (37.54)	1.553 (39.45)
24	2.625 (66.68)	2.250 (57.15)	1.500-0.1P-0.3L-TS-2A	1.312 (33.32)	1.375 (34.92)	1.603 (40.72)	1.675 (42.55)
28	2.875 (73.02)	2.500 (63.50)	1.750-0.1P-0.3L-TS-2A	1.562 (39.67)	1.625 (41.28)	1.853 (47.07)	1.928 (48.97)
32	3.200 (81.28)	2.750 (69.85)	2.000-0.1P-0.3L-TS-2A	1.812 (46.02)	1.875 (47.63)	2.103 (53.42)	2.178 (55.32)
36	3.375 (85.73)	3.000 (76.20)	2.250-0.1P-0.3L-TS-2A	2.062 (52.37)	2.125 (53.97)	2.353 (59.77)	2.428 (61.67)
40	3.625 (92.07)	3.250 (82.55)	2.500-0.1P-0.3L-TS-2A	2.187 (55.55)	2.250 (57.15)	2.603 (66.12)	2.678 (68.02)

MATERIAL / FINISH			
Code	Material	Finish	Temp. Rating
ME	Aluminum	Electroless Nickel	-54°-+200°C
MT		Nickel-PTFE	-54°-+200°C
NF		Cadmium, OD	-54°-+175°C
ZR		Zinc-Ni, Black (Tri-Valent CR)	-54°-+175°C
Z1	Stainless Steel	Passivate	-54°-+230°C
ZL		Electrodeposited Nickel	-54°-+230°C

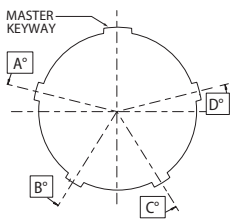
HOW TO ORDER CONTACTS AND CONTACT TOOLING (SOLD SEPARATELY)							
Contact Size	Contact P/N		Extraction Tool		Crimp Tool	Die Set	Locator
	Pin	Socket	Plastic	Metal			
8	850-150-08	850-151-08	859-136-08	859-139	859-025	859-026	859-029
4	850-150-04	850-151-04	859-136-04	859-138		859-027	859-030
2	850-150-02	850-151-02	N/A	859-171		859-169	859-170
1/0	850-150-0	850-151-0	N/A	859-137		859-028	859-031
2/0	850-150-00	850-151-00	N/A	859-225		859-230	859-231

EXAMPLE CONTACT ARRANGEMENT CURRENT RATINGS				
Ins. Arr.	#8AWG 145 A <sup>1</sup>	#4 AWG 270 A <sup>1</sup>	#2 AWG 360 A <sup>1</sup>	1/0 490 A <sup>1</sup>
28-3			3X (156 A <sup>2</sup> )	
28-4		4X (104 A <sup>2</sup> )		
28-6	6X (49 A <sup>2</sup> )			
32-3				3X (210 A <sup>2</sup> )

<sup>1</sup> Absolute maximum current rating per SAE AS50881: single conductor, sea level, 205° temp rise (25° ambient to 230° C max for "Z1" connectors)

<sup>2</sup> Derated current for typical applications per SAE AS50881: multiple conductors, 50,000 ft. altitude, 100°C temp rise

RECEPTACLE KEYWAY POSITIONS



Position	A°	B°	C°	D°
1	76	148	212	284
2	135	170	200	310
3	49	169	200	244
4	66	140	200	257
5	62	145	180	280
6	79	153	197	272

## 972-203 Feed-thru receptacle, jam-nut mount, fixed contacts, pin / socket configuration

POWERLOAD CONNECTORS - CRIMP CONTACTS



**972-203 Feed-Thru Receptacle**

### CONNECTOR FEATURES

- Socket towers for improved creep path performance
- Single-piece insulator eliminates bond lines that can lead to electrical failure
- High-temperature Crown Ring contact technology

### POWER SPECIFICATIONS

- For applications up to 2000 VAC/ 1500 Hz, and from 150 – 800 Amps.
- 230°C maximum operating temperature (stainless steel bodies and shells)
- 100% DWV tested at 5,000 VAC (all arrangements)
- Up to 60% lower contact resistance than equivalent AS39029 contacts (normalized, less wire)

### MATERIAL SPECIFICATIONS

Insulators - PEEK thermoplastic, glass reinforced  
 Seals and o-ring- high-temperature silicone/N.A.  
 Contact body - high-conductivity copper alloy, gold plated  
 Socket contact hood, crown ring - stainless steel, passivated

HOW TO ORDER					
<b>Sample Part Number</b>	<b>972-203</b>	<b>NF</b>	<b>32-3</b>	<b>P</b>	<b>1</b>
<b>Basic Part Number</b>	PowerLoad™ Feed-Thru Receptacle, Jam-Nut mount				
<b>Material/Finish</b>	<b>ME, MT, NF, ZR, Z1, ZL</b> (See Table)				
<b>Shell Size / Contact Arrangement</b>	See PowerLoad contact arrangements table				
<b>Contact Gender</b>	<b>P</b> = Pin on jam nut side <b>S</b> = Socket on jam nut side (opposite side of connector is opposite gender)				
<b>Polarization</b>	<b>1, 2, 3, 4, 5, or 6</b> (see Keyway Positions table)				

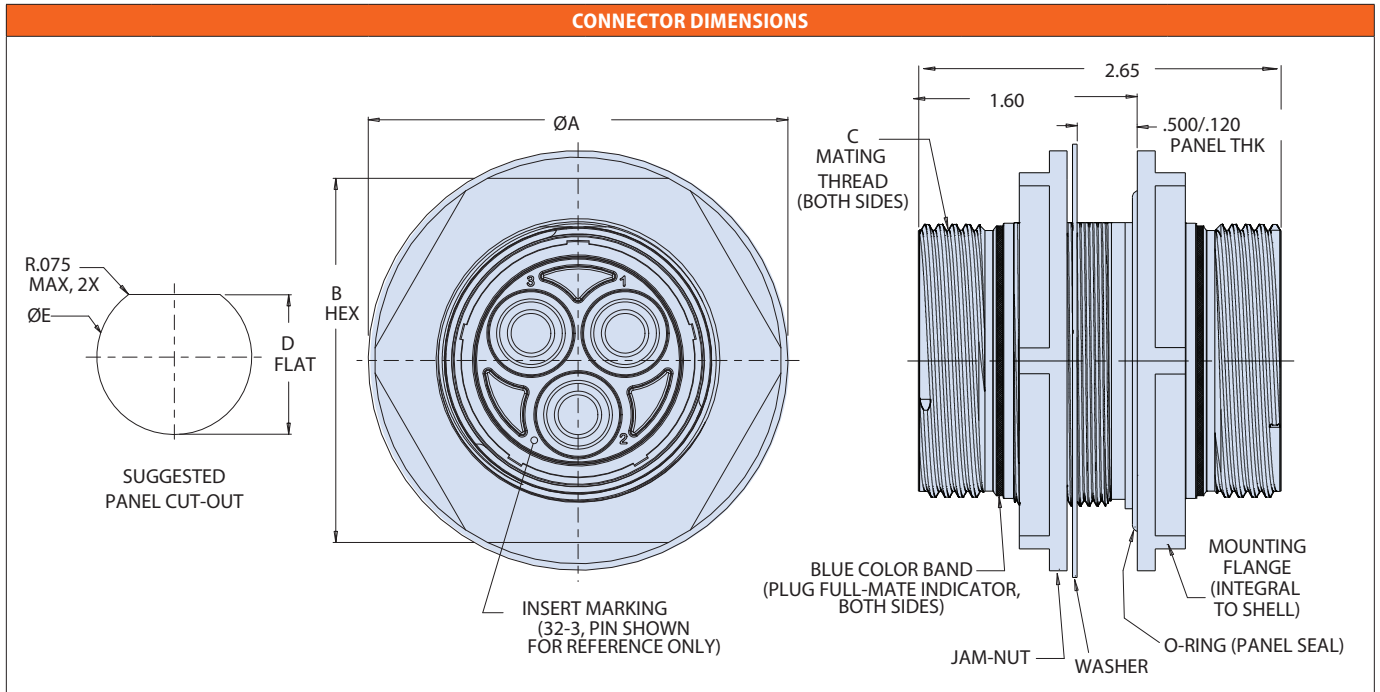
SHELL SIZE / CONTACT ARRANGEMENTS (FACE OF PIN INSERT)					
<b>16-A1</b> 1X #8	<b>16-1</b> 1X #4	<b>20-A1</b> 1X #2	<b>20-1</b> 1X #1/0	<b>22-1*</b> 1X #2/0	<b>22-2</b> 2X #8
<b>22-3</b> 3X #8	<b>24-1*</b> 1X #4/0	<b>24-2</b> 2X #4	<b>24-4</b> 4X #8	<b>28-2</b> 2X #2	<b>28-3</b> 3X #2
<b>28-4</b> 4X #4	<b>28-6</b> 6X #8	<b>32-2</b> 2X #1/0	<b>32-3</b> 3X #1/0	<b>32-4</b> 4X #2	
<b>36-2*</b> 2X #2/0	<b>36-4</b> 4X #1/0	<b>40-3*</b> 3X #2/0	Contact Size Key * Consult Factory		



# PowerLoad™ Connectors

## 972-203 Feed-thru receptacle, jam-nut mount, fixed contacts, pin / socket configuration

POWERLOAD CONNECTORS - CRIMP CONTACTS



Shell Size	A ±.030	B ±.010	C Mating Thread	ØD ±.005	ØE ±.005
16	2.125 (53.98)	1.750 (44.45)	1.000-0.1P-0.3L-TS-2A	1.103 (28.02)	1.178 (29.92)
20	2.375 (60.33)	2.000 (50.80)	1.250-0.1P-0.3L-TS-2A	1.353 (34.37)	1.428 (36.27)
22	2.500 (63.50)	2.125 (53.97)	1.375-0.1P-0.3L-TS-2A	1.478 (37.54)	1.553 (39.45)
24	2.625 (66.68)	2.250 (57.15)	1.500-0.1P-0.3L-TS-2A	1.603 (40.72)	1.675 (42.55)
28	2.875 (73.02)	2.500 (63.50)	1.750-0.1P-0.3L-TS-2A	1.853 (47.07)	1.928 (48.97)
32	3.200 (81.28)	2.750 (69.85)	2.000-0.1P-0.3L-TS-2A	2.103 (53.42)	2.178 (55.32)
36	3.375 (85.73)	3.000 (76.20)	2.250-0.1P-0.3L-TS-2A	2.353 (59.77)	2.428 (61.67)
40	3.625 (92.07)	3.250 (82.55)	2.500-0.1P-0.3L-TS-2A	2.603 (66.12)	2.678 (68.02)

MATERIAL / FINISH			
Code	Material	Finish	Temp. Rating
ME	Aluminum	Electroless Nickel	-54° - +200°C
MT		Nickel-PTFE	-54° - +200°C
NF		Cadmium, OD	-54° - +175°C
ZR		Zinc-Ni, Black (Tri-Valent CR)	-54° - +175°C
Z1	Steel	Passivate	-54° - +230°C
ZL		Electrodeposited Nickel	-54° - +230°C

EXAMPLE CONTACT ARRANGEMENT CURRENT RATINGS				
Ins. Arr.	#8AWG 145 A <sup>1</sup>	#4 AWG 270 A <sup>1</sup>	#2 AWG 360 A <sup>1</sup>	1/0 490 A <sup>1</sup>
28-3			3X (156 A <sup>2</sup> )	
28-4		4X (104 A <sup>2</sup> )		
28-6	6X (49 A <sup>2</sup> )			
32-3				3X (210 A <sup>2</sup> )

<sup>1</sup> Absolute maximum current rating per SAE AS50881: single conductor, sea level, 205° temp rise (25° ambient to 230° C max for "Z1" connectors)  
<sup>2</sup> Derated current for typical applications per SAE AS50881: multiple conductors, 50,000 ft. altitude, 100°C temp rise

RECEPTACLE KEYWAY POSITIONS				
Position	A°	B°	C°	D°
1	76	148	212	284
2	135	170	200	310
3	49	169	200	244
4	66	140	200	257
5	62	145	180	280
6	79	153	197	272

850-150 Crown Ring crimp pin contact  
850-151 Crown Ring crimp socket contact

POWERLOAD CONNECTORS - CRIMP CONTACTS



Crown Ring pin contact (top) and socket (bottom, shown without hood)

FEATURES AND SPECIFICATIONS

- Temperature rating: 260°C
- Contact resistance 40% of typical AS39029 contacts when mated to PowerLoad socket contacts
- Double-thick gold-plated on contact mating surfaces versus AS39029
- Passivated Stainless steel spring member on socket contact provides contact spring force and is resistant to stress relaxation up to 260°

HOW TO ORDER		
Sample Part Number	850-150	-0
Basic Part Number	850-150 Crown Ring pin contact 850-151 Crown Ring socket contact	
Contact Size	8, 4, 2, 0	

CRIMP PIN CONTACT DIMENSIONS						
Part Number	Contact Size	ØA	ØB	ØC Min.	D Min.	E
850-150-8	8AWG	.142	.30	.178	.485	1.36
850-150-4	4AWG	.225	.42	.278	.485	1.36
850-150-2	2AWG	.283	.50	.356	.535	1.42
850-150-0	1/0AWG	.357	.61	.450	.580	1.49

CRIMP SOCKET CONTACT DIMENSIONS						
Part Number	Contact Size	ØA	ØB	ØC Min.	D Min.	E
850-151-8	8AWG	.250	.30	.178	.485	1.34
850-151-4	4AWG	.327	.42	.278	.485	1.34
850-151-2	2AWG	.420	.50	.356	.535	1.40
850-151-0	1/0AWG	.515	.61	.450	.580	1.47

Crown Ring crimp contact tooling

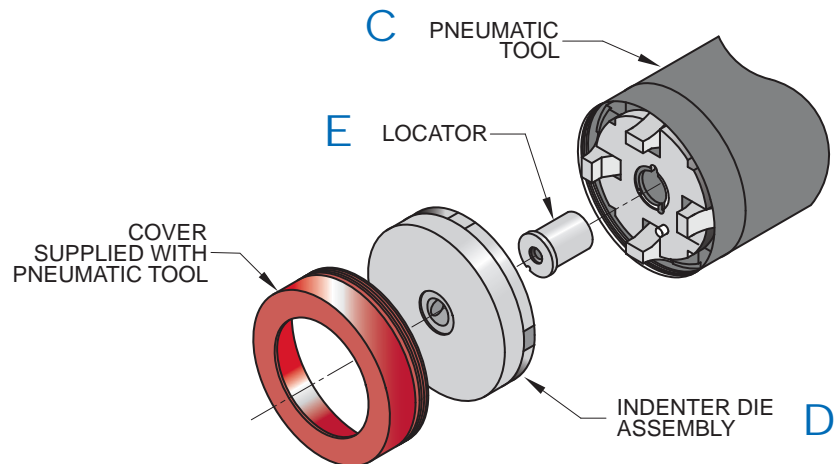
**PNEUMATIC CRIMP TOOL FOR #8, #4 AND #1/0 CONTACTS**



**C** Bench mount pneumatic crimp tool. Heavy duty, four-indent crimp termination. Attach to air supply with quick-disconnect fitting or install 1/4 NPT fitting into tapped port. 90-120 psi air supply. Requires die assemblies and locators, sold separately. Hand actuate with push-button valve trigger on handle. Steel with black wrinkle enamel coating. 13 inches overall length, 9.2 inches tall, 17 pounds (7.7 Kg).

**D** Indenter Die Assembly. Precision four-indent die with hardened tool steel indenters, stainless steel housing. Separate die assembly required for each contact size.

**E** Locator. Aluminum locator positions contact at correct depth for crimping. Separate locator required for each contact size.



CROWN RING CRIMP CONTACT TOOLING							
Contact Size	Contact Part Number		Extraction Tool		Crimp Tool	Die Set	Locator
	Pin	Socket	Plastic	Metal			
8AWG	850-150-8	850-151-8	859-136-8 or M81969/29-02	859-139	859-025	859-026	859-029
4AWG	850-150-4	850-151-4	859-136-4 or M81969/29-03	859-138		859-027	859-030
2AWG	850-150-2	850-151-2	N/A	859-171		859-169	859-170
1/0AWG	850-150-0	850-151-0	M81969/14-08 or M81969/29-04	859-137		859-028	859-031

POWERLOAD CONNECTORS - CRIMP CONTACTS



## 972-011 Plug with banding porch, bus bar and lug contacts, bonded grommet for TurboFlex or tape-wrapped wire



972-011 Plug

POWERLOAD CONNECTORS - BUS BAR / LUG CONTACTS

HOW TO ORDER	
<b>Sample Part Number</b>	972-011 NF 32-3 P 1 A
<b>Basic Part Number</b>	PowerLoad™ Plug with Banding Platform, Bonded Grommet for TurboFlex or Tape-Wrapped wire
<b>Material/Finish</b>	ME, MT, NF, ZR, Z1, ZL (see Table)
<b>Shell Size / Contact Arrangement</b>	See PowerLoad contact arrangements table
<b>Contact Gender</b>	A = Pin, less contacts B = Socket, less contacts (see table for available contacts)
<b>Polarization</b>	1, 2, 3, 4, 5, or 6
<b>Wire Diameter</b>	A = standard wire, See Table III. Use code B for small-diameter wires, consult factory. Use Code Z for connector less wire sealing grommet.

