



LUMINUS

Luminus: Small, lightweight, low-cost circular solutions



Overview

Luminus are lightweight, cost-effective connectors that are highly reliable and simple to use. With multiple configurations and arrangements available, a solution can be tailored to suite your application’s exact requirements. Proven solutions can be found in single engine general aviation, multiple-engine business and passenger jets, and high performance rotary aircraft.

Ideal where space is limited, these innovative, “scoop-proof” connectors feature a locking mechanism that ensures stability, are suitable for blind-mating, and are RoHS compliant.

Features & Benefits

1/4 turn bayonet style connection; push and snap connection	Makes wire installation/maintenance easy and efficient; positive “click” when locked
Interfacial and Triple-Barrier Seal	Enables environmental sealing (IP 67 rating)
Multiple Keying Positions	Ensures proper connectivity
Multiple Configurations and Accessories	Tailored solutions to meet application needs
Contacts	AS39029 MIL Spec contacts for broad application compatibility. Stamped & Formed available as lower cost option
Visual markings	Visual aid for easy assembly
Rugged Polyamide Housings; 500 mating cycles	Durability
Blind-Mate Connection	Enables simple, blind mating; easy assembly
D160, M81714, FAR25 Compliance	Meets demanding military-aerospace environmental conditions

Materials & Specifications

Materials	Insulator Body: Polyamide 6/6 (Nylon)	
	Grommet & Face Seal: Silicone Rubber	
	Contact Retainer: Stainless Steel	
Temperature Range	-65°C to 125°C	
Temperature Life	500 hours @ 85°C	
Insulation Resistance	5000 MΩ Min. @ 500 VDC	
Dielectric Withstanding	1500 VAC, 60 Hz @ Sea Level, 1ma	
	300 VAC, 60 Hz @ 70,000 ft, 2ma	
Durability	500 mating cycles	
Altitude Immersion	5% salt solution, 75k feet	
	5000Mohms @ 1500 VAC, sea level	
	5000Mohms @ 300 VAC, 70k ft	
	5000Mohms @ 300 VAC, 100k ft	
Temperature Cycling	5(1) Hour Cycles: -65°C to 125°C	
Thermal Shock	-65°C to 200°C	
Vibration	30G Sinusoidal; 43.96G Random	
Shock	300G, 3msec, Half-Sine	
Salt Spray	5% Salt Spray @ 95°C for 48 Hours	
Humidity	10 Days @ 25°C to 65°C, 90% - 95% RH	
Seal Rating	IP67	
RoHS & REACH Compliance	Yes	

Fluid Immersion	Lubricating Oil per Mil-Prf-7808	
	Cleaning Compound per Mil-Prf-87937, Alkaline Base	
	Isopropyl Alcohol & Mineral Spirit Solution	
	Skydrol Hydraulic Fluid	
	Hydraulic Fluids per MIL-PRF-83282 MIL-PRF-87257	
	Ethylene Glycol	
	Propylene Glycol	
Flammability	Aviation Jet A	
	UL94, V0.	
	DOTG section 26.6.2 & 26.6.3	
Contact Insertion & Removal Force (not to exceed)	FAR Part 25 App F Part I	
	size 22	10 lbs
	size 20	10 lbs
	size 16	13 lbs
Contact Retention (minimum)	size 12	15 lbs
	size 22	10 lbs
	size 20	15 lbs
	size 16	25 lbs
	size 12	30 lbs