### CONNECTOR FEATURES

- Socket towers for improved creep path performance
- Single-piece insulator eliminates bond lines that can lead to electrical failure
- High-vibration self-locking coupler
- High-temperature bus bar and lug type Crown Ring contacts

### POWER SPECIFICATIONS

- For applications up to 2000 VAC/ 1500 Hz, and from 150 – 800 Amps.
- 230°C maximum operating temperature (stainless steel bodies and shells)
- 100% DWV tested at 5,000 VAC (all arrangements)
- Up to 60% lower contact resistance than equivalent AS39029 contacts (normalized, less wire)

### MATERIAL SPECIFICATIONS

Insulators - PEEK thermoplastic, glass reinforced  
 Seals - high-temperature silicone  
 Contact body - high-conductivity copper alloy, gold plated  
 Socket contact hood, crown ring - stainless steel, passivated

SHELL SIZE / CONTACT ARRANGEMENTS (FACE OF PIN INSERT)					
 16-A1 1X #8	 16-1 1X #4	 20-A1 1X #2	 20-1 1X #1/0	 22-1* 1X #2/0	 22-2 2X #8
 22-3 3X #8	 24-1* 1X #4/0	 24-2 2X #4	 24-4 4X #8	 28-2 2X #2	 28-3 3X #2
 28-4 4X #4	 28-6 6X #8	 32-2 2X #1/0	 32-3 3X #1/0	 32-4 4X #2	
 36-2* 2X #2/0	 36-4 4X #1/0	 40-3* 3X #2/0	 #8 #4 #2 #1/0 #2/0 #4/0 Contact Size Key * Consult Factory		

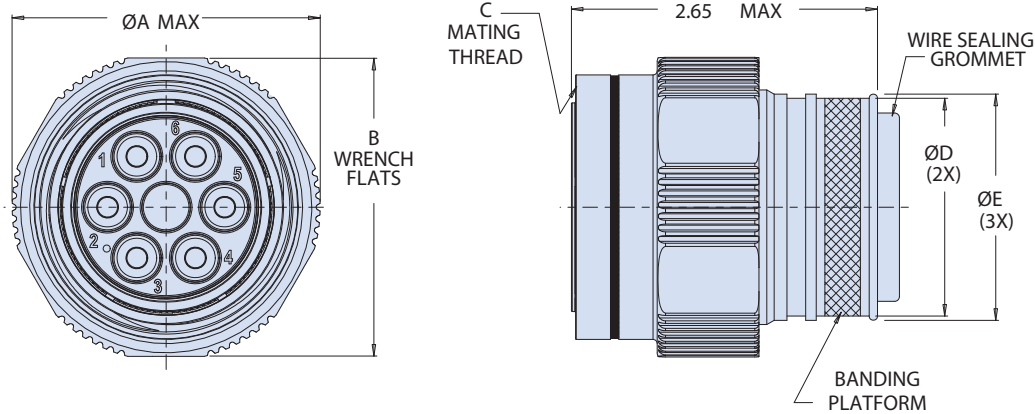
Wire Gauge (AWG)	TURBOFLEX WIRE DIAMETER CODE AND WIRE PART NUMBER (BONDED GROMMET)										
	Single-Wall Hookup Wire					Dual-Wall Interconnect Cable					
	961-102-2000	961-106-1500	961-106-2000	961-108-1500	961-108-2000	961-103-2000	961-104-2000	961-107-1500	961-107-2000	961-109-1500	961-109-2000
8	A	A	A	A	A	+	+	A	+	A	+
4	A	A	A	A	A	+	+	A	+	A	+
2	A	A	A	A	A	A	A	A	+	A	A
0	A	A	A	A	A	A	A	A	+	A	A
00	A	∅	A	∅	A	A	A	A	A	A	A
0000	A	∅	A	∅	A	A	A	A	+	A	+

+: requires special termination, consult factory for how to order and terminate

# PowerLoad™ Connectors

972-011 Plug with banding porch, bus bar and lug contacts, bonded grommet for TurboFlex or tape-wrapped wire

### CONNECTOR DIMENSIONS



Shell Size	ØA Max	B Flat ±.006	C Mating Thread	ØD ±.015	ØE ±.015
16	1.47 (37.34)	1.375 (34.93)	1.000-0.1P-0.3L-TS-2B	.812 (20.62)	.875 (22.23)
20	1.72 (43.69)	1.625 (41.28)	1.250-0.1P-0.3L-TS-2B	1.062 (26.97)	1.125 (28.58)
22	1.85 (46.99)	1.750 (44.45)	1.375-0.1P-0.3L-TS-2B	1.187 (30.15)	1.250 (31.75)
24	1.97 (50.04)	1.875 (47.63)	1.500-0.1P-0.3L-TS-2B	1.312 (33.32)	1.375 (34.92)
28	2.22 (56.39)	2.140 (54.36)	1.750-0.1P-0.3L-TS-2B	1.562 (39.67)	1.625 (41.28)
32	2.62 (66.55)	2.500 (63.50)	2.000-0.1P-0.3L-TS-2B	1.812 (46.02)	1.875 (47.63)
36	2.88 (73.15)	2.750 (69.85)	2.250-0.1P-0.3L-TS-2B	2.062 (52.37)	2.125 (53.97)
40	3.07 (77.98)	2.938 (74.63)	2.500-0.1P-0.3L-TS-2B	2.187 (55.55)	2.250 (57.15)

MATERIAL / FINISH			
Code	Material	Finish	Temp. Rating
ME	Aluminum	Electroless Nickel	-54°- +200°C
MT		Nickel-PTFE	-54°- +200°C
NF		Cadmium, OD	-54°- +175°C
ZR		Zinc-Ni, Black (Tri-Valent CR)	-54°- +175°C
Z1	Stainless Steel	Passivate	-54°- +230°C
ZL		Electrodeposited Nickel	-54°- +230°C

EXAMPLE CONTACT ARRANGEMENT CURRENT RATINGS				
Ins. Arr.	#8AWG 145 A <sup>1</sup>	#4 AWG 270 A <sup>1</sup>	#2 AWG 360 A <sup>1</sup>	1/0 490 A <sup>1</sup>
28-3			3X (156 A <sup>2</sup> )	
28-4		4X (104 A <sup>2</sup> )		
28-6	6X (49 A <sup>2</sup> )			
32-3				3X (210 A <sup>2</sup> )

<sup>1</sup> Absolute maximum current rating per SAE AS50881: single conductor, sea level, 205° temp rise (25° ambient to 230° C max for "Z1" connectors)  
<sup>2</sup> Derated current for typical applications per SAE AS50881: multiple conductors, 50,000 ft. altitude, 100°C temp rise

AVAILABLE PIN CONTACTS			AVAILABLE SOCKET CONTACTS		
Part Number	Contact Size	Termination Style	Part Number	Contact Size	Termination Style
850-323-0-A	0	Internal Thread Style A	850-324-0-A	0	Internal Thread Style A
850-323-2-A	2		850-324-2-A	2	
850-323-4-A	4		850-324-4-A	4	
850-323-8-A	8		850-324-8-A	8	
850-323-0-C	0	Lug Style C	850-324-0-C	0	Lug Style C
850-323-2-C	2		850-324-2-C	2	
850-323-4-C	4		850-324-4-C	4	
850-323-8-C	8		850-324-8-C	8	

POWERLOAD CONNECTORS - BUS BAR / LUG CONTACTS



## 972-012 Wall-mount receptacle with banding platform, bus bar and lug contacts, bonded grommet for TurboFlex or tape-wrapped wire

POWERLOAD CONNECTORS - BUS BAR / LUG CONTACTS



972-012 Receptacle

HOW TO ORDER						
<b>Sample Part Number</b>	<b>972-012</b>	<b>NF</b>	<b>32-3</b>	<b>P</b>	<b>1</b>	<b>A</b>
<b>Basic Part Number</b>	PowerLoad™ Wall-Mount Receptacle with Banding Platform, Bonded Grommet for TurboFlex or Tape-Wrapped wire					
<b>Material/Finish</b>	ME, MT, NF, ZR, Z1, ZL (see Table)					
<b>Shell Size / Contact Arrangement</b>	See PowerLoad contact arrangements table					
<b>Contact Gender</b>	A = Pin, less contacts B = Socket, less contacts (see table for available contacts)					
<b>Polarization</b>	1, 2, 3, 4, 5, or 6					
<b>Wire Diameter</b>	A = standard wire, See Table III. Use code B for small-diameter wires, consult factory. Use Code Z for connector less wire sealing grommet.					

### CONNECTOR FEATURES

- Socket towers for improved creep path performance
- Single-piece insulator eliminates bond lines that can lead to electrical failure
- High-vibration self-locking coupler
- High-temperature bus bar and lug type Crown Ring contacts

### POWER SPECIFICATIONS

- For applications up to 2000 VAC/ 1500 Hz, and from 150 – 800 Amps.
- 230°C maximum operating temperature (stainless steel bodies and shells)
- 100% DWV tested at 5,000 VAC (all arrangements)
- Up to 60% lower contact resistance than equivalent AS39029 contacts (normalized, less wire)

### MATERIAL SPECIFICATIONS

Insulators - PEEK thermoplastic, glass reinforced  
 Seals - high-temperature silicone  
 Contact body - high-conductivity copper alloy, gold plated  
 Socket contact hood, crown ring - stainless steel, passivated

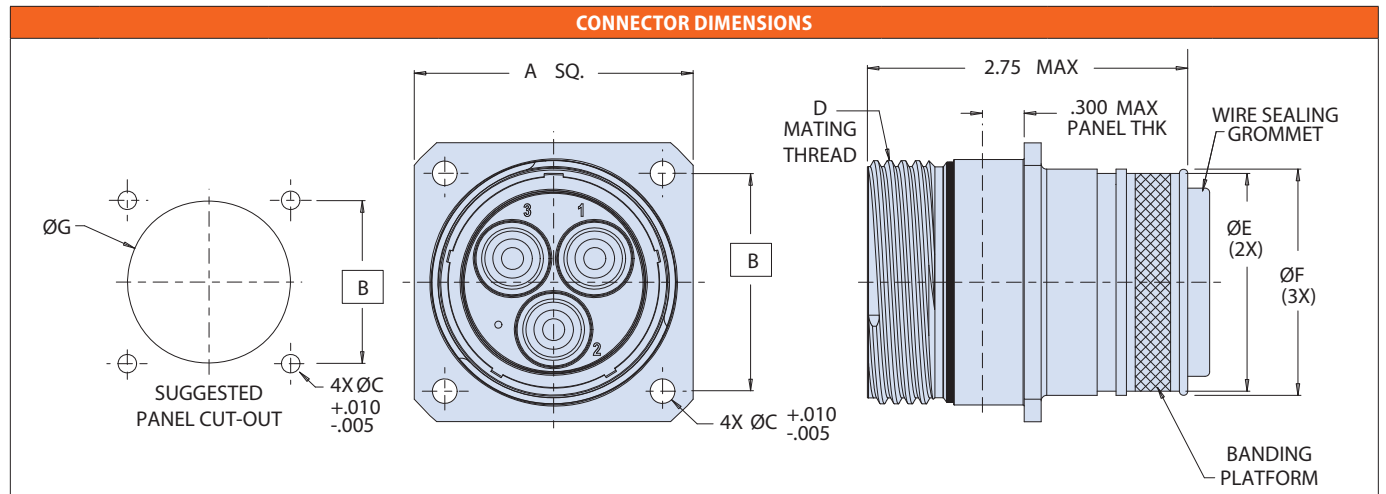
SHELL SIZE / CONTACT ARRANGEMENTS (FACE OF PIN INSERT)					
<b>16-A1</b> 1X #8	<b>16-1</b> 1X #4	<b>20-A1</b> 1X #2	<b>20-1</b> 1X #1/0	<b>22-1*</b> 1X #2/0	<b>22-2</b> 2X #8
<b>22-3</b> 3X #8	<b>24-1*</b> 1X #4/0	<b>24-2</b> 2X #4	<b>24-4</b> 4X #8	<b>28-2</b> 2X #2	<b>28-3</b> 3X #2
<b>28-4</b> 4X #4	<b>28-6</b> 6X #8	<b>32-2</b> 2X #1/0	<b>32-3</b> 3X #1/0	<b>32-4</b> 4X #2	
<b>36-2*</b> 2X #2/0	<b>36-4</b> 4X #1/0	<b>40-3*</b> 3X #2/0	#8 #4 #2 #1/0 #2/0 #4/0 Contact Size Key * Consult Factory		

Wire Gauge (AWG)	TURBOFLEX WIRE DIAMETER CODE AND WIRE PART NUMBER (BONDED GROMMET)										
	Single-Wall Hookup Wire					Dual-Wall Interconnect Cable					
	961-102-2000	961-106-1500	961-106-2000	961-108-1500	961-108-2000	961-103-2000	961-104-2000	961-107-1500	961-107-2000	961-109-1500	961-109-2000
8	A	A	A	A	A	+	+	A	+	A	+
4	A	A	A	A	A	+	+	A	+	A	+
2	A	A	A	A	A	A	A	A	+	A	A
0	A	A	A	A	A	A	A	A	+	A	A
00	A	∅	A	∅	A	A	A	A	A	A	A
0000	A	∅	A	∅	A	A	A	A	+	A	+

+: requires special termination, consult factory for how to order and terminate



972-012 Wall-mount receptacle with banding platform, bus bar and lug contacts, bonded grommet for TurboFlex or tape-wrapped wire



Shell Size	A ±.031	B Bsc	ØC Typ	D Mating Thread	ØE ±.015	ØF ±.015	ØG ±.010
16	1.281 (32.54)	.969 (24.61)	.150 (3.81)	1.000-0.1P-0.3L-TS-2A	.812 (20.62)	.875 (22.23)	1.062 (26.97)
20	1.500 (38.10)	1.156 (29.36)	.177 (4.5)	1.250-0.1P-0.3L-TS-2A	1.062 (26.97)	1.125 (28.58)	1.312 (33.32)
22	1.625 (41.28)	1.250 (31.75)	.177 (4.5)	1.375-0.1P-0.3L-TS-2A	1.187 (30.15)	1.250 (31.75)	1.437 (36.50)
24	1.750 (44.45)	1.375 (34.92)	.177 (4.5)	1.500-0.1P-0.3L-TS-2A	1.312 (33.32)	1.375 (34.92)	1.562 (39.67)
28	2.000 (50.80)	1.562 (39.67)	.177 (4.5)	1.750-0.1P-0.3L-TS-2A	1.562 (39.67)	1.625 (41.28)	1.812 (46.02)
32	2.250 (57.15)	1.750 (44.45)	.209 (5.3)	2.000-0.1P-0.3L-TS-2A	1.812 (46.02)	1.875 (47.63)	2.062 (52.37)
36	2.500 (63.50)	1.938 (49.23)	.209 (5.3)	2.250-0.1P-0.3L-TS-2A	2.062 (52.37)	2.125 (53.97)	2.312 (58.72)
40	2.750 (69.85)	2.188 (55.58)	.209 (5.31)	2.500-0.1P-0.3L-TS-2A	2.187 (55.55)	2.250 (57.15)	2.562 (65.07)

MATERIAL / FINISH			
Code	Material	Finish	Temp. Rating
ME	Aluminum	Electroless Nickel	-54°-+200°C
MT		Nickel-PTFE	-54°-+200°C
NF		Cadmium, OD	-54°-+175°C
ZR		Zinc-Ni, Black (Tri-Valent CR)	-54°-+175°C
Z1	Stainless Steel	Passivate	-54°-+230°C
ZL		Electrodeposited Nickel	-54°-+230°C

EXAMPLE CONTACT ARRANGEMENT CURRENT RATINGS				
Ins. Arr.	#8AWG 145 A <sup>1</sup>	#4 AWG 270 A <sup>1</sup>	#2 AWG 360 A <sup>1</sup>	1/0 490 A <sup>1</sup>
28-3			3X (156 A <sup>2</sup> )	
28-4		4X (104 A <sup>2</sup> )		
28-6	6X (49 A <sup>2</sup> )			
32-3				3X (210 A <sup>2</sup> )

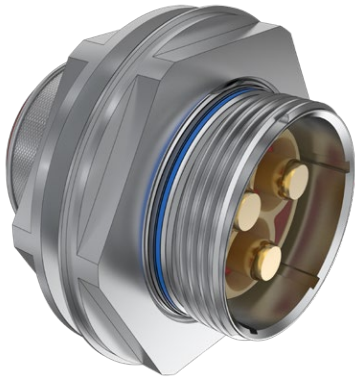
<sup>1</sup> Absolute maximum current rating per SAE AS50881: single conductor, sea level, 205° temp rise (25° ambient to 230° C max for "Z1" connectors)  
<sup>2</sup> Derated current for typical applications per SAE AS50881: multiple conductors, 50,000 ft. altitude, 100°C temp rise

AVAILABLE PIN CONTACTS			AVAILABLE SOCKET CONTACTS		
Part Number	Contact Size	Termination Style	Part Number	Contact Size	Termination Style
850-323-0-A	0	Internal Thread Style A	850-324-0-A	0	Internal Thread Style A
850-323-2-A	2		850-324-2-A	2	
850-323-4-A	4		850-324-4-A	4	
850-323-8-A	8		850-324-8-A	8	
850-323-0-C	0	Lug Style C	850-324-0-C	0	Lug Style C
850-323-2-C	2		850-324-2-C	2	
850-323-4-C	4		850-324-4-C	4	
850-323-8-C	8		850-324-8-C	8	

POWERLOAD CONNECTORS - BUS BAR / LUG CONTACTS

## 972-013 Jam-nut receptacle with banding platform, bus bar and lug contacts, bonded grommet for TurboFlex or tape-wrapped wire

POWERLOAD CONNECTORS - BUS BAR / LUG CONTACTS



972-013 Jam-Nut Receptacle

### CONNECTOR FEATURES

- Socket towers for improved creep path performance
- Single-piece insulator eliminates bond lines that can lead to electrical failure
- High-vibration self-locking coupler
- High-temperature bus bar and lug type Crown Ring contacts

### POWER SPECIFICATIONS

- For applications up to 2000 VAC/ 1500 Hz, and from 150 – 800 Amps.
- 230°C maximum operating temperature (stainless steel bodies and shells)
- 100% DWV tested at 5,000 VAC (all arrangements)
- Up to 60% lower contact resistance than equivalent AS39029 contacts (normalized, less wire)

### MATERIAL SPECIFICATIONS

Insulators - PEEK thermoplastic, glass reinforced  
 Seals and o-ring- high-temperature silicone/N.A.  
 Contact body - high-conductivity copper alloy, gold plated  
 Socket contact hood, crown ring - stainless steel, passivated

HOW TO ORDER						
<b>Sample Part Number</b>	<b>972-013</b>	<b>NF</b>	<b>32-3</b>	<b>P</b>	<b>1</b>	<b>A</b>
<b>Basic Part Number</b>	PowerLoad™ Jam-Nut Receptacle with Banding Platform, Bonded Grommet for TurboFlex or Tape-Wrapped wire					
<b>Material/Finish</b>	<b>ME, MT, NF, ZR, Z1, ZL</b> (see Table)					
<b>Shell Size / Contact Arrangement</b>	See PowerLoad contact arrangements table					
<b>Contact Gender</b>	<b>A</b> = Pin, less contacts <b>B</b> = Socket, less contacts (see table for available contacts)					
<b>Polarization</b>	<b>1, 2, 3, 4, 5, or 6</b>					
<b>Wire Diameter</b>	<b>A</b> = standard wire, See Table III. Use code <b>B</b> for small-diameter wires, consult factory. Use Code <b>Z</b> for connector less wire sealing grommet.					

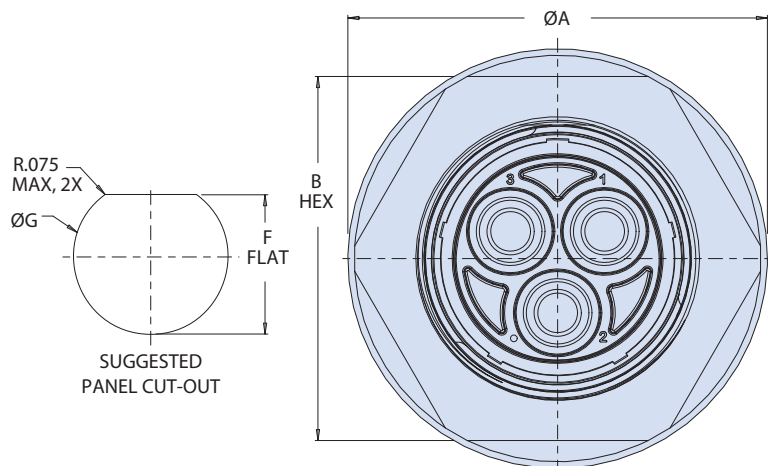
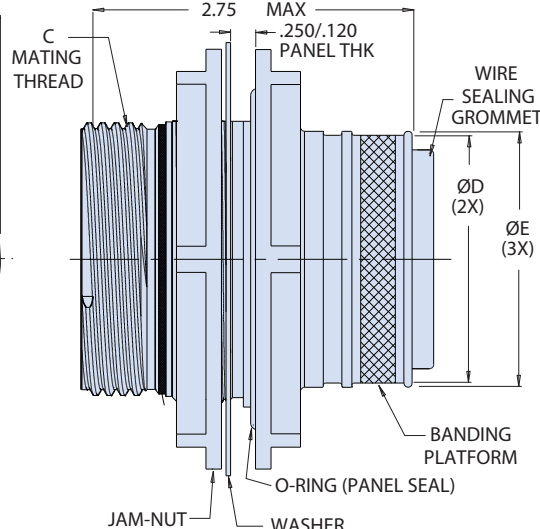
SHELL SIZE / CONTACT ARRANGEMENTS (FACE OF PIN INSERT)					
<b>16-A1</b> 1X #8	<b>16-1</b> 1X #4	<b>20-A1</b> 1X #2	<b>20-1</b> 1X #1/0	<b>22-1*</b> 1X #2/0	<b>22-2</b> 2X #8
<b>22-3</b> 3X #8	<b>24-1*</b> 1X #4/0	<b>24-2</b> 2X #4	<b>24-4</b> 4X #8	<b>28-2</b> 2X #2	<b>28-3</b> 3X #2
<b>28-4</b> 4X #4	<b>28-6</b> 6X #8	<b>32-2</b> 2X #1/0	<b>32-3</b> 3X #1/0	<b>32-4</b> 4X #2	
<b>36-2*</b> 2X #2/0	<b>36-4</b> 4X #1/0	<b>40-3*</b> 3X #2/0	Contact Size Key * Consult Factory		

Wire Gauge (AWG)	TURBOFLEX WIRE DIAMETER CODE AND WIRE PART NUMBER (BONDED GROMMET)										
	Single-Wall Hookup Wire					Dual-Wall Interconnect Cable					
	961-102-2000	961-106-1500	961-106-2000	961-108-1500	961-108-2000	961-103-2000	961-104-2000	961-107-1500	961-107-2000	961-109-1500	961-109-2000
8	A	A	A	A	A	+	+	A	+	A	+
4	A	A	A	A	A	+	+	A	+	A	+
2	A	A	A	A	A	A	A	A	+	A	A
0	A	A	A	A	A	A	A	A	+	A	A
00	A	∅	A	∅	A	A	A	A	A	A	A
0000	A	∅	A	∅	A	A	A	A	+	A	+

+: requires special termination, consult factory for how to order and terminate

972-013 Jam-nut receptacle with banding platform, bus bar and lug contacts, bonded grommet for TurboFlex or tape-wrapped wire

CONNECTOR DIMENSIONS

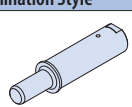
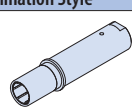
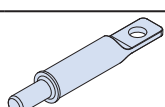
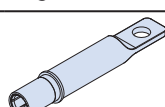



Shell Size	A ±.030	B ±.010	C Mating Thread	ØD ±.015	ØE ±.015	ØF ±.005	ØG ±.005
16	2.125 (53.98)	1.750 (44.45)	1.000-0.1P-0.3L-TS-2A	.812 (20.62)	.875 (22.23)	1.103 (28.02)	1.178 (29.92)
20	2.375 (60.33)	2.000 (50.80)	1.250-0.1P-0.3L-TS-2A	1.062 (26.97)	1.125 (28.58)	1.353 (34.37)	1.428 (36.27)
22	2.500 (63.50)	2.125 (53.97)	1.375-0.1P-0.3L-TS-2A	1.187 (30.15)	1.250 (31.75)	1.478 (37.54)	1.553 (39.45)
24	2.625 (66.68)	2.250 (57.15)	1.500-0.1P-0.3L-TS-2A	1.312 (33.32)	1.375 (34.92)	1.603 (40.72)	1.675 (42.55)
28	2.875 (73.02)	2.500 (63.50)	1.750-0.1P-0.3L-TS-2A	1.562 (39.67)	1.625 (41.28)	1.853 (47.07)	1.928 (48.97)
32	3.200 (81.28)	2.750 (69.85)	2.000-0.1P-0.3L-TS-2A	1.812 (46.02)	1.875 (47.63)	2.103 (53.42)	2.178 (55.32)
36	3.375 (85.73)	3.000 (76.20)	2.250-0.1P-0.3L-TS-2A	2.062 (52.37)	2.125 (53.97)	2.353 (59.77)	2.428 (61.67)
40	3.625 (92.07)	3.250 (82.55)	2.500-0.1P-0.3L-TS-2A	2.187 (55.55)	2.250 (57.15)	2.603 (66.12)	2.678 (68.02)

MATERIAL / FINISH			
Code	Material	Finish	Temp. Rating
ME	Aluminum	Electroless Nickel	-54°-+200°C
MT		Nickel-PTFE	-54°-+200°C
NF		Cadmium, OD	-54°-+175°C
ZR		Zinc-Ni, Black (Tri-Valent CR)	-54°-+175°C
Z1	Stainless Steel	Passivate	-54°-+230°C
ZL		Electrodeposited Nickel	-54°-+230°C

EXAMPLE CONTACT ARRANGEMENT CURRENT RATINGS				
Ins. Arr.	#8AWG 145 A <sup>1</sup>	#4 AWG 270 A <sup>1</sup>	#2 AWG 360 A <sup>1</sup>	1/0 490 A <sup>1</sup>
28-3			3X (156 A <sup>2</sup> )	
28-4		4X (104 A <sup>2</sup> )		
28-6	6X (49 A <sup>2</sup> )			
32-3				3X (210 A <sup>2</sup> )

<sup>1</sup> Absolute maximum current rating per SAE AS50881: single conductor, sea level, 205° temp rise (25° ambient to 230° C max for "Z1" connectors)  
<sup>2</sup> Derated current for typical applications per SAE AS50881: multiple conductors, 50,000 ft. altitude, 100° C temp rise

AVAILABLE PIN CONTACTS			AVAILABLE SOCKET CONTACTS		
Part Number	Contact Size	Termination Style	Part Number	Contact Size	Termination Style
850-323-0-A	0	Internal Thread Style A 	850-324-0-A	0	Internal Thread Style A 
850-323-2-A	2		850-324-2-A	2	
850-323-4-A	4		850-324-4-A	4	
850-323-8-A	8		850-324-8-A	8	
850-323-0-C	0	Lug Style C 	850-324-0-C	0	Lug Style C 
850-323-2-C	2		850-324-2-C	2	
850-323-4-C	4		850-324-4-C	4	
850-323-8-C	8		850-324-8-C	8	

POWERLOAD CONNECTORS - BUS BAR / LUG CONTACTS

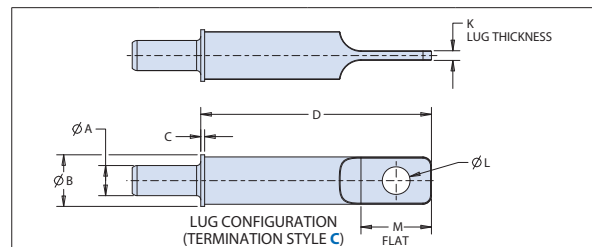
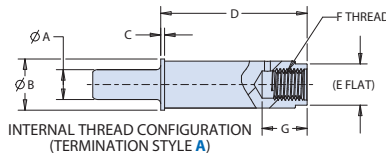


## 850-323 bus bar/lug pin contacts

POWERLOAD CONNECTORS - BUS BAR / LUG CONTACTS

HOW TO ORDER			
<b>Sample Part Number</b>	<b>850-323</b>	<b>-0</b>	<b>-A</b>
<b>Basic Part Number</b>	Bus bar/lug pin contacts for PowerLoad connector		
<b>Contact Size</b>	<b>8, 4, 2, 0</b>		
<b>Termination Style</b>	<b>A</b> = Internal thread <b>C</b> = Lug		

### SOCKET CONTACT DIMENSIONS

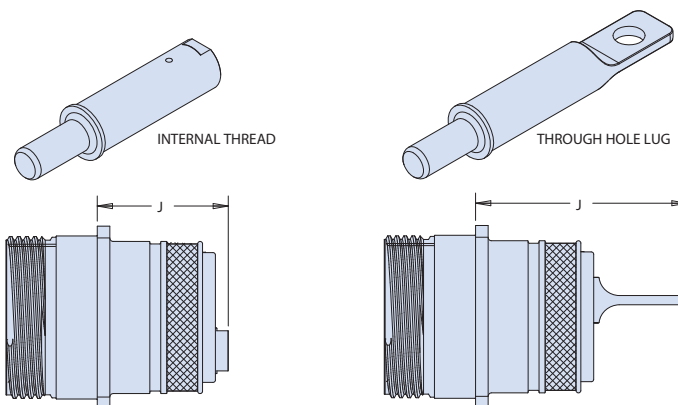


Additional Dimensions for Style C Lug Configuration			
Contact Size	K	ØL	M Flat
0	.115 (2.92)	.330 (8.38)	.836 (21.23)
2	.115 (2.92)	.269 (6.83)	.836 (21.23)
4	.085 (2.16)	.198 (5.03)	.552 (14.02)
8	.075 (1.90)	.173 (4.39)	.468 (11.89)

Part Number	Contact Size	Termination Style	ØA ±.005 (.127)	ØB ±.005 (.127)	C	D	E Flat (ref.)	F Thread	G	J±.025 Sq. Flange
<b>850-323-0-A</b>	0	Internal Thread Style <b>A</b>	.357 (9.07)	.613 (15.57)	.046 (1.17)	1.753 (44.53)	.495 (12.57)	5/16-24 UNF 2B	.539 (13.69)	1.620 (41.15)
<b>850-323-2-A</b>	2		.283 (7.19)	.505 (12.83)		1.747 (44.37)	.370 (9.40)	1/4-28 UNF 2B	.453 (11.51)	1.620 (41.15)
<b>850-323-4-A</b>	4		.225 (5.72)	.415 (10.54)		1.628 (41.35)	.307 (7.80)	10-32 UNF 2B	.460 (11.68)	1.495 (37.97)
<b>850-323-8-A</b>	8		.142 (3.61)	.305 (7.75)		1.747 (44.37)	.245 (6.22)	8-36 UNF 2B	.407 (10.34)	1.620 (41.15)
<b>850-323-0-C</b>	0	Lug Style <b>C</b>	.357 (9.07)	.613 (15.57)	.046 (1.17)	2.738 (69.55)	N/A	N/A	N/A	2.605 (66.17)
<b>850-323-2-C</b>	2		.283 (7.19)	.505 (12.83)		2.723 (69.16)				2.596 (66.17)
<b>850-323-4-C</b>	4		.225 (5.72)	.415 (10.54)		2.309 (58.65)				2.176 (55.27)
<b>850-323-8-C</b>	8		.142 (3.61)	.305 (7.75)		2.288 (58.12)				2.161 (54.89)

SUGGESTED HARDWARE TORQUE (Termination style A)	
Thread Size	Torque (In.-lb.)
5/16-24 UNF	90-140
1/4-28 UNF	60-70
10-32 UNF	20-29
8-36 UNF	11-19

CONNECTOR HOLDING TOOL	
Contact size	Tool P/N
#0	
#2	
#4	
#8	

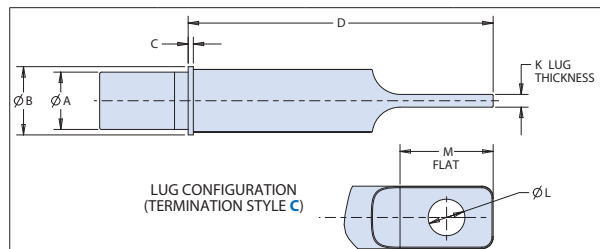
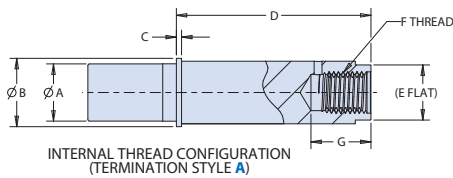


Contact extension from front of shell flange. 972-012 square flange banding porch housing shown for reference. Orientation of contacts shown for reference. Contacts are not keyed into the insert.

850-324 bus bar/lug socket contacts

HOW TO ORDER			
Sample Part Number	850-324	-0	-A
Basic Part Number	Bus bar/lug socket contacts for PowerLoad connector		
Contact Size	8, 4, 2, 0		
Termination Style	A = Internal thread C = Lug		

SOCKET CONTACT DIMENSIONS

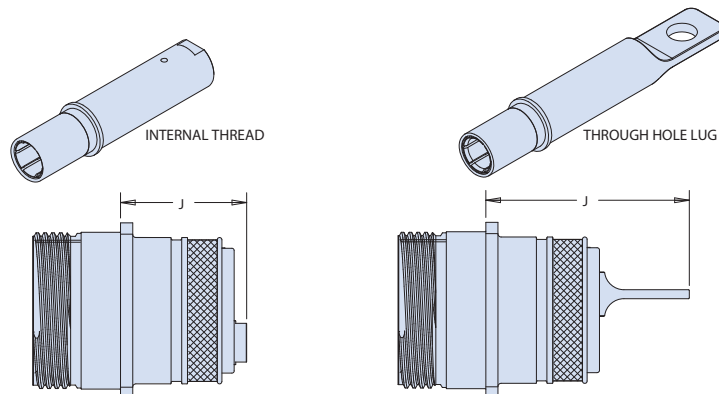


Additional Dimensions for Style C Lug Configuration			
Contact Size	K	ØL	M Flat
0	.115 (2.92)	.330 (8.38)	.836 (21.23)
2	.115 (2.92)	.269 (6.83)	.836 (21.23)
4	.085 (2.16)	.198 (5.03)	.552 (14.02)
8	.075 (1.90)	.173 (4.39)	.468 (11.89)

Part Number	Contact Size	Termination Style	ØA ±.005 (.127)	ØB ±.005 (.127)	C	D	E Flat (ref.)	F Thread	G	H Max.	J ±.025 Sq. Flange
850-324-0-A	0	Internal Thread Style A	.516 (13.11)	.613 (15.57)	.046 (1.17)	1.753 (44.53)	.495 (12.57)	5/16-24 UNF 2B	.539 (13.69)	N/A	1.620 (41.15)
850-324-2-A	2		.420 (10.67)	.505 (12.83)		1.747 (44.37)	.370 (9.40)	1/4-28 UNF 2B	.453 (11.51)		1.495 (37.97)
850-324-4-A	4		.328 (8.33)	.415 (10.54)		1.628 (41.35)	.307 (7.80)	10-32 UNF 2B	.460 (11.68)		1.620 (41.15)
850-324-8-A	8		.250 (6.35)	.305 (7.75)		1.747 (44.37)	.245 (6.22)	8-36 UNF 2B	.407 (10.34)		1.620 (41.15)
850-324-0-C	0	Lug Style C	.516 (13.11)	.613 (15.57)	.046 (1.17)	2.738 (69.55)	N/A	N/A	N/A	N/A	2.605 (66.17)
850-324-2-C	2		.420 (10.67)	.505 (12.83)		2.723 (69.16)					2.596 (65.94)
850-324-4-C	4		.328 (8.33)	.415 (10.54)		2.309 (58.65)					2.176 (55.27)
850-324-8-C	8		.250 (6.35)	.305 (7.75)		2.288 (58.12)					2.161 (54.89)

SUGGESTED HARDWARE TORQUE (Termination style A and B)	
Thread Size	Torque (In.-lb.)
5/16-24 UNF	90-140
1/4-28 UNF	60-70
10-32 UNF	20-29
8-36 UNF	11-19

CONNECTOR HOLDING TOOL	
Contact size	Tool P/N
#0	
#2	
#4	
#8	



Contact extension from front of shell flange. 972-012 square flange banding porch housing shown for reference. Orientation of contacts shown for reference. Contacts are not keyed into the insert.