Part Numbering-Twist & Lock

											
# of Positions	Contact Size	Shell Size	Key	Color	Plug P/N	Inline Receptacle P/N	Circular Receptacle P/N	Square Receptacle P/N	Jamnut PCB Mount P/N	Oval Receptacle P/N	Jam Nut Rear Mount Receptacle P/N
1	Quadrax	8	-	-	SJS801110	SJS801120	-	SJS801130*	SJS801160*	SJS801170*	SJS801190*
2	22D	5	-	Black	SJS830250	SJS830270	-	-	SJS502160	SJS502170	SJS502190
3	12	10	-	-	SJS003110	SJS003120*	-	-	-	-	-
3	12	11	-	Black	SJS103110*	SJS103120*	-	-	-	-	-
3	16	8	A	White	SJS840310	SJS840300	SJS840320	SJS803730	-	-	-
3	16	8	B	Black	SJS840340	SJS840350	SJS840330	SJS803130	-	-	-
3	20	7	-	White	SJS862300	SJS862400	-	SJS862450	-	-	-
3	22D	5	-	Black	SJS830210	SJS830230	-	-	SJS503160	SJS503170	SJS503190
4	16	8	A	White	SJS840410	SJS840400	SJS840420*	SJS804730	SJS840760	-	SJS804790
4	16	8	B	White	SJS840440	SJS840450	SJS840430	-	-	-	-
4	20	7	-	Black	SJS704110	SJS704120	-	-	-	-	-
5	22D	8	-	White	SJS860510	SJS860500	SJS860520	SJS805730	-	-	-
5	22D	8	-	White	SJS870510	-	SJS870520	-	-	-	-
6	22D	7	-	Black	SJS861700	SJS861800	-	-	SJS706160	-	-
8	22D	7	A	Black	SJS830100	SJS830200	-	SJS830220	SJS708160	SJS708170	SJS708190
8	22D	7	B	Green	SJS830101	SJS830201	-	SJS830221	-	-	-
8	22D	7	C	Yellow	SJS830102	SJS830202	-	SJS830222	-	-	-
9	22D	8	-	Black	SJS862100	SJS862200	-	SJS809130	-	-	-
12	16	14	-	Black	SJS412110	SJS412120	-	-	-	-	-
12	22D	8	-	White	SJS861300	SJS861400	-	SJS812730	SJS812760*	-	-
12	22D	11	A	Black	SJS112110	SJS112120	-	-	SJS112160	-	-
12	22D	11	B	Green	SJS112210	SJS112220	-	-	SJS112260	-	-
12	22D	11	C	White	SJS112310	SJS112320	-	-	SJS112360	-	-
12	22D	11	D	Yellow	SJS112410	SJS112420	-	-	SJS112460	-	-
25	22D	14	A	Black	SJS425110	SJS425120	-	-	SJS425160	-	-
25	22D	14	B	Green	SJS425210	SJS425220	-	-	SJS425260	-	-
25	22D	14	C	White	SJS425310	SJS425320	-	-	SJS425360	-	-
25	22D	14	D	Yellow	SJS425410	SJS425420	-	-	SJS425460	-	-
5	12 (3)	11	-	Black	SJS1AE110*	SJ1AE120*	-	-	-	-	-
	22 (2)										
9	16	8	-	White	SJS860100	SJS860200	-	SJS8AC730	-	-	-
	22D										
9	16	10	-	White	SJS860910	SJS860900	-	SJS0AA730	-	-	-
	22D										
10	16	10	-	White	SJS861100	SJS861200	-	SJS0A8730*	SJS0BB760*	-	-
	22D										

* Available at extended lead times

Applications

- Aerospace Lighting
- Power & Signal Distribution
- Cabin Service Systems
- Actuation & Sensors
- In-Flight Entertainment



Shell Sizes

05 (max dia: 0.318)

-  2, size 22, Twist & Lock
-  3, size 22, Twist & Lock

06 (max dia: 0.390)

-  1, size 16 & 20, Push & Pull

07 (max dia: 0.448)

-  6, size 22, Twist & Lock
-  8, size 22, Twist & Lock
-  1, size 12, Push & Pull

08 (max dia: 0.528)

-  4, size 16 , Twist & Lock
-  5, size 22, Twist & Lock
-  9: 1, size 16; 8 size 22 Twist & Lock

08 (max dia: 0.528)- Continued

-  9, size 22Twist & Lock
-  3, size 16 Twist & Lock
-  3, size 20 Push & Pull

10 (max dia: 0.630)

-  9: 4, size 16; 5 size 22Twist & Lock
-  10: 4, size 16; 6 size 22 Twist & Lock

11 (max dia: 0.700)

-  3, size 12, Twist & Lock
-  3, size 16, Push & Pull

14 (max dia: 0.875)

-  25, size 22, Twist & Lock

More from Amphenol Pcd's Luminus Series

Luminus High Speed

Amphenol Pcd has expanded the capability of Luminus to support industry standard TWINAX and QUADRIX style contacts. Luminus High Speed provides exceptional performance in tight spaces, with a svelte shell size 8 (0.512") outer diameter. With the explosive growth in ethernet enabled devices (IOT), this size and configuration is particularly suited for end point applications, such as individual avionics sensors, panel mounted units, seat back and wall mounted displays and monuments. Unlike many of the competitive connectors, which are multipiece assemblies, Luminus High Speed shells are a single piece housing, impervious to humidity and dust, further enhancing clean, crack free operations over the full operating temperature and environmental conditions.

Ask about New Luminus Accessories Concepts

- Two stage Latch Connector
- 3-Way H Splice
- 3-Way T Splice
- 3-Way Y Splice
- 3-Way Vertical Distribution

Amphenol Pcd
www.amphenolpcd.com