390PX055 EMI/RFI environmental backshell  
Straight, 45°, 90° configurations • three strain relief options

POWERLOAD BACKSHELLS AND ACCESSORIES

MATERIAL / FINISH		
Code	Material	Finish
ME	Aluminum	Electroless Nickel
MT		Nickel-PTFE
NF		Cadmium, OD
ZR		Zinc-Ni, Black (Tri-Valent CR)
Z1	Stainless	Passivate
ZL	Steel	Electrodeposited Nickel

**PROFILE SELECTION**

S = Straight

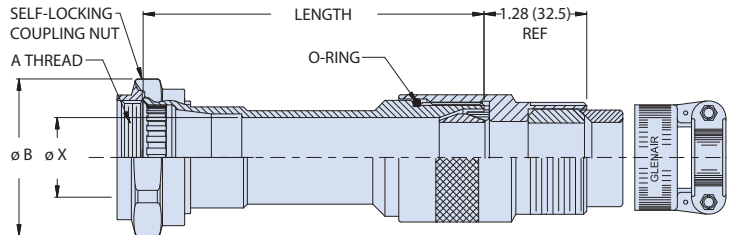
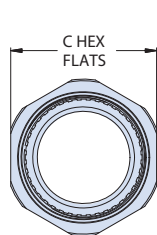
M = 45°

N = 90°

HOW TO ORDER																																																																																																																																				
Sample Part Number	390PXS055	MT	24	12H	8																																																																																																																															
Base Part Number	390PXM055 = 45° (bent tube elbow) 390PXN055 = 90° (bent tube elbow) 390PXS055 = straight																																																																																																																																			
Material/Finish	ME, MT, NF, ZR, Z1, ZL (See Table)																																																																																																																																			
Shell Size	16, 20, 22, 24, 28, 32, 36																																																																																																																																			
Entry Size and Strain Relief Code	SADDLE CLAMP <table border="1"> <thead> <tr> <th>Entry Code</th> <th>Max. Cable Dia.</th> <th>Shell Size Range*</th> </tr> </thead> <tbody> <tr><td>04H</td><td>.312</td><td>16-36</td></tr> <tr><td>06H</td><td>.437</td><td>16-36</td></tr> <tr><td>08H</td><td>.562</td><td>16-36</td></tr> <tr><td>10H</td><td>.625</td><td>20-36</td></tr> <tr><td>12H</td><td>.750</td><td>20-36</td></tr> <tr><td>16H</td><td>.937</td><td>22-36</td></tr> <tr><td>20H</td><td>1.250</td><td>24-36</td></tr> <tr><td>24H</td><td>1.375</td><td>28-36</td></tr> <tr><td>28H</td><td>1.625</td><td>32-36</td></tr> <tr><td>32H</td><td>1.875</td><td>36</td></tr> <tr><td>36H</td><td>2.125</td><td>-</td></tr> <tr><td>40H</td><td>2.375</td><td>-</td></tr> </tbody> </table>			Entry Code	Max. Cable Dia.	Shell Size Range*	04H	.312	16-36	06H	.437	16-36	08H	.562	16-36	10H	.625	20-36	12H	.750	20-36	16H	.937	22-36	20H	1.250	24-36	24H	1.375	28-36	28H	1.625	32-36	32H	1.875	36	36H	2.125	-	40H	2.375	-	NUT <table border="1"> <thead> <tr> <th>Entry Code</th> <th>Max. Cable Dia.</th> <th>Shell Size Range*</th> </tr> </thead> <tbody> <tr><td>04D</td><td>.312</td><td>16-36</td></tr> <tr><td>06D</td><td>.438</td><td>16-36</td></tr> <tr><td>08D</td><td>.562</td><td>16-36</td></tr> <tr><td>10D</td><td>.625</td><td>20-36</td></tr> <tr><td>12D</td><td>.750</td><td>20-36</td></tr> <tr><td>16D</td><td>.938</td><td>22-36</td></tr> <tr><td>20D</td><td>1.250</td><td>24-36</td></tr> <tr><td>24D</td><td>1.375</td><td>28-36</td></tr> <tr><td>28D</td><td>1.625</td><td>32-36</td></tr> <tr><td>32D</td><td>1.875</td><td>36</td></tr> <tr><td>36D</td><td>-</td><td>-</td></tr> <tr><td>40D</td><td>2.375</td><td>-</td></tr> </tbody> </table>			Entry Code	Max. Cable Dia.	Shell Size Range*	04D	.312	16-36	06D	.438	16-36	08D	.562	16-36	10D	.625	20-36	12D	.750	20-36	16D	.938	22-36	20D	1.250	24-36	24D	1.375	28-36	28D	1.625	32-36	32D	1.875	36	36D	-	-	40D	2.375	-	CABLE GRIP <table border="1"> <thead> <tr> <th>Entry Code</th> <th>Max. Cable Dia.</th> <th>Shell Size Range*</th> </tr> </thead> <tbody> <tr><td>03K</td><td>.210</td><td>16-36</td></tr> <tr><td>04K</td><td>.310</td><td>16-36</td></tr> <tr><td>06K</td><td>.438</td><td>16-36</td></tr> <tr><td>08K</td><td>.500</td><td>16-36</td></tr> <tr><td>10K</td><td>.625</td><td>20-36</td></tr> <tr><td>12K</td><td>.750</td><td>20-36</td></tr> <tr><td>14K</td><td>.875</td><td>20-36</td></tr> <tr><td>16K</td><td>1.000</td><td>22-36</td></tr> <tr><td>20K</td><td>1.250</td><td>24-36</td></tr> <tr><td>24K</td><td>1.375</td><td>28-36</td></tr> <tr><td>28K</td><td>1.625</td><td>32-36</td></tr> <tr><td>32K</td><td>1.875</td><td>36</td></tr> <tr><td>36K</td><td>-</td><td>-</td></tr> <tr><td>40K</td><td>2.375</td><td>-</td></tr> </tbody> </table>			Entry Code	Max. Cable Dia.	Shell Size Range*	03K	.210	16-36	04K	.310	16-36	06K	.438	16-36	08K	.500	16-36	10K	.625	20-36	12K	.750	20-36	14K	.875	20-36	16K	1.000	22-36	20K	1.250	24-36	24K	1.375	28-36	28K	1.625	32-36	32K	1.875	36	36K	-	-	40K	2.375	-
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36K	-	-																																																																																																																																		
40K	2.375	-																																																																																																																																		
Length	Applies to profile S straight only. 6 = 3 inches (minimum for shell size 16 to 22) 8 = 4 inches (minimum for shell sizes 24 to 36) 10 = 5 inches (minimum when Entry Size is greater than "Maximum Entry Size") 12 = 6 inches 16 = 8 inches																																																																																																																																			

\* If selected entry size exceeds Shell Size Range, a Style 2 transition adapter will be included. See "MAXIMUM ENTRY SIZE AND SHELL SIZE RANGE" table for details.

390PXS055 STRAIGHT BACKSHELL DIMENSIONS					
Shell Size	A Thread	C Hex Flats	ØB Max	ØX Min	Max. Entry Size
16	15/16-20 UNEF	1.25 (31.8)	1.43 (36.3)	.592 (15.0)	08
20	113/16-18 UNEF	1.50 (38.1)	1.71 (43.4)	.832 (21.1)	12
22	15/6-18 UNEF	1.63 (41.4)	1.84 (46.7)	.952 (24.2)	16
24	17/16-18 UNEF	1.75 (44.5)	1.95 (49.5)	1.071 (27.2)	20
28	111/16-18 UNEF	2.00 (50.8)	2.21 (56.1)	1.310 (33.3)	24
32	115/16-20 UN	2.25 (57.2)	2.45 (62.2)	1.549 (39.3)	28
36	23/16-16 UNS	2.50 (63.5)	2.68 (68.1)	1.788 (45.4)	32

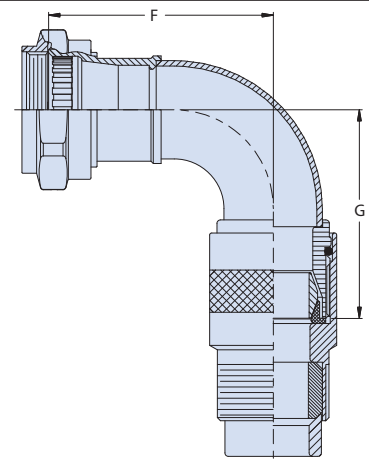
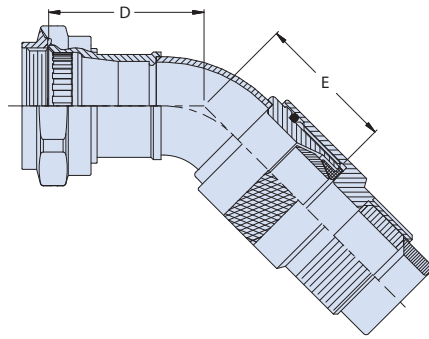


# PowerLoad™ Connector Backshells

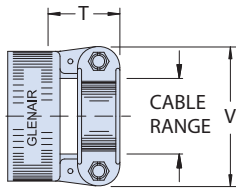
390PX055 EMI/RFI environmental backshell  
 Straight, 45°, 90° configurations • three strain relief options

### 390PXM055 AND 390PXN055 45° AND 90° BACKSHELL DIMENSIONS

Shell Size	D Max	E Max	F Max	G Max	Max. Entry Size
16	1.536 (39.0)	1.050 (26.7)	1.966 (49.9)	1.480 (37.6)	08
20	1.646 (41.8)	1.145 (29.1)	2.221 (56.4)	1.720 (43.7)	12
22	1.698 (43.1)	1.255 (31.9)	2.343 (59.5)	1.900 (48.3)	16
24	1.756 (44.6)	1.300 (33.0)	2.476 (62.9)	2.020 (51.3)	20
28	1.862 (47.3)	1.400 (35.6)	2.732 (69.4)	2.270 (57.7)	24
32	1.972 (50.1)	1.545 (39.2)	2.987 (75.9)	2.560 (65.0)	28
36	2.083 (52.9)	1.720 (43.7)	3.248 (82.5)	2.885 (73.3)	32

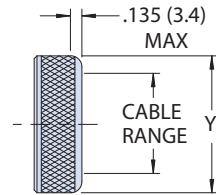


### SADDLE CLAMP DIMENSIONS



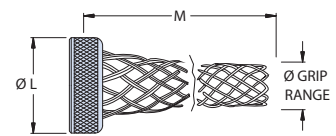
Entry Size	T Max	V Max	Cable Range	
			min	max
04	.780 (19.8)	.957 (24.3)	.125 (3.3)	.312 (7.9)
06	.780 (19.8)	1.145 (29.1)	.250 (6.4)	.437 (11.1)
08	.780 (19.8)	1.332 (33.8)	.387 (9.8)	.562 (14.3)
10	.780 (19.8)	1.332 (33.8)	.350 (8.9)	.625 (15.9)
12	.811 (20.6)	1.551 (39.4)	.500 (12.7)	.750 (19.1)
16	.905 (23.0)	1.770 (45.0)	.625 (15.9)	.937 (23.8)
20	1.092 (27.7)	2.113 (53.7)	.875 (22.2)	1.250 (31.8)
24	1.124 (28.5)	2.363 (60.0)	1.000 (25.4)	1.375 (34.9)
28	1.399 (35.5)	2.770 (70.4)	1.250 (31.8)	1.625 (41.3)
32	1.399 (35.5)	3.020 (76.7)	1.437 (36.5)	1.875 (47.6)
36	1.750 (44.5)	3.250 (82.6)	1.625 (41.3)	2.125 (54.0)
40	1.750 (44.5)	3.500 (88.9)	1.875 (47.6)	2.375 (60.3)

### NUT DIMENSIONS



Entry Size	Y Max	Cable Range
		max
04	.755 (19.2)	.312 (7.9)
06	.942 (23.9)	.438 (11.1)
08	1.067 (27.1)	.562 (14.3)
10	1.192 (30.3)	.625 (15.9)
12	1.380 (35.1)	.750 (19.1)
16	1.535 (39.0)	.938 (23.8)
20	1.848 (46.9)	1.250 (31.8)
24	2.255 (57.3)	1.375 (34.9)
28	2.505 (63.6)	1.625 (41.3)
32	2.755 (70.0)	1.875 (47.6)
36		
40	3.255 (82.7)	2.375 (60.3)

### CABLE GRIP DIMENSIONS



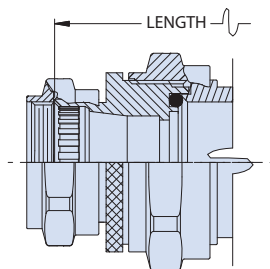
Entry Size	L Max	M Ref	Grip Range Ø	
			min	max
03	.625 (15.9)	2.12 (53.8)	.180 (4.6)	.210 (5.3)
04	.755 (19.2)	2.75 (69.9)	.210 (5.3)	.310 (7.9)
06	.942 (23.9)	4.00 (101.6)	.310 (7.9)	.438 (11.1)
08	1.067 (27.1)	4.12 (104.7)	.438 (11.1)	.500 (12.7)
10	1.192 (30.3)	4.37 (111.0)	.500 (12.7)	.625 (15.9)
12	1.380 (35.1)	5.00 (127.0)	.625 (15.9)	.750 (19.1)
14	1.563 (39.7)	6.00 (152.4)	.750 (19.1)	.875 (22.2)
16	1.563 (39.7)	6.25 (158.8)	.875 (22.2)	1.000 (25.4)
20	1.875 (47.6)	7.25 (184.2)	1.000 (25.4)	1.250 (31.75)
24	2.225 (56.5)	8.00 (203.2)	1.125 (28.6)	1.375 (34.9)
28	2.505 (63.6)	8.50 (215.9)	1.375 (34.9)	1.625 (41.3)
32	2.755 (70.0)	9.00 (228.6)	1.625 (41.3)	1.875 (47.6)
36				
40	3.255 (82.7)	9.50 (241.3)	2.125 (54.0)	2.375 (60.3)

### MAXIMUM ENTRY SIZE AND SHELL SIZE RANGE

If the selected entry size exceeds the maximum size in this table, the backshell will have a front adapter. This is called a **Style 2** backshell.

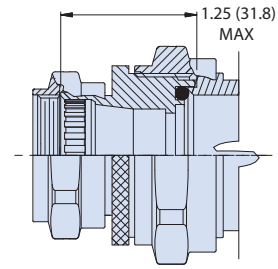
Shell Size	Maximum Entry Size
16	08
20	12
22	16
24	20
28	24
32	28
36	32

#### Style 2 Straight Backshell



Style 2 minimum length code is 10 (5 inches) for profile S straight backshells

#### Style 2 45° and 90° Backshells



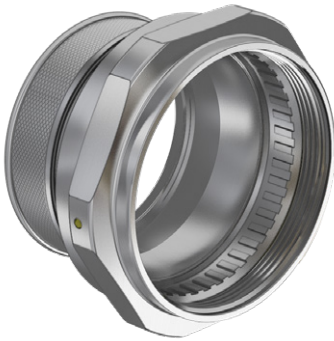
For profile M and N 45° and 90° backshells, the length increases by 1.25 inches

POWERLOAD BACKSHELLS AND ACCESSORIES



# 4470PXS1128 Compression backshell with banding platform

POWERLOAD BACKSHELLS AND ACCESSORIES



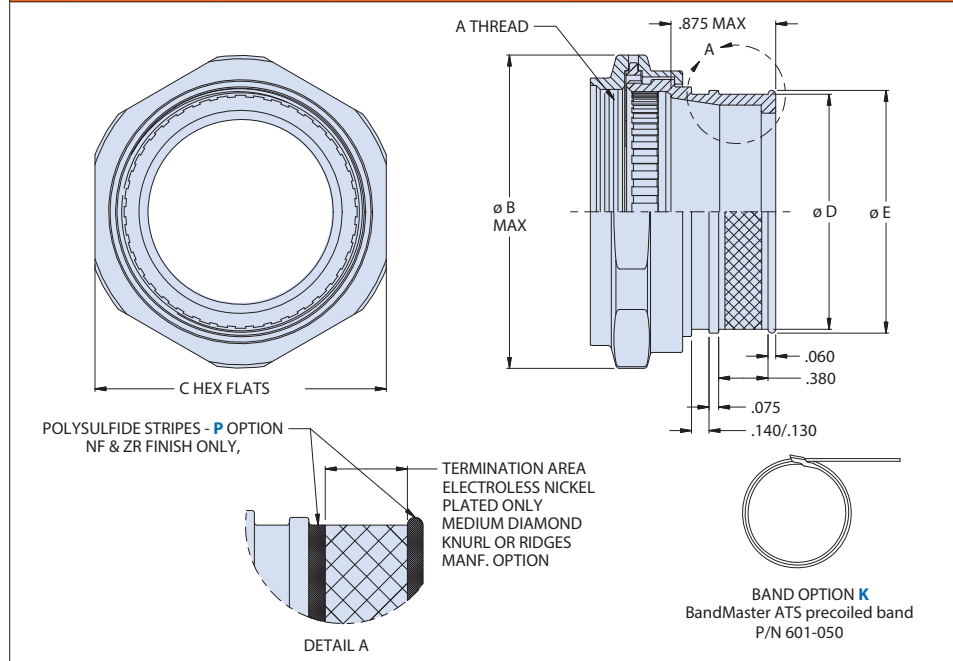
**4470PXS1128 compression backshell with banding platform**

HOW TO ORDER	
<b>Sample Part Number</b>	<b>4470PX S 1128 Z1 28 K P T</b>
<b>Part Series</b>	PowerLoad™ compression backshell with EMI band termination platform
<b>Angle</b>	<b>S</b> = Straight
<b>Basic Number</b>	<b>1128</b>
<b>Material/Finish</b>	<b>ME, MT, NF, ZR, Z1, ZL</b> (See Table)
<b>Shell Size</b>	<b>16, 20, 22, 24, 28, 32, 36</b>
<b>Band Option</b>	<b>K</b> = standard band 601-050 <b>Omit</b> for no band
<b>Polysulfide Option</b>	<b>P</b> = for polysulfide barrier stripes, NF and ZR finishes only (see drawing detail A). <b>Omit</b> if not required
<b>Shrink Boot Option</b>	<b>T</b> = Standard shrink boot (see table, *=1) <b>T1</b> = Std. shrink boot with pre-coated W1 hot-melt adhesive (see table, *=1) <b>H</b> = Zero-halogen shrink boot (see table, *=2) <b>H1</b> Zero-hal shrink boot with pre-coated W1 hot-melt adhesive (see table, *=2) <b>Omit</b> = no boot

**NOTES AND MATERIAL SPECIFICATIONS**

- Backshell is supplied standard with PowerLoad connectors unless otherwise specified
- Choose Band Option "K" for backshell supplied with BandMaster ATS precoiled band (P/N 601-050)
- Choose option P for polysulfide barrier stripes on NF and ZR finished backshells (see drawing detail A)
- Band - CRES / passivated
- Anti-decoupling device - corrosion-resistant material

**BACKSHELL DIMENSIONS AND SHRINK BOOT PART NUMBERS**



MATERIAL / FINISH			
Code	Material	Finish	Temp. Rating
<b>ME</b>	Aluminum	Electroless Nickel	-54°-+200°C
<b>MT</b>		Nickel-PTFE	-54°-+200°C
<b>NF</b>		Cadmium, OD	-54°-+175°C
<b>ZR</b>	Stainless Steel	Zinc-Ni, Black (Tri-Valent CR)	-54°-+175°C
<b>Z1</b>		Passivate	-54°-+230°C
<b>ZL</b>		Electrodeposited Nickel	-54°-+230°C

Shell Size	A Thread Class-2B	øB Max	C Hex	øD	øE	Standard Shrink Boot code T or H	Shrink Boot with Adhesive code T1 or H1
<b>16</b>	15/16-20 UNEF	1.43 (36.3)	1.25 (31.8)	.812 (20.62)	.875 (22.23)	770-001S*04	770-001S*04W1
<b>20</b>	1 3/16-18 UNEF	1.71 (43.4)	1.50 (38.1)	1.062 (26.97)	1.125 (28.58)	770-001S*05	770-001S*05W1
<b>22</b>	1 5/16-18 UNEF	1.84 (46.7)	1.63 (41.4)	1.187 (30.15)	1.250 (31.75)	770-001S*06	770-001S*06W1
<b>24</b>	1 7/16-18 UNEF	1.95 (49.5)	1.75 (44.5)	1.312 (33.32)	1.375 (34.92)	770-001S*07	770-001S*07W1
<b>28</b>	1 11/16-18 UNEF	2.21 (56.1)	2.00 (50.8)	1.562 (39.67)	1.625 (41.28)	770-001S*07	770-001S*07W1
<b>32</b>	1 15/16-20 UN	2.45 (62.2)	2.25 (57.2)	1.812 (46.02)	1.875 (47.63)	770-001S*08	770-001S*08W1
<b>36</b>	2 13/16-16 UNS	2.68 (68.1)	2.50 (63.5)	2.062 (52.37)	2.125 (53.97)	770-001S*09	770-001S*09W1

## 770-001S Environmental heat-shrink boots supplied with 4470PXS1128 backshell

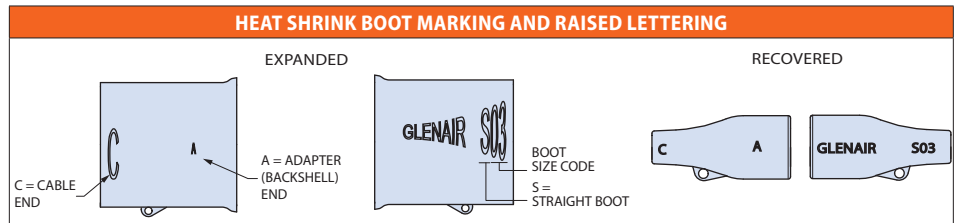


HOW TO ORDER						
<b>Sample Part Number</b>	<b>770-001</b>	<b>S</b>	<b>1</b>	<b>06</b>	<b>W1</b>	
<b>Part Series</b>	Series 77 Environmental heat-shrink boot, lipped, with eyelet					
<b>Angle</b>	<b>S</b> = Straight					
<b>Material/Finish</b>	<b>1</b> = High-performance semi-rigid elastomer (2025) <b>2</b> = Zero-halogen semi-rigid polyolefin (2010)					
<b>Boot size</b>	<b>04, 05, 06, 07, 08, 09</b>					
<b>Adhesive-Lined</b>	<b>W1</b> = with high-temperature hot-melt adhesive (-55° to 125°C)					

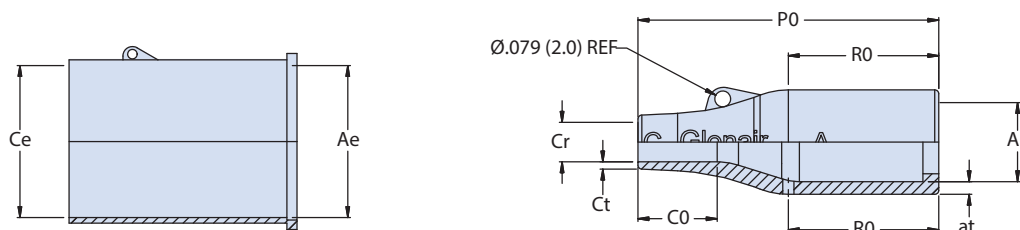
### ENVIRONMENTAL HEAT-SHRINK BOOTS

- Lipped, straight shrink boots provide mechanical and environmental protection from damage and debris.
- Shrink boots are water-tight when equipped with factory installed or user-installed adhesive.
- Lipped boots lock into the boot groove on PowerLoad compression backshells
- Boots come standard with eyelet for attachment of protective covers.

HEAT SHRINK BOOT MATERIAL							
Code	Material Description (Compound No.)	Flexibility	Continuous Operating Temp.	Resistance to Fuels, Oils	Flammability	Low-Temperature Flexibility	Low Toxicity, Zero-Halogen
<b>1</b>	High-Performance Elastomer (2025)	Semi-rigid	-75 °C to +150 °C	Excellent	Self-Extinguishing <15 Sec	-75° C	No
<b>2</b>	Zero Halogen Polyolefin (2010)	Semi-flexible	-40 °C to +130 °C	Very Good	Self-Extinguishing <15 Sec	-40° C	Yes



### DIMENSIONS TABLE



AS SUPPLIED

RECOVERED

Boot Size	Glenair US Part Marking	PowerLoad Shell Size	Ae Dia Min	Ce Dia Min (nominal for material type 2)	Ar Dia Max	at ±30%	Cr Dia Max	Ct ±20%	C0 Ref	P0 ±10%	R0 Ref
<b>04</b>	S04	16	1.181 (30.0)	1.181 (30.0)	.551 (14.0)	.071 (1.8)	.236 (6.0)	.039 (1.0)	.630 (16.0)	2.165 (55.0)	1.181 (30.0)
<b>05</b>	S05	20	1.260 (32.0)	1.260 (32.0)	.709 (18.0)	.071 (1.8)	.276 (7.0)	.047 (1.2)	.748 (19.0)	2.638 (67.0)	1.299 (33.0)
<b>06</b>	S06	22	1.417 (36.0)	1.417 (36.0)	.866 (22.0)	.079 (2.0)	.335 (8.5)	.047 (1.2)	.787 (20.0)	3.150 (80.0)	1.575 (40.0)
<b>07</b>	S07	24, 28	1.693 (43.0)	1.693 (43.0)	1.102 (28.0)	.087 (2.2)	.394 (10.0)	.051 (1.3)	1.142 (29.0)	3.898 (99.0)	2.165 (55.0)
<b>08</b>	S08	32	2.362 (60.0)	2.362 (60.0)	1.378 (35.0)	.130 (3.3)	.591 (15.0)	.063 (1.6)	1.575 (40.0)	5.118 (130.0)	1.969 (50.0)
<b>09</b>	S09	36	2.599 (66.0)	2.599 (66.0)	1.752 (44.5)	.150 (3.8)	.661 (16.8)	.079 (2.0)	2.283 (58.0)	6.693 (170.0)	3.543 (90.0)

## 660-128 Receptacle protective cover

POWERLOAD BACKSHELLS AND ACCESSORIES



**PowerLoad Receptacle Cover**

MATERIAL / FINISH		
Code	Material	Finish
ME	Aluminum	Electroless Nickel
MT		Nickel-PTFE
NF		Cadmium, OD
ZR		Zinc-Ni, Black (Tri-Valent CR)
Z1	Stainless	Passivate
ZL	Steel	Electrodeposited Nickel

ATTACHMENT TYPE	
<b>D</b>	<p><b>SST Bead Chain</b> .125 (3.2) dia., size 6, -65 to +200°C</p>
<b>F</b>	<p><b>Wire Rope, Blue Nylon Jacket</b> 6/6 nylon over stainless steel rope, fair flexibility, good abrasion resistance, -55 to +100°C</p>
<b>G</b>	<p><b>Black Nylon Rope</b> Very flexible, good abrasion and fuel resistance, .094 (2.4) dia., -55 to +100°C</p>
<b>H</b>	<p><b>Wire Rope, Clear FEP Jacket</b> Clear FEP jacket over SST rope, fair flexibility, good abrasion resistance, .100 diameter, -65 to +200°C</p>
<b>S</b>	<p><b>Sash Chain</b> #8 sash chain, stainless steel. Length tolerance is ± one link .280 (7.1)</p>
<b>SK</b>	<p><b>Nylon Rope with Slip Knot</b> Very flexible, good abrasion and fuel resistance, .094 (2.4) diameter. Length includes .5 (13) dia. loop, -55 to +100°C</p>
<b>T</b>	<p><b>SST Wire Rope, No Jacket</b> Good flexibility, good abrasion resistance, .047 (1.2) diameter, passivated, -65 to +200°C</p>
<b>U</b>	<p><b>Wire Rope, Black Polyurethane</b> Stainless steel rope, black polyurethane coating, flexible, excellent abrasion and fuel resistance, .080" (2mm) dia., -55 to +125°C</p>

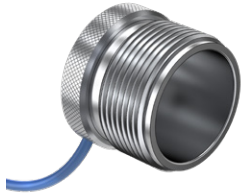
HOW TO ORDER						
<b>Sample Part Number</b>	<b>660-128</b>	<b>ME</b>	<b>16</b>	<b>R</b>	<b>5</b>	<b>-04</b>
<b>Basic Part Number</b>	PowerLoad™ Receptacle Protective Cover					
<b>Material/Finish</b>	<b>ME, MT, NF, ZR, Z1, ZL</b> (See Table)					
<b>Shell Size</b>	<b>16, 20, 22, 24, 28, 32, 36</b>					
<b>Attachment Type</b>	See table. <b>N</b> = No Attachment					
<b>Attachment Length</b>	Length in inches. <b>Omit</b> for Attachment Type N)					
<b>Attachment Ring</b>	See table. <b>-00</b> = No Ring. <b>Omit</b> for Attachment Types N and SK					

COVER DIMENSIONS			
	Shell Size	E Thread	ØF Max
	16	1.000-0.1P-0.3L-TS-2A	1.26 (32.0)
	20	1.250-0.1P-0.3L-TS-2A	1.51 (38.4)
	22	1.375-0.1P-0.3L-TS-2A	1.63 (41.4)
	24	1.500-0.1P-0.3L-TS-2A	1.76 (44.7)
	28	1.750-0.1P-0.3L-TS-2A	2.01 (51.1)
	32	2.000-0.1P-0.3L-TS-2A	2.26 (57.4)
	36	2.250-0.1P-0.3L-TS-2A	2.51 (63.8)

ATTACHMENT RING							
EYELET		STYLE A RING		STYLE B RING		SPLIT RING	
Code	Eyelet I.D. ± .010 (0.3)	Code	Ring I.D. ± .015 (0.4)	Code	Ring I.D. ± .015 (0.4)	Code	Ring I.D. ± .015 (0.4)
-01	.140 (3.6)	-095	.312 (7.9)	-10	.593 (15.1)	-50	.425 (10.8)
-02	.182 (4.6)	-100	.391 (9.9)	-12	.718 (18.2)	-52	.485 (12.3)
-03	.191 (4.9)	-101	.516 (13.1)	-13	.765 (19.4)	-54	.640 (16.3)
-04	.197 (5.0)	-103	.641 (16.3)	-14	.844 (21.4)	-56	.750 (19.1)
-05	.167 (4.2)	-104	.708 (18.0)	-15	.890 (22.6)	-58	.890 (22.6)
-06	.125 (3.2)	-105	.766 (19.5)	-17	1.015 (25.8)	-60	1.015 (25.8)
-07	.218 (5.5)	-106	.896 (22.8)	-19	1.140 (29.0)	-62	1.095 (27.8)
-09	.156 (4.0)	-107	1.016 (25.8)	-20	1.203 (30.6)	-64	1.130 (28.7)
<b>CABLE TIE</b>		-108	1.141 (29.0)	-21	1.265 (32.1)	-66	1.250 (31.8)
		-208	1.203 (30.6)	-22	1.343 (34.1)	-68	1.350 (34.3)
<b>-WS</b> Black 6/6 nylon cable tie 1.77 (45.0) max. wire bundle dia.		-109	1.266 (32.2)	-24	1.484 (37.7)	-70	1.375 (34.9)
		-110	1.391 (35.3)	-27	1.640 (41.7)	-72	1.485 (37.7)
		-111	1.521 (38.6)	-29	1.765 (44.8)	-74	1.625 (41.3)
		-112	1.641 (41.7)	-30	1.890 (48.0)	-76	1.750 (44.5)
		-113	1.766 (44.9)	-31	1.953 (49.6)	-80	1.980 (50.3)
		-114	1.891 (48.0)	-33	2.077 (52.8)	-84	2.235 (56.8)
		-115	2.078 (52.8)	-36	2.187 (55.5)	-86	2.310 (58.7)

# PowerLoad™ Connector Backshells

## 660-129 Plug protective cover



**PowerLoad Plug Cover**

MATERIAL / FINISH		
Code	Material	Finish
ME	Aluminum	Electroless Nickel
MT		Nickel-PTFE
NF		Cadmium, OD
ZR		Zinc-Ni, Black (Tri-Valent CR)
Z1	Stainless	Passivate
ZL	Steel	Electrodeposited Nickel

ATTACHMENT TYPE	
<b>D</b>	<p><b>SST Bead Chain</b> .125 (3.2) dia., size 6, -65 to +200°C</p>
<b>F</b>	<p><b>Wire Rope, Blue Nylon Jacket</b> 6/6 nylon over stainless steel rope, fair flexibility, good abrasion resistance, -55 to +100°C</p>
<b>G</b>	<p><b>Black Nylon Rope</b> Very flexible, good abrasion and fuel resistance, .094 (2.4) dia., -55 to +100°C</p>
<b>H</b>	<p><b>Wire Rope, Clear FEP Jacket</b> Clear FEP jacket over SST rope, fair flexibility, good abrasion resistance, .100 diameter, -65 to +200°C</p>
<b>S</b>	<p><b>Sash Chain</b> #8 sash chain, stainless steel. Length tolerance is ± one link .280 (7.1)</p>
<b>SK</b>	<p><b>Nylon Rope with Slip Knot</b> Very flexible, good abrasion resistance, .094 (2.4) diameter. Length includes .5 (13) dia. loop, -55 to +100°C</p>
<b>T</b>	<p><b>SST Wire Rope, No Jacket</b> Good flexibility, good abrasion resistance, .047 (1.2) diameter, passivated, -65 to +200°C</p>
<b>U</b>	<p><b>Wire Rope, Black Polyurethane</b> Stainless steel rope, black polyurethane coating, flexible, excellent abrasion and fuel resistance, .080" (2mm) dia., -55 to +125°C</p>

HOW TO ORDER						
<b>Sample Part Number</b>	<b>660-129</b>	<b>ME</b>	<b>16</b>	<b>R</b>	<b>5</b>	<b>-04</b>
<b>Basic Part Number</b>	PowerLoad™ Plug Protective Cover					
<b>Material/Finish</b>	<b>ME, MT, NF, ZR, Z1, ZL</b> (See Table)					
<b>Shell Size</b>	<b>16, 20, 22, 24, 28, 32, 36</b>					
<b>Attachment Type</b>	See table. <b>N</b> = No Attachment					
<b>Attachment Length</b>	Length in inches. <b>Omit</b> for Attachment Type N)					
<b>Attachment Ring</b>	See table. <b>-00</b> = No Ring. <b>Omit</b> for Attachment Types N and SK					

COVER DIMENSIONS			
<p>Diagram showing cover dimensions: MASTER KEYWAY, E THREAD, .955 MAX, ØF, KNURL STYLE MFR OPTION, ATTACHMENT LENGTH ±.25 (6.4)</p>	Shell Size	E Thread	ØF Max
	16	1.000-0.1P-0.3L-TS-2A	1.25 (31.8)
	20	1.250-0.1P-0.3L-TS-2A	1.50 (38.1)
	22	1.375-0.1P-0.3L-TS-2A	1.63 (41.4)
	24	1.500-0.1P-0.3L-TS-2A	1.75 (44.5)
	28	1.750-0.1P-0.3L-TS-2A	2.00 (50.8)
	32	2.000-0.1P-0.3L-TS-2A	2.25 (57.2)
36	2.250-0.1P-0.3L-TS-2A	2.50 (63.5)	

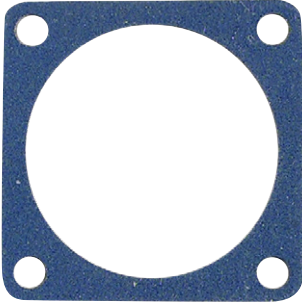
ATTACHMENT RING							
EYELET		STYLE A RING		STYLE B RING		SPLIT RING	
Code	Eyelet I.D. ± .010 (0.3)	Code	Ring I.D. ± .015 (0.4)	Code	Ring I.D. ± .015 (0.4)	Code	Ring I.D. ± .015 (0.4)
-01	.140 (3.6)	-095	.312 (7.9)	-10	.593 (15.1)	-50	.425 (10.8)
-02	.182 (4.6)	-100	.391 (9.9)	-12	.718 (18.2)	-52	.485 (12.3)
-03	.191 (4.9)	-101	.516 (13.1)	-13	.765 (19.4)	-54	.640 (16.3)
-04	.197 (5.0)	-103	.641 (16.3)	-14	.844 (21.4)	-56	.750 (19.1)
-05	.167 (4.2)	-104	.708 (18.0)	-15	.890 (22.6)	-58	.890 (22.6)
-06	.125 (3.2)	-105	.766 (19.5)	-17	1.015 (25.8)	-60	1.015 (25.8)
-07	.218 (5.5)	-106	.896 (22.8)	-19	1.140 (29.0)	-62	1.095 (27.8)
-09	.156 (4.0)	-107	1.016 (25.8)	-20	1.203 (30.6)	-64	1.130 (28.7)
<b>CABLE TIE</b>		-108	1.141 (29.0)	-21	1.265 (32.1)	-66	1.250 (31.8)
		-208	1.203 (30.6)	-22	1.343 (34.1)	-68	1.350 (34.3)
<b>-WS</b> Black 6/6 nylon cable tie 1.77 (45.0) max. wire bundle dia.		-109	1.266 (32.2)	-24	1.484 (37.7)	-70	1.375 (34.9)
		-110	1.391 (35.3)	-27	1.640 (41.7)	-72	1.485 (37.7)
		-111	1.521 (38.6)	-29	1.765 (44.8)	-74	1.625 (41.3)
		-112	1.641 (41.7)	-30	1.890 (48.0)	-76	1.750 (44.5)
		-113	1.766 (44.9)	-31	1.953 (49.6)	-80	1.980 (50.3)
		-114	1.891 (48.0)	-33	2.077 (52.8)	-84	2.235 (56.8)
		-115	2.078 (52.8)	-36	2.187 (55.5)	-86	2.310 (58.7)

POWERLOAD BACKSHELLS AND ACCESSORIES



930-026 Gasket for flange-mount connectors

POWERLOAD BACKSHELLS AND ACCESSORIES



**930-026 panel-sealing gasket for flange-mount PowerLoad connectors**

**GASKET FEATURES**

- Fluorosilicone and Viton versions provide environmental protection to panel-mounted PowerLoad connectors.
- Conductive silver-plated aluminum-filled fluorosilicone versions provide additional EMI protection

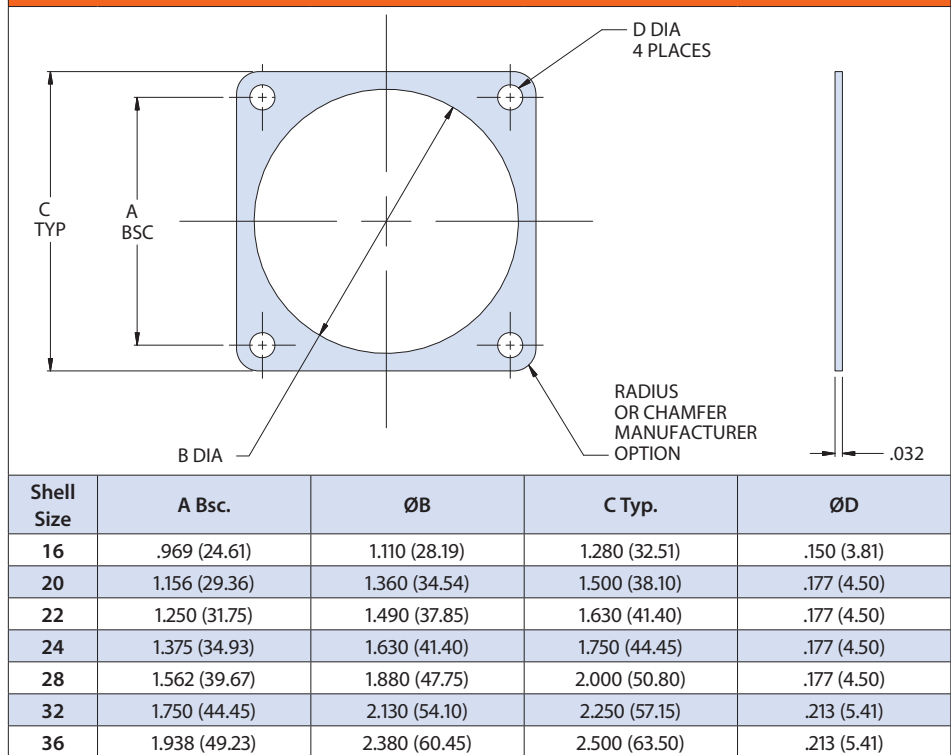
**GASKET MATERIAL**

Code	Sealing Property	Description
<b>X</b>	Conductive for EMI protection and environmental seal	Silver-plated aluminum-filled fluorosilicone IAW MIL-G-83528 Type D
<b>F</b>	Non-conductive for environmental sealing	FVMQ non-conductive fluorosilicone
<b>V</b>		FKM Viton

**HOW TO ORDER**

<b>Sample Part Number</b>	<b>930-026</b>	<b>X</b>	<b>16</b>
<b>Part Series</b>	Panel-sealing gasket for flange-mount PowerLoad connectors		
<b>Material/Finish</b>	<b>X, F, V</b> (See Table)		
<b>Shell Size</b>	<b>16, 20, 22, 24, 28, 32, 36</b>		

**BACKSHELL DIMENSIONS**



# PowerLoad™ Connector Backshells

600-289 connector holding tools  
 600-286 / 600-288 “crow’s foot” torquing wrenches



**PowerLoad Connector Holding Tool (plug holder pictured)**

### NOTES AND MATERIAL SPECIFICATIONS

- Heat-treated steel alloy / nickel finish
- Use with 3/8" drive torque wrench or proper adapter

POWERLOAD CONNECTOR HOLDING TOOLS				
Sample Part Number	600-289	28	R	-04
Basic Part Number	PowerLoad™ Plug Protective Cover			
Connector Shell Size	16, 20, 22, 24, 28, 32, 36			
Tool Type	P = Plug Holder R = Receptacle Holder			
Polarization	1, 2, 3, 4, 5, 6			

COVER DIMENSIONS			
<p>PLUG HOLDER</p>	Shell Size	ØA	ØB
	16	0.91 (23.1)	0.75 (19.1)
<p>RECEPTACLE HOLDER</p>	20	1.16 (29.5)	1.00 (5.4)
	22	1.28 (32.5)	1.13 (28.7)
<p>RECEPTACLE HOLDER</p>	24	1.41 (35.8)	1.25 (31.8)
	28	1.66 (42.2)	1.50 (38.1)
<p>RECEPTACLE HOLDER</p>	32	1.91 (48.5)	1.75 (44.5)
	36	2.16 (54.9)	2.00 (50.8)

POWERLOAD “CROW’S FOOT” TORQUING HEX WRENCH			
Sample Part Number	600	-286	28
Basic Part Number	“Crow’s Foot” torquing hex wrench		
Wrench Type	-286 = for PowerLoad plug connector -288 = for PowerLoad backshell		
Shell Size	16, 20, 22, 24, 28, 32, 36		

### NOTES AND MATERIAL SPECIFICATIONS

- Passivated 300 series stainless steel
- Connector wrench for use with PowerLoad plug connectors
- Backshell wrench for use with standard PowerLoad backshell (P/N 4470PXS1128)
- Use with 3/8" drive torque wrench or proper adapter
- For proper hex clearance, torque wrench head must not exceed Ø 1.50"

WRENCH DIMENSIONS					
	Shell Size	600-286 Connector Wrench		600-288 Backshell Wrench	
		A Hex	B Offset	A Hex	B Offset
	16	1.375 (34.9)	1.61 (40.9)	1.25 (31.8)	1.54 (39.1)
	20	1.625 (41.3)	1.75 (44.5)	1.50 (38.1)	1.68 (42.7)
	22	1.750 (44.5)	1.83 (46.5)	1.63 (41.4)	1.75 (44.5)
	24	1.875 (47.6)	1.90 (48.3)	1.75 (44.5)	1.83 (46.5)
	28	2.140 (54.4)	2.05 (52.1)	2.00 (50.8)	1.97 (50.0)
	32	2.500 (63.5)	2.26 (57.4)	2.25 (57.2)	2.11 (53.6)
	36	2.750 (69.9)	2.40 (61.0)	2.50 (63.5)	2.26 (57.4)

POWERLOAD BACKSHELLS AND ACCESSORIES

Ultra flexible and rugged power distribution cables with FEP and Duraelectric™ jacketing



Power distribution cables present a unique challenge to electrical wire interconnect system engineers. Typically fabricated from stiff, non-flexible conductors with extremely large bend radii, such cables are heavy, hard to route, and prone to jacket damage from weathering and abrasion. TurboFlex® power distribution cables are constructed from high strand-count rope-lay inner conductors made with tin-, nickel-, and silver-plated copper. These highly-flexible conductors, insulated with FEP or Glenair signature Duraelectric jacketing result in cables ideally suited for applications where flexibility, durability, and weight reduction are required.

Amazingly durable—especially in cold weather—TurboFlex cable with Duraelectric insulation provides outstanding resistance to temperature extremes, ozone exposure, caustic chemicals including jet fuel, gamma radiation, and other forms of environmental and mechanical damage. Long life and performance are critical in power distribution applications. TurboFlex, with its flexible conductors and durable insulation delivers both. Consult factory for lightweight aluminum version.

- Ultra-flexible rope lay power cable construction
- Wire gauges and insulation optimized for PowerLoad™ connectors
- Four TurboFlex configurations with ruggedized FEP or Duraelectric jacketing:
  - Standard single-wall
  - Lightweight thin-wall
  - “Tell-Tale” dual-wall
  - Shielded high-voltage



TurboFlex bend radius (Duraelectric jacketing) is 3X the outer diameter



Power cable assembly with Duraelectric™ D jacketing / overmolding in OSHA safety orange



Wide range of available sizes— from 8AWG to 4/0



# Pairing compression grommet series PowerLoad connectors with TurboFlex wire

Use the table below to match the contact / cavity gauge of compression-grommet-equipped PowerLoad connectors with appropriate TurboFlex cable. Single-wall insulation cables are for hookup applications. Dual-wall construction (jacket and insulation) are for interconnect cabling. Three insulation materials are available: FEP, Duraelectric, and Duraelectric Light. Cable and connector combinations indicated with a "✓" are fully-compatible. Combinations indicated with a "∅" are not available. Certain combinations (indicated with a "+") require a special wire termination process to accommodate thicker cable diameters.

PowerLoad Contact / Cavity Gauge (AWG)	SINGLE-WALL HOOKUP WIRE					DUAL-WALL INTERCONNECT CABLE					
	961-102-2000	961-106-1500	961-106-2000	961-108-1500	961-108-2000	961-103-2000	961-104-2000	961-107-1500	961-107-2000	961-109-1500	961-109-2000
	FEP Insulation	Duraelectric Insulation		Duraelectric Light Insulation		FEP Insulation		Duraelectric Insulation		Duraelectric Light Insulation	
	N/A	N/A		N/A		FEP Jacket	Duraelectric Jacket	Duraelectric Jacket		Duraelectric Light Jacket	
	2000 VAC	1500 VAC	2000 VAC	1500 VAC	2000 VAC	2000 VAC	2000 VAC	1500 VAC	2000 VAC	1500 VAC	2000 VAC
	200°	200°	200°	200°	200°	200°	200°	200°	200°	200°	200°
8	✓	✓	✓	✓	✓	+	+	✓	+	✓	+
4	∅	✓	✓	✓	✓	∅	∅	✓	+	✓	+
2	∅	✓	✓	✓	✓	∅	∅	✓	+	✓	✓
0	∅	✓	✓	✓	✓	∅	∅	✓	+	✓	✓
00	∅	∅	✓	∅	✓	∅	∅	✓	✓	✓	✓
0000	∅	∅	✓	∅	✓	∅	∅	✓	+	✓	+

✓ = fully compatible ∅ = not available + = compatible, but requires special termination process  
 Note: bonded-grommet PowerLoad connectors are fully compatible with all TurboFlex configurations

INTRODUCTION

## ABOUT TURBOFLEX WITH DURALECTRIC™ D JACKETING

Duraelectric™ D is a Glenair Signature elastomeric material used in wire insulation, cable and conduit jacketing, overmolding, and shrink boots. Glenair TurboFlex high-flexibility power distribution cables are supplied with Duraelectric jacketing in different wall thicknesses, as well as "tell-tale" dual-layering.

TurboFlex core conductors are available in three aerospace-grade material and temperature configurations:

- T = Tin/Copper (-60° – 150°C),
- S = Silver/Copper (-60° – 200°C)
- N = Nickel/Copper (-60° – 260°C)

A signature configuration of TurboFlex is available with high-temperature shielding and lightweight aluminum conductors.



DURALECTRIC™ D PHYSICAL PROPERTIES		
Property	Typical Result	Test Method
Hardness, Shore A	60	ASTM D2240
Tensile Strength, psi	1100	ASTM D412
Elongation, %	500	ASTM D412
Tear Strength, Die B, ppi	150	ASTM D624
Low Temperature Impact at -65°C	Pass/No Cracks	ASTM D2137
Accelerated UV/Sunlight Resistance, 53 yr. Equiv. Exposure	Pass/Excellent	IEC 60068-2-5
Ozone Resistance	Pass/No Cracks	ASTM D1149
Zero Halogen	Pass	IEC 754-1

DURALECTRIC™ D ELECTRICAL PROPERTIES		
Property	Typical Result	Test Method
Dielectric Strength, kV/mm	19	ASTM D419
Comparative Tracking Index, VAC	> 600	ASTM D3638

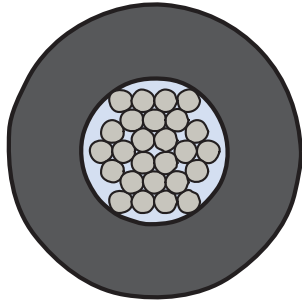
DURALECTRIC™ D FIRE RESISTANCE PROPERTIES	
Property	Typical Result
<b>Flammability</b>	
Oxygen Index, %	45
FAR 25.853, 12 Second Vertical	Pass
FAR 25.853, 60 Degree	Pass
FAR 27.1365 b,c	Pass
BSS7230 Method F2	Pass
IEC60614-1	Pass
EN60695-2-12, 850°C Glow-Wire	Pass
UL1685 FT4/IEEE1202	Pass
<b>Smoke Density</b>	
BSS7238	Pass
NES 711	Pass
EN 60695-2-11	Pass
UL1685 FT4/IEEE1202	Pass
<b>Combustion Toxicity</b>	
BSS7239	Pass
NES 713	Pass
SMP800 C	Pass

## GENERAL DURALECTRIC D PERFORMANCE SUMMARY

- Service Temperature Range: -65°C to 260°C
- Fire Resistant and Low Smoke-Zero Halogen (LSZH)
- RoHS materials
- Resistant to common aerospace, military and industrial fluids
- UV resistant



961-106-1500 Single-wall hookup wire  
 Duraelectric™ insulation, 1500 VAC



961-106-1500 with single-wall Duraelectric insulation

HOW TO ORDER						
Sample Part Number	961	-106	-1500	-0	-N	-0
Basic No.	TurboFlex single-wall hookup wire					
Insulation Material	-106 = Duraelectric					
Voltage Rating	-1500 = 1500 VAC					
Wire Size Code (See Table I)	-8, -4, -2, -0					
Conductor Material	-N = Nickel/Copper (-60° – 260°C)		-S = Silver/Copper (-60° – 200°C)			
	-T = Tin/Copper (-60° – 150°C)					
Insulation Color	See Insulation Color table					

POWERLOAD COMPATIBILITY	
PowerLoad Contact / Cavity Gauge (AWG)	SINGLE-WALL HOOKUP WIRE
	Duraelectric Insulation
	N/A
	1500 VAC
	260°
8	✓
4	✓
2	✓
0	✓
00	∅
0000	∅
✓ = fully compatible ∅ = not available	

TURBOFLEX WIRE SIZE, DIMENSIONS, DC RESISTANCE AND AMPACITY RATINGS									
Wire Size Code	AWG	Strand / Count / AWG	Cir Mil (nom)	Weight lbs/1000 ft. (nom.)	Ø A ±.025	Ø B Ref.	DC Resistance @ 20°C (Ohms / 1000 ft.)		
							Nickel Copper	Silver Copper	Tin Copper
8	8	7 X 95/36	16625	66.17	.233 (5.92)	.159 (4.04)	.7188	.6755	.7252
4	4	7 X 7 X 34/36	41650	158.59	.347 (8.81)	.271 (6.88)	.2979	.2800	.3006
2	2	7 X 7 X 54/36	66150	244.23	.419 (10.64)	.342 (8.69)	.1876	.1763	.1893
0	1/0	7 X 7 X 86/36	105350	380.32	.511 (12.98)	.431 (10.95)	.1178	.1107	.1188

TURBOFLEX CABLE

**TURBOFLEX FEATURES**

- Ultra-flexible rope lay power cable construction
- Wire gauges and insulation optimized for PowerLoad™ connectors
- Equipped with ruggedized Duraelectric insulation

**NOTES**

1. Bend radius is 4X – 12X the outer diameter (ØA) depending on application requirements
2. Cable marked with "GLENAIR TURBOFLEX", wire gauge, part number, CAGE 06324.



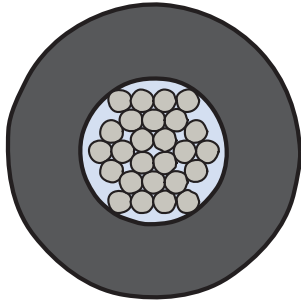
**DURAELECTRIC D PERFORMANCE SUMMARY**

- Service temperature range: -65°C to +260°C
- Fire-resistant and Low Smoke-Zero Halogen (LSZH)
- Resistant to common aerospace, military and industrial fluids
- UV resistant

INSULATION COLOR PER MIL-STD-681	
0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Gray
9	White

# 961-106-2000 Single-wall hookup wire Duraelectric™ insulation, 2000 VAC

TURBOFLEX CABLE



**961-106-2000 with single-wall Duraelectric insulation**

HOW TO ORDER						
<b>Sample Part Number</b>	<b>961</b>	<b>-106</b>	<b>-2000</b>	<b>-00</b>	<b>-N</b>	<b>-0</b>
<b>Basic No.</b>	TurboFlex single-wall hookup wire					
<b>Insulation Material</b>	-106 = Duraelectric					
<b>Voltage Rating</b>	-2000 = 2000 VAC					
<b>Wire Size Code (See Table I)</b>	-8, -4, -2, -0, -00, -0000					
<b>Conductor Material</b>	-N = Nickel/Copper (-60° – 260°C) -S = Silver/Copper (-60° – 200°C) -T = Tin/Copper (-60° – 150°C)					
<b>Insulation Color</b>	See Insulation Color table					

POWERLOAD COMPATIBILITY	
PowerLoad Contact / Cavity Gauge (AWG)	SINGLE-WALL HOOKUP WIRE
	Duraelectric Insulation
	N/A
	2000 VAC
	260°
8	✓
4	✓
2	✓
0	✓
00	✓
0000	✓
✓ = fully compatible	

TURBOFLEX WIRE SIZE, DIMENSIONS, DC RESISTANCE AND AMPACITY RATINGS									
Wire Size Code	AWG	Strand / Count / AWG	Cir Mil (nom)	Weight lbs/1000 ft. (nom.)	Ø A ±.025	Ø B Ref.	DC Resistance @ 20°C (Ohms / 1000 ft.)		
							Nickel Copper	Silver Copper	Tin Copper
8	8	7 X 95/36	16625	74.91	.270 (6.86)	.159 (4.04)	.7188	.6755	.7252
4	4	7 X 7 X 34/36	41650	171.48	.384 (9.75)	.271 (6.88)	.2979	.2800	.3006
2	2	7 X 7 X 54/36	66150	259.67	.456 (11.58)	.342 (8.69)	.1876	.1763	.1893
0	1/0	7 X 7 X 86/36	105350	399.00	.548 (13.92)	.431 (10.95)	.1178	.1107	.1188
00	2/0	7 X 7 X 108/36	132300	493.47	.601 (15.27)	.483 (12.27)	.0938	.0882	.0946
0000	4/0	19 X 7 X 64/36	212800	779.79	.734 (18.64)	.613 (15.57)	.0588	.0553	.0594

### TURBOFLEX FEATURES

- Ultra-flexible rope lay power cable construction
- Wire gauges and insulation optimized for PowerLoad™ connectors
- Equipped with ruggedized Duraelectric insulation

### NOTES

- Bend radius is 4X – 12X the outer diameter (ØA) depending on application requirements
- Cable marked with "GLENAIR TURBOFLEX", wire gauge, part number, CAGE 06324.

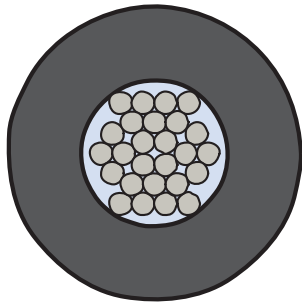


### DURALECTRIC D PERFORMANCE SUMMARY

- Service temperature range: -65°C to +260°C
- Fire-resistant and Low Smoke-Zero Halogen (LSZH)
- Resistant to common aerospace, military and industrial fluids
- UV resistant

INSULATION COLOR PER MIL-STD-681	
0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Gray
9	White

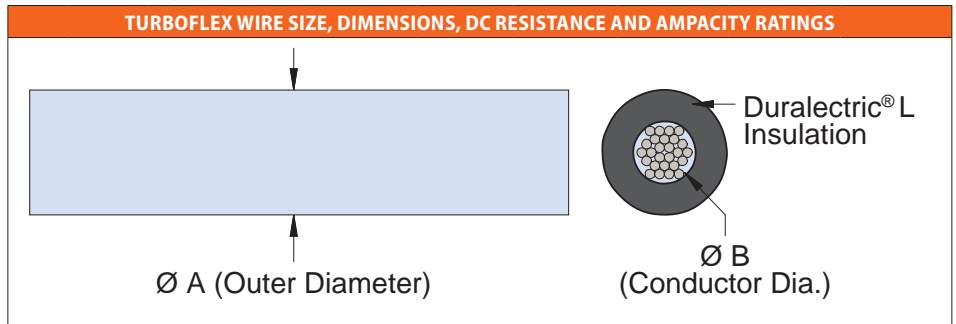
961-108-1500 Single-wall hookup wire  
 Duraelectric™ Light insulation, 1500 VAC



961-108-1500 with single-wall Duraelectric Light insulation

HOW TO ORDER						
Sample Part Number	961	-108	-1500	-0	-N	-0
Basic No.	TurboFlex single-wall hookup wire					
Insulation Material	-108 = Duraelectric Light					
Voltage Rating	-1500 = 1500 VAC					
Wire Size Code (See Table I)	-8, -4, -2, -0					
Conductor Material	-N = Nickel/Copper (-60° – 260°C)		-S = Silver/Copper (-60° – 200°C)			
	-T = Tin/Copper (-60° – 150°C)					
Insulation Color	See Insulation Color table					

POWERLOAD COMPATIBILITY	
PowerLoad Contact / Cavity Gauge (AWG)	<b>SINGLE-WALL HOOKUP WIRE</b>
	<b>961-108-1500</b>
	Duraelectric Light Insulation
	N/A
	1500 VAC
	200°
8	✓
4	✓
2	✓
0	✓
00	∅
0000	∅
✓ = fully compatible ∅ = not available	



Wire Size Code	AWG	Strand / Count / AWG	Cir Mil (nom)	Weight lbs/1000 ft. (nom.)	Ø A ±.025	Ø B Ref.	DC Resistance @ 20°C (Ohms / 1000 ft.)		
							Nickel Copper	Silver Copper	Tin Copper
8	8	7 X 95/36	16625	59.90	.220 (5.59)	.159 (4.04)	.7188	.6755	.7252
4	4	7 X 7 X 34/36	41650	148.66	.334 (8.48)	.271 (6.88)	.2979	.2800	.3006
2	2	7 X 7 X 54/36	66150	231.95	.406 (10.31)	.342 (8.69)	.1876	.1763	.1893
0	1/0	7 X 7 X 86/36	105350	364.75	.498 (12.65)	.431 (10.95)	.1178	.1107	.1188

TURBOFLEX CABLE

- TURBOFLEX FEATURES**
- Ultra-flexible rope lay power cable construction
  - Wire gauges and insulation optimized for PowerLoad™ connectors
  - Equipped with weight-saving Duraelectric Light insulation

- NOTES**
- Bend radius is 4X – 12X the outer diameter (ØA) depending on application requirements
  - Cable marked with "GLENAIR TURBOFLEX", wire gauge, part number, CAGE 06324.

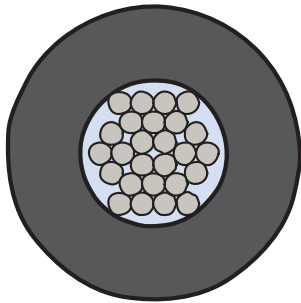


- DURAELECTRIC LIGHT PERFORMANCE SUMMARY**
- Service temperature range: -65°C to +200°C
  - Fire-resistant and Low Smoke-Zero Halogen (LSZH)
  - Excellent abrasion resistance
  - 30% lighter than Duraelectric D
  - 50% lighter than Teflon®

INSULATION COLOR PER MIL-STD-681	
0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Gray
9	White

# 961-108-2000 Single-wall hookup wire Duraelectric™ Light insulation, 2000 VAC

TURBOFLEX CABLE



**961-108-2000 with single-wall Duraelectric Light insulation**

POWERLOAD COMPATIBILITY	
PowerLoad Contact / Cavity Gauge (AWG)	SINGLE-WALL HOOKUP WIRE
	Duraelectric Light Insulation
	N/A
	2000 VAC
	200°
8	✓
4	✓
2	✓
0	✓
00	✓
0000	✓
✓ = fully compatible	

### TURBOFLEX FEATURES

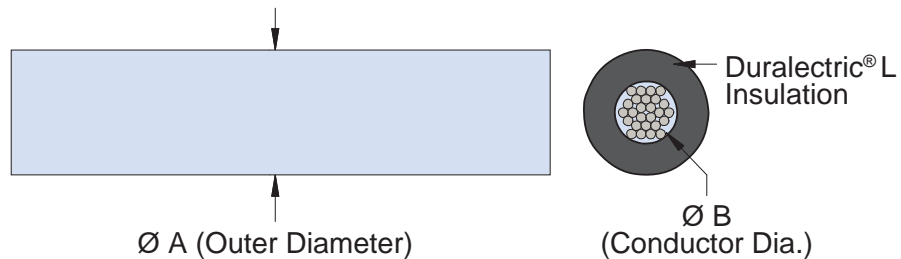
- Ultra-flexible rope lay power cable construction
- Wire gauges and insulation optimized for PowerLoad™ connectors
- Equipped with weight-saving Duraelectric Light insulation

### NOTES

1. Bend radius is 4X – 12X the outer diameter (ØA) depending on application requirements
2. Cable marked with "GLENAIR TURBOFLEX", wire gauge, part number, CAGE 06324.

HOW TO ORDER						
<b>Sample Part Number</b>	<b>961</b>	<b>-108</b>	<b>-2000</b>	<b>-00</b>	<b>-N</b>	<b>-0</b>
<b>Basic No.</b>	TurboFlex single-wall hookup wire					
<b>Insulation Material</b>	-108 = Duraelectric Light					
<b>Voltage Rating</b>	-2000 = 2000 VAC					
<b>Wire Size Code (See Table I)</b>	-8, -4, -2, -0, -00, -0000					
<b>Conductor Material</b>	-N = Nickel/Copper (-60° – 260°C) -S = Silver/Copper (-60° – 200°C) -T = Tin/Copper (-60° – 150°C)					
<b>Insulation Color</b>	See Insulation Color table					

### TURBOFLEX WIRE SIZE, DIMENSIONS, DC RESISTANCE AND AMPACITY RATINGS



Wire Size Code	AWG	Strand / Count / AWG	Cir Mil (nom)	Weight lbs/1000 ft. (nom.)	Ø A ±.025	Ø B Ref.	DC Resistance @ 20°C (Ohms / 1000 ft.)		
							Nickel Copper	Silver Copper	Tin Copper
8	8	7 X 95/36	16625	64.51	.250 (6.35)	.159 (4.04)	.7188	.6755	.7252
4	4	7 X 7 X 34/36	41650	155.50	.364 (9.25)	.271 (6.88)	.2979	.2800	.3006
2	2	7 X 7 X 54/36	66150	240.20	.436 (11.07)	.342 (8.69)	.1876	.1763	.1893
0	1/0	7 X 7 X 86/36	105350	374.81	.528 (13.41)	.431 (10.95)	.1178	.1107	.1188
00	2/0	7 X 7 X 108/36	132300	466.58	.581 (14.76)	.483 (12.27)	.0938	.0882	.0946
0000	4/0	19 X 7 X 64/36	212800	745.91	.714 (18.14)	.613 (15.57)	.0588	.0553	.0594



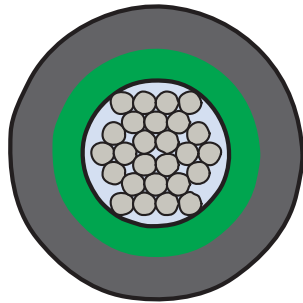
### DURAELECTRIC LIGHT PERFORMANCE SUMMARY

- Service temperature range: -65°C to +200°C
- Fire-resistant and Low Smoke-Zero Halogen (LSZH)
- Excellent abrasion resistance
- 30% lighter than Duraelectric D
- 50% lighter than Teflon®

INSULATION COLOR PER MIL-STD-681	
0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Gray
9	White



**961-107-1500 Dual-wall interconnect cable**  
**Duraelectric insulation, Duraelectric outer jacket, 1500 VAC**



**961-107-1500 dual-wall with Duraelectric insulation, Duraelectric outer jacket**

POWERLOAD COMPATIBILITY	
PowerLoad Contact / Cavity Gauge (AWG)	DUAL-WALL INTERCONNECT CABLE
	Duraelectric Insulation
	Duraelectric Jacket
	1500 VAC
	260°
8	✓
4	✓
2	✓
0	✓
00	✓
0000	✓
✓ = fully compatible	

**TURBOFLEX FEATURES**

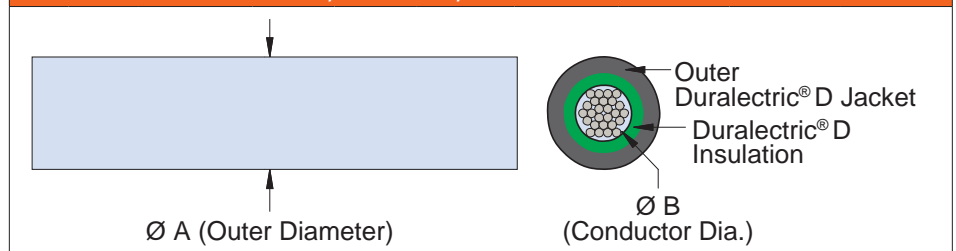
- Ultra-flexible rope lay power cable construction
- Wire gauges and insulation optimized for PowerLoad™ connectors
- Equipped with Duraelectric insulation and outer jacket

**NOTES**

1. Bend radius is 4X – 12X the outer diameter (ØA) depending on application requirements
2. Cable marked with "GLENAIR TURBOFLEX", wire gauge, part number, CAGE 06324.

HOW TO ORDER						
<b>Sample Part Number</b>	<b>961</b>	<b>-107</b>	<b>-1500</b>	<b>-00</b>	<b>-N</b>	<b>-0</b>
<b>Basic No.</b>	TurboFlex dual-wall interconnect cable					
<b>Insulation / Jacket Material</b>	-107 = Duraelectric insulation, Duraelectric outer jacket					
<b>Voltage Rating</b>	-1500 = 1500 VAC					
<b>Wire Size Code (See Table I)</b>	-8, -4, -2, -0, -00, -0000					
<b>Conductor Material</b>	-N = Nickel/Copper (-60° – 260°C)    -S = Silver/Copper (-60° – 200°C) -T = Tin/Copper (-60° – 150°C)					
<b>Outer Jacket Color</b>	See Insulation Color table. Insulation shall be Green for all outer jacket colors except Green. For Green outer jacket, insulation shall be White.					

**TURBOFLEX WIRE SIZE, DIMENSIONS, DC RESISTANCE AND AMPACITY RATINGS**



Wire Size Code	AWG	Strand / Count / AWG	Cir Mil (nom)	Weight lbs/1000 ft. (nom.)	Ø A ±.025	Ø B Ref.	DC Resistance @ 20°C (Ohms / 1000 ft.)		
							Nickel Copper	Silver Copper	Tin Copper
8	8	7 X 95/36	16625	73.26	.263 (6.68)	.159 (4.04)	.7188	.6755	.7252
4	4	7 X 7 X 34/36	41650	168.94	.377 (9.58)	.271 (6.88)	.2979	.2800	.3006
2	2	7 X 7 X 54/36	66150	256.65	.449 (11.40)	.342 (8.69)	.1876	.1763	.1893
0	1/0	7 X 7 X 86/36	105350	396.40	.543 (13.79)	.431 (10.95)	.1178	.1107	.1188
00	2/0	7 X 7 X 108/36	132300	490.62	.596 (15.14)	.483 (12.27)	.0938	.0882	.0946
0000	4/0	19 X 7 X 64/36	212800	776.31	.729 (18.52)	.613 (15.57)	.0588	.0553	.0594



**DURAELECTRIC D PERFORMANCE SUMMARY**

- Service temperature range: -65°C to +260°C
- Fire-resistant and Low Smoke-Zero Halogen (LSZH)
- Resistant to common aerospace, military and industrial fluids
- UV resistant

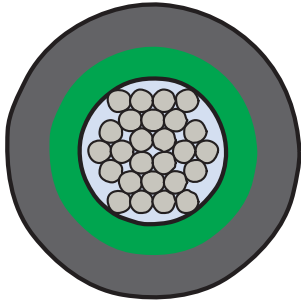
**JACKET/INSULATION COLOR PER MIL-STD-681**

Code	Jacket Color	Insulation Color
0	Black	Green
1	Brown	Green
2	Red	Green
3	Orange	Green
4	Yellow	Green
5	Green	White
6	Blue	Green
7	Violet	Green
8	Gray	Green
9	White	Green

TURBOFLEX CABLE

# 961-107-2000 Dual-wall interconnect cable Duraelectric insulation, Duraelectric outer jacket, 2000 VAC

TURBOFLEX CABLE



**961-107-2000 dual-wall with Duraelectric insulation, Duraelectric outer jacket**

POWERLOAD COMPATIBILITY	
PowerLoad Contact / Cavity Gauge (AWG)	DUAL-WALL INTERCONNECT CABLE
	Duraelectric Insulation
	Duraelectric Jacket
	2000 VAC
	260°
8	+
4	+
2	+
0	+
00	✓
0000	+
✓ = fully compatible + = compatible, but requires special termination process	

HOW TO ORDER						
<b>Sample Part Number</b>	<b>961</b>	<b>-107</b>	<b>-2000</b>	<b>-00</b>	<b>-N</b>	<b>-0</b>
<b>Basic No.</b>	TurboFlex dual-wall interconnect cable					
<b>Insulation / Jacket Material</b>	-107 = Duraelectric insulation, Duraelectric outer jacket					
<b>Voltage Rating</b>	-2000 = 2000 VAC					
<b>Wire Size Code (See Table I)</b>	-8, -4, -2, -0, -00, -0000					
<b>Conductor Material</b>	-N = Nickel/Copper (-60° – 260°C)    -S = Silver/Copper (-60° – 200°C) -T = Tin/Copper (-60° – 150°C)					
<b>Outer Jacket Color</b>	See Insulation Color table. Insulation shall be Green for all outer jacket colors except Green. For Green outer jacket, insulation shall be White.					

TURBOFLEX WIRE SIZE, DIMENSIONS, DC RESISTANCE AND AMPACITY RATINGS									
Wire Size Code	AWG	Strand / Count / AWG	Cir Mil (nom)	Weight lbs/1000 ft. (nom.)	Ø A ±.025	Ø B Ref.	DC Resistance @ 20°C (Ohms / 1000 ft.)		
							Nickel Copper	Silver Copper	Tin Copper
8	8	7 X 95/36	16625	80.38	.290 (7.34)	.159 (4.04)	.7188	.6755	.7252
4	4	7 X 7 X 34/36	41650	179.77	.406 (10.31)	.271 (6.88)	.2979	.2800	.3006
2	2	7 X 7 X 54/36	66150	269.46	.478 (12.14)	.342 (8.69)	.1876	.1763	.1893
0	1/0	7 X 7 X 86/36	105350	411.81	.572 (14.53)	.431 (10.95)	.1178	.1107	.1188
00	2/0	7 X 7 X 108/36	132300	507.50	.625 (15.88)	.483 (12.27)	.0938	.0882	.0946
0000	4/0	19 X 7 X 64/36	212800	796.86	.758 (19.25)	.613 (15.57)	.0588	.0553	.0594

### TURBOFLEX FEATURES

- Ultra-flexible rope lay power cable construction
- Wire gauges and insulation optimized for PowerLoad™ connectors
- Equipped with Duraelectric insulation and outer jacket



### DURALECTRIC D PERFORMANCE SUMMARY

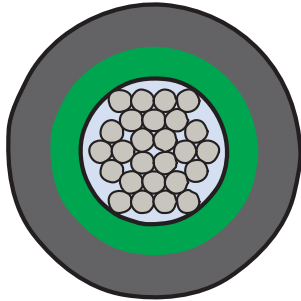
- Service temperature range: -65°C to +260°C
- Fire-resistant and Low Smoke-Zero Halogen (LSZH)
- Resistant to common aerospace, military and industrial fluids
- UV resistant

JACKET/INSULATION COLOR PER MIL-STD-681		
Code	Jacket Color	Insulation Color
0	Black	Green
1	Brown	Green
2	Red	Green
3	Orange	Green
4	Yellow	Green
5	Green	White
6	Blue	Green
7	Violet	Green
8	Gray	Green
9	White	Green

### NOTES

- Bend radius is 4X – 12X the outer diameter (ØA) depending on application requirements
- Cable marked with "GLENAIR TURBOFLEX", wire gauge, part number, CAGE 06324.

961-109-1500 Dual-wall interconnect cable  
 Duraelectric Light insulation, Duraelectric Light outer jacket, 1500 VAC



961-109-1500 dual-wall with Duraelectric Light insulation and outer jacket

POWERLOAD COMPATIBILITY	
PowerLoad Contact / Cavity Gauge (AWG)	DUAL-WALL INTERCONNECT CABLE
	Duraelectric Light Insulation
	Duraelectric Light Jacket
	1500 VAC
	200°
8	✓
4	✓
2	✓
0	✓
00	✓
0000	✓
✓ = fully compatible	

**TURBOFLEX FEATURES**

- Ultra-flexible rope lay power cable construction
- Wire gauges and insulation optimized for PowerLoad™ connectors
- Equipped with Duraelectric Light insulation and outer jacket

**NOTES**

- Bend radius is 4X – 12X the outer diameter (ØA) depending on application requirements
- Cable marked with "GLENAIR TURBOFLEX", wire gauge, part number, CAGE 06324.

HOW TO ORDER						
Sample Part Number	961	-109	-1500	-00	-N	-0
Basic No.	TurboFlex dual-wall interconnect cable					
Insulation / Jacket Material	-109 = Duraelectric Light insulation, Duraelectric Light outer jacket					
Voltage Rating	-1500 = 1500 VAC					
Wire Size Code (See Table I)	-8, -4, -2, -0, -00, -0000					
Conductor Material	-N = Nickel/Copper (-60° – 260°C) -S = Silver/Copper (-60° – 200°C) -T = Tin/Copper (-60° – 150°C)					
Outer Jacket Color	See Insulation Color table. Insulation shall be Green for all outer jacket colors except Green. For Green outer jacket, insulation shall be White.					

**TURBOFLEX WIRE SIZE, DIMENSIONS, DC RESISTANCE AND AMPACITY RATINGS**

Ø A (Outer Diameter)

Outer Duraelectric® L Jacket  
Duraelectric® L Insulation  
Ø B (Conductor Dia.)

Wire Size Code	AWG	Strand / Count / AWG	Cir Mil (nom)	Weight lbs/1000 ft. (nom.)	Ø A ±.025	Ø B Ref.	DC Resistance @ 20°C (Ohms / 1000 ft.)		
							Nickel Copper	Silver Copper	Tin Copper
8	8	7 X 95/36	16625	67.82	.270 (6.86)	.159 (4.04)	.7188	.6755	.7252
4	4	7 X 7 X 34/36	41650	160.27	.384 (9.75)	.271 (6.88)	.2979	.2800	.3006
2	2	7 X 7 X 54/36	66150	246.33	.457 (11.61)	.342 (8.69)	.1876	.1763	.1893
0	1/0	7 X 7 X 86/36	105350	382.92	.551 (14.00)	.431 (10.95)	.1178	.1107	.1188
00	2/0	7 X 7 X 108/36	132300	474.31	.601 (15.27)	.483 (12.27)	.0938	.0882	.0946
0000	4/0	19 X 7 X 64/36	212800	756.82	.737 (18.72)	.613 (15.57)	.0588	.0553	.0594



**DURAELECTRIC LIGHT PERFORMANCE SUMMARY**

- Service temperature range: -65°C to +200°C
- Fire-resistant and Low Smoke-Zero Halogen (LSZH)
- Excellent abrasion resistance
- 30% lighter than Duraelectric D
- 50% lighter than Teflon®

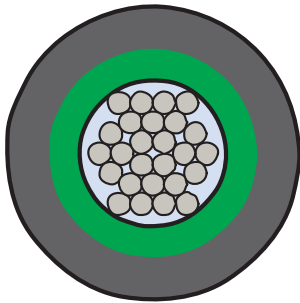
INSULATION COLOR PER MIL-STD-681	
0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Gray
9	White

TURBOFLEX CABLE

# 961-109-2000 Dual-wall interconnect cable

## Duraelectric Light insulation, Duraelectric Light outer jacket, 2000 VAC

TURBOFLEX CABLE



**961-109-2000 dual-wall with Duraelectric Light insulation and outer jacket**

POWERLOAD COMPATIBILITY	
PowerLoad Contact / Cavity Gauge (AWG)	DUAL-WALL INTERCONNECT CABLE
	Duraelectric Light Insulation
	Duraelectric Light Jacket
	2000 VAC
	200°
8	+
4	+
2	✓
0	✓
00	✓
0000	+
✓ = fully compatible + = compatible, but requires special termination process	

### TURBOFLEX FEATURES

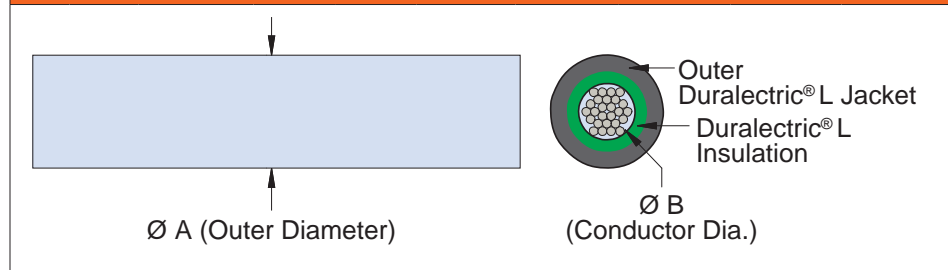
- Ultra-flexible rope lay power cable construction
- Wire gauges and insulation optimized for PowerLoad™ connectors
- Equipped with Duraelectric Light insulation and outer jacket

### NOTES

1. Bend radius is 4X – 12X the outer diameter (ØA) depending on application requirements
2. Cable marked with "GLENAIR TURBOFLEX", wire gauge, part number, CAGE 06324.

HOW TO ORDER						
<b>Sample Part Number</b>	<b>961</b>	<b>-109</b>	<b>-2000</b>	<b>-00</b>	<b>-N</b>	<b>-0</b>
<b>Basic No.</b>	TurboFlex dual-wall interconnect cable					
<b>Insulation / Jacket Material</b>	-109 = Duraelectric Light insulation, Duraelectric Light outer jacket					
<b>Voltage Rating</b>	-2000 = 2000 VAC					
<b>Wire Size Code (See Table I)</b>	-8, -4, -2, -0, -00, -0000					
<b>Conductor Material</b>	-N = Nickel/Copper (-60° – 260°C)    -S = Silver/Copper (-60° – 200°C) -T = Tin/Copper (-60° – 150°C)					
<b>Outer Jacket Color</b>	See Insulation Color table. Insulation shall be Green for all outer jacket colors except Green. For Green outer jacket, insulation shall be White.					

### TURBOFLEX WIRE SIZE, DIMENSIONS, DC RESISTANCE AND AMPACITY RATINGS



Wire Size Code	AWG	Strand / Count / AWG	Cir Mil (nom)	Weight lbs/1000 ft. (nom.)	Ø A ±.025	Ø B Ref.	DC Resistance @ 20°C (Ohms / 1000 ft.)		
							Nickel Copper	Silver Copper	Tin Copper
8	8	7 X 95/36	16625	71.00	.287 (7.29)	.159 (4.04)	.7188	.6755	.7252
4	4	7 X 7 X 34/36	41650	164.76	.401 (10.19)	.271 (6.88)	.2979	.2800	.3006
2	2	7 X 7 X 54/36	66150	250.74	.472 (11.99)	.342 (8.69)	.1876	.1763	.1893
0	1/0	7 X 7 X 86/36	105350	388.21	.566 (14.38)	.431 (10.95)	.1178	.1107	.1188
00	2/0	7 X 7 X 108/36	132300	481.89	.620 (15.75)	.483 (12.27)	.0938	.0882	.0946
0000	4/0	19 X 7 X 64/36	212800	764.61	.753 (19.13)	.613 (15.57)	.0588	.0553	.0594



### DURAELECTRIC LIGHT PERFORMANCE SUMMARY

- Service temperature range: -65°C to +200°C
- Fire-resistant and Low Smoke-Zero Halogen (LSZH)
- Excellent abrasion resistance
- 30% lighter than Duraelectric D
- 50% lighter than Teflon®

INSULATION COLOR PER MIL-STD-681	
0	Black
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Gray
9	White

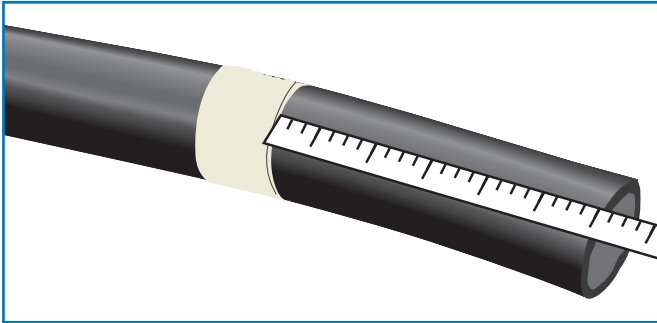


## Insulation stripping procedure

TURBOFLEX CABLE

### Step 1

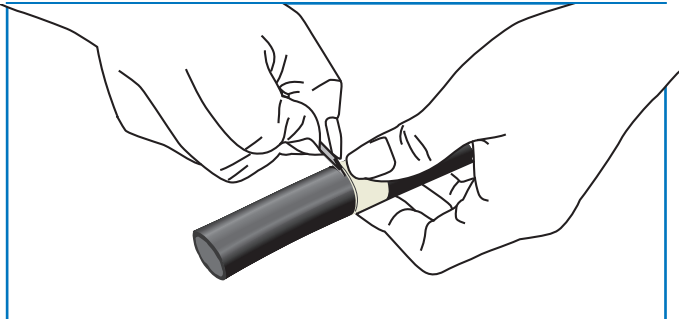
Using scale, mark off required length of insulation to be removed. Wrap tape around diameter of cable to provide a visual guide to indicate where jacket shall be scored.



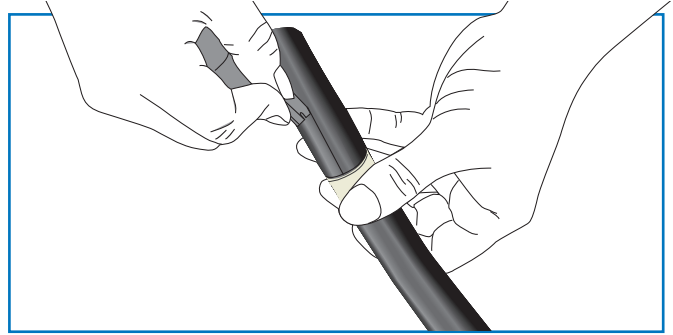
### Step 2

**A)** Make a shallow incision (score) at the guide mark. It is not necessary to cut completely through the outer jacket. Continue scoring the insulation around the complete circumference of the cable.

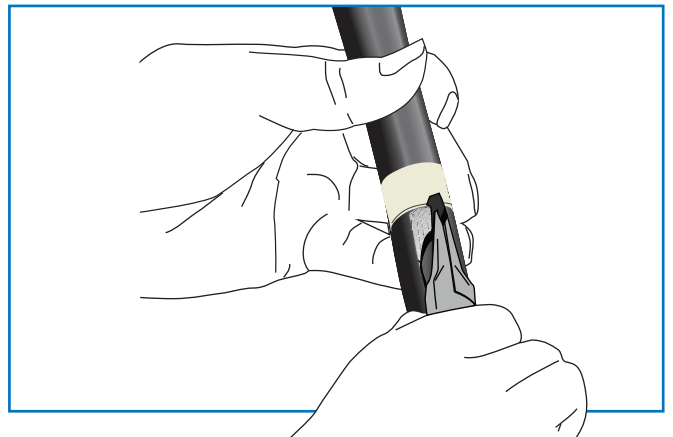
**Note: when scoring insulation be sure not to cut completely through the outer material which could damage wire strands.**



**B)** Score insulation lengthwise along the entire section of insulation to be removed.

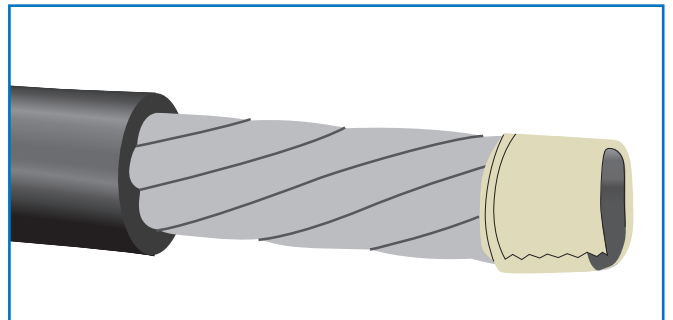


**C)** Using needle nose pliers, grab the insulation material where the lengthwise score meets the guide mark. Gently pull the insulation away, working downwards along the incision towards the end of the cable. Once insulation is removed wire is ready for crimp termination.



### Step 3

If crimp process will not be completed immediately, wrap exposed wire strands with tape to prevent fraying.



## Notes on wire crimping

TURBOFLEX CABLE

**Since wire gauges are defined by the cross sectional area of the metal conductor, please note the outer diameter of TurboFlex wires may be slightly larger than other wires of the same gauge. Consult the catalog pages for wire dimensions.**

### Note 1

Select appropriate crimp tool and die set as recommended by contact manufacturer. For optimal results, Glenair recommends the use of an indenting-type crimp die over a hex-style crimper.

### Note 2

Always follow contact manufacturer specifications for minimum and maximum wire dimensions for the given contact size.

### Note 3

Check TurboFlex wire-to-contact fit. The wire should fit freely but snugly into the crimp barrel. Never trim away individual strands to force-fit wire into a too-small crimp barrel.

### Note 4

When crimping, hold the crimp die closed for a minimum of 8 seconds to allow adequate dwell time for wire strand deformation. Too-rapid crimping can result in a mechanically weak crimp joint.





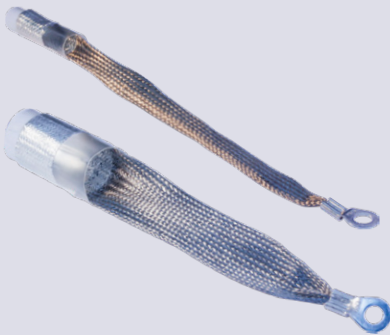
